MASS GRADING PLANS

THE GROVE - AREA 1

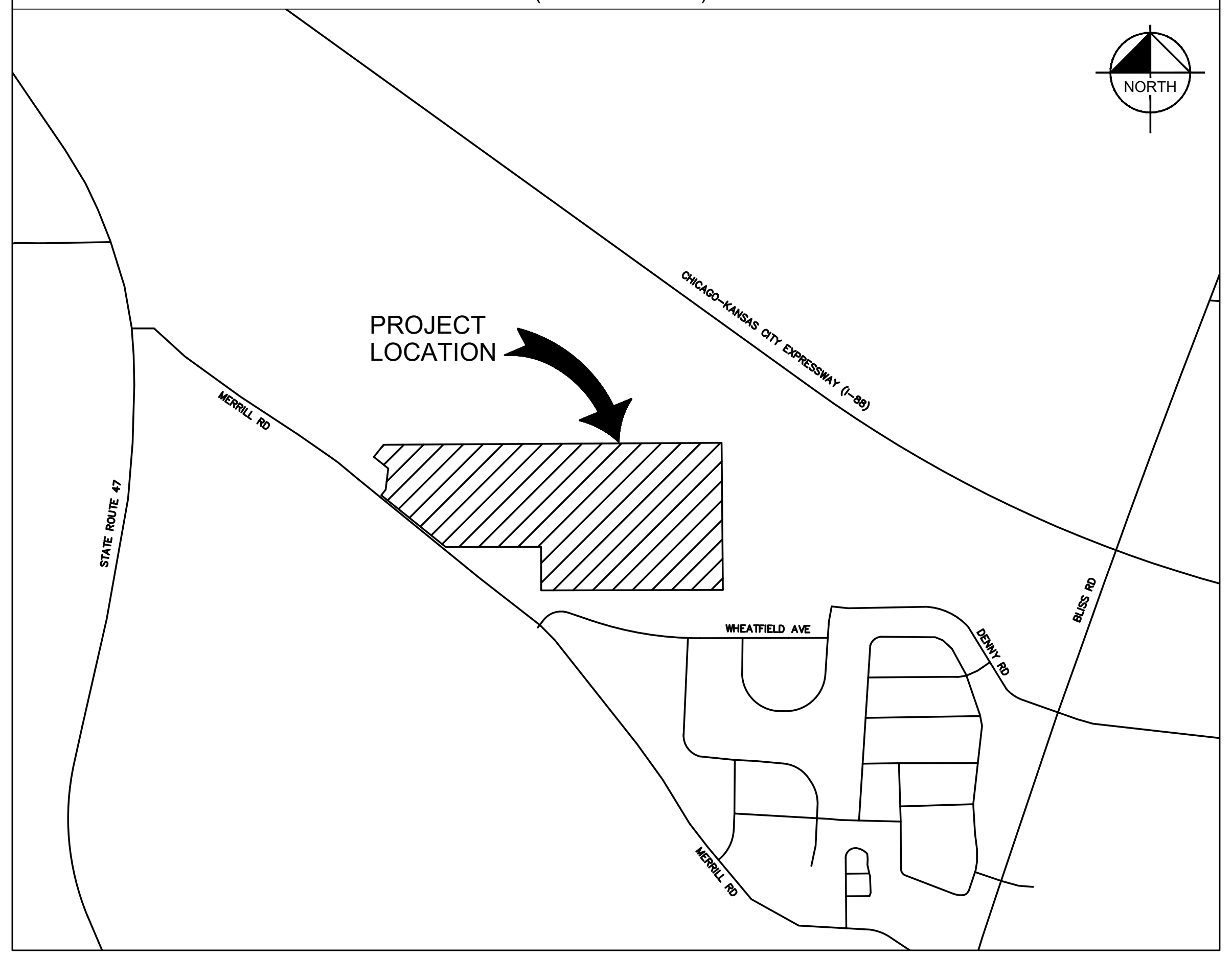
NE CORNER OF MERRIL ROAD & WHEATFIELD AVE

SUGAR GROVE, IL 60554

Call Before You Dig
JULIE
1-800-892-0123

LOCATION MAP

(NOT TO SCALE)



UTILITY AND GOVERNING AGENCY CONTACTS

PUBLIC WORKS DEPARTMENT
VILLAGE OF SUGAR GROVE
601 HEARTLAND DRIVE
SUGAR GROVE, IL 60554
TEL: (630) 391-7235
CONTACT: BRAD MERKEL

WATER SERVICE
VILLAGE OF SUGAR GROVE
601 HEARTLAND DRIVE
SUGAR GROVE, IL 60554
TEL: (630) 391-7235
CONTACT: CHRIS LEMKE

STORM SEWER SERVICE
VILLAGE OF SUGAR GROVE
601 HEARTLAND DRIVE
SUGAR GROVE, IL 60554
TEL: (630) 391-7235
CONTACT: BRIAN SCHIBER

SANITARY SERVICE
FOX METRO WASTEWATER
RECLAMATION DISTRICT
682 STATE ROUTE 31,
OSWEGO, IL 60543
TEL: (630) 892-4378
CONTACT: KERRY BEHR, PE

ROADWAY AUTHORITY
VILLAGE OF SUGAR GROVE
601 HEARTLAND DRIVE
SUGAR GROVE, IL 60554
TEL: (630) 391-7235
CONTACT: BRIAN SCHIBER

POWER COMPANY
COMMONWEALTH EDISON
2100 SWIFT DRIVE
OAK BROOK, IL 60523
TEL: (800) 334-7661

NATURAL GAS COMPANY
NICOR
1011 WILEY ROAD
SCHAUMBURG, IL 60173
TEL: (888) 642-6748

FIRE DEPARTMENT
SUGAR GROOVE FIRE PROTECTION SERVICE
25 S. MUNICIPAL DRIVE
SUGAR GROOVE, IL 60554
TEL: (630) 466-4513
CONTACT: FIRE CHIEF BRENDAN MORAN

SUGAR GROVE TOWNSHIP
54 SNOW STREET
SUGAR GROOVE, IL 60554
TEL: (630) 466-4283
CONTACT: TOM ROWE

PROJECT TEAM

DEVELOPER
CROWN COMMUNITY DEVELOPMENT
1751 A WEST DIEHL ROAD
NAPERVILLE, IL 60563
TEL: (630) 851-5490
EMAIL: DOLSEM@CROWN-CHICAGO.COM
CONTACT: DAN OLSEM

GEOTECH
TSC ASSOCIATES
457 E GUNDERSEN DRIVE
CAROL STREAM, IL 60188
TEL: (630) 462-2600
EMAIL: MVM@TSCCORP.COM
CONTACT: MICHAEL V. MACHALINSKI, PE

TRAFFIC ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC.
4201 WINFIELD ROAD, SUITE 600
WARRENVILLE, IL 60555
TEL: (630) 487-3395
CONTACT: RORY FANCLER-SPLITT

ENVIRONMENTAL ENGINEER
HEY & ASSOCIATES
EMAIL: VMOSCA@HEYASSOC.COM
CONTACT: VINCE MOSCA

CIVIL ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC.
570 LAKE COOK RD, SUITE 200
DEERFIELD, IL 60015
TEL: (331) 425-8039
EMAIL: ERIC.TRACY@KIMLEY-HORN.COM
CONTACT: ERIC TRACY, PE
EMAIL: JOE HANNAH
CONTACT: JOE.HANNAH@KIMLEY-HORN.COM

SURVEYOR
KIMLEY-HORN AND ASSOCIATES, INC.
4201 WINFIELD ROAD, SUITE 600
WARRENVILLE, IL 60555
TEL: (331) 209-0476
EMAIL: BRAD.STROHL@KIMLEY-HORN.COM
CONTACT: BRAD STROHL, PLS

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NOTES

1. JOB SITE SAFETY, SUPERVISION, AND MEANS & METHODS OF CONSTRUCTION ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
2. ANY REVISIONS TO THE STAMPED APPROVED FINAL ENGINEERING PLANS MUST BE REVIEWED AND APPROVED BEFORE ANY WORK IS COMPLETED REGARDING THE REVISED ITEMS.
3. ALL REVISED ITEMS MUST BE ACCOUNTED FOR IN RECORD DRAWINGS.
4. NOTIFICATION OF PUBLIC WORKS A MINIMUM OF 48 HOURS PRIOR TO START OR RESUMING OF CONSTRUCTION ACTIVITIES IS REQUIRED.

BENCHMARKS & LEGAL DESCRIPTION

REFER TO V0.0 FOR BENCHMARKS LISTED BY LICENSED LAND SURVEYOR

PROFESSIONAL ENGINEER'S CERTIFICATION

I, ERIC TRACY, A LICENSED PROFESSIONAL ENGINEER OF IL, HEREBY CERTIFY THAT THIS SUBMISSION, PERTAINING ONLY TO THE "C" SERIES CIVIL SHEETS LISTED ABOVE BUT EXCLUDING DETAILS PREPARED BY OTHERS, WAS PREPARED ON BEHALF OF CROWN COMMUNITY DEVELOPMENT BY KIMLEY-HORN AND ASSOCIATES, INC. UNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS.

DATED THIS 21ST DAY OF APRIL, A.D., 2025.

IL LICENSED PROFESSIONAL ENGINEER 062-067482
MY LICENSE EXPIRES ON NOVEMBER 30TH, 2025
DESIGN FIRM REGISTRATION NUMBER: 184002012-0006

ERIC J. TRACY
062-067482
Date of Expiration: 11-30-25

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

Kimley»Horn

570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847-260-7804
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

COVER SHEET

THE GROVE - AREA 1
(SINGLE FAMILY)
SUGAR GROVE, IL 60554

ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009
SHEET NUMBER
C0.0

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C0.0 COVER SHEET.dwg C0.0 Jul 01, 2025 9:26am by: Joe.Hannah

GENERAL NOTES

1. EXISTING SITE TOPOGRAPHY, UTILITIES, RIGHT-OF-WAY AND HORIZONTAL CONTROL SHOWN ON THE DRAWINGS WERE OBTAINED FROM A SURVEY PREPARED BY:

   KIMLEY-HORN & ASSOCIATES, INC.
   4201 WINFIELD ROAD, SUITE 600
   WARRENVILLE, IL 60555
   TEL: (331) 209-0476

   COPIES OF THE SURVEY ARE AVAILABLE FROM THE ENGINEER. SITE CONDITIONS MAY HAVE CHANGED SINCE THE SURVEY WAS PREPARED. CONTRACTORS TO VISIT SITE TO FAMILIARIZE THEMSELVES WITH THE CURRENT CONDITIONS.

2. COPIES OF SOILS INVESTIGATION REPORTS MAY BE OBTAINED FROM THE OWNER. ANY BRACING, SHEETING OR SPECIAL CONSTRUCTION METHODS DEEMED NECESSARY BY THE CONTRACTOR IN ORDER TO INSTALL THE PROPOSED IMPROVEMENTS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PROJECT. ANY ADDITIONAL SOILS DATA NEEDED TO CONFIRM THE CONTRACTOR'S OPINIONS OF THE SUBSOIL CONDITIONS SHALL BE DONE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL OBTAIN THE OWNER'S WRITTEN AUTHORIZATION TO ACCESS THE SITE TO CONDUCT A SUPPLEMENTAL SOILS INVESTIGATION.

3. THE CONTRACTOR SHALL PHOTOGRAPH THE WORK AREA PRIOR TO CONSTRUCTION FOR THE PURPOSE OF DOCUMENTING EXISTING CONDITIONS.

4. EXCEPT WHERE MODIFIED BY THE CONTRACT DOCUMENTS, ALL PROPOSED WORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS WHICH ARE HEREBY MADE A PART HEREOF:

   A. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS," AS PREPARED BY IDOT, LATEST EDITION.

   B. "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" AS PUBLISHED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA), LATEST EDITION.

   C. "ILLINOIS RECOMMENDED STANDARDS FOR SEWAGE WORKS," AS PUBLISHED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA), LATEST EDITION.

   D. REGULATIONS, STANDARDS AND GENERAL REQUIREMENTS SET FORTH BY THE MUNICIPALITY, UNLESS OTHERWISE NOTED ON THE PLANS.

   E. THE NATIONAL ELECTRIC CODE.

   F. ALL APPLICABLE PROVISIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT ARE HEREIN INCORPORATED BY REFERENCE.

5. STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS, AND RECURRING SPECIAL PROVISIONS, CONSTRUCTION PLANS, AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THE CONTRACTOR'S WORK MAY NOT BE SPECIFICALLY NOTED, BUT ARE CONSIDERED A PART OF THE CONTRACTOR'S CONTRACT.

6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL ITEMS REQUIRED FOR CONSTRUCTION OF THE PROJECT, AS SHOWN ON THE PLANS, ARE INCLUDED IN THE CONTRACT. ANY ITEM NOT SPECIFICALLY INCLUDED IN THE CONTRACT, BUT SHOWN ON THE PLANS, SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IN THE EVENT OF A DISCREPANCY WITH THE PLANS AND QUANTITIES.

7. THE CONTRACTOR IS RESPONSIBLE FOR HAVING A SET OF "APPROVED" ENGINEERING PLANS WITH THE LATEST REVISION DATE ON THE JOB SITE PRIOR TO THE START OF CONSTRUCTION. IF THERE ARE ANY DISCREPANCIES WITH WHAT IS SHOWN ON THE CONSTRUCTION PLANS, HE MUST IMMEDIATELY REPORT THEM TO THE SURVEYOR OR ENGINEER BEFORE DOING ANY WORK. OTHERWISE, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY. IN THE EVENT OF DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, SPECIFICATIONS, AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSIONS OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT THE CONTRACTOR'S OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTIONS ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.

8. THE CONTRACTOR SHALL SUBSCRIBE TO ALL GOVERNING REGULATIONS AND SHALL OBTAIN ALL NECESSARY PUBLIC AGENCY PERMITS PRIOR TO STARTING WORK. THE CONTRACTOR, BY USING THESE PLANS FOR THEIR WORK, AGREE TO HOLD HARMLESS KIMLEY-HORN AND ASSOCIATES, INC, THE MUNICIPALITY, THEIR EMPLOYEES AND AGENTS AND THE OWNER FROM AND AGAINST ANY AND ALL LIABILITY, CLAIMS, DAMAGES, AND THE COST OF DEFENSE ARISING OUT OF CONTRACTOR(S) PERFORMANCE OF THE WORK DESCRIBED HEREIN.

9. THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, TIME OF PERFORMANCE, PROGRAMS OR FOR ANY SAFETY PRECAUTIONS USED BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS.

10. CONSTRUCTION MATERIALS AND/OR EQUIPMENT MAY NOT BE STORED IN THE RIGHT-OF-WAY, AS DIRECTED BY THE OWNER.

11. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHT-OF-WAYS ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT WITH LOCATIONS OF THE NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.

12. OWNER SHALL OBTAIN EASEMENTS AND APPROVAL OF PERMITS NECESSARY TO FACILITATE CONSTRUCTION OF THE PROPOSED UTILITIES. THE CONTRACTOR, HOWEVER, SHALL FURNISH ALL REQUIRED BONDS AND EVIDENCE OF INSURANCE NECESSARY TO SECURE THESE PERMITS AND EASEMENTS.

13. THE CONTRACTOR SHALL PRESERVE ALL CONSTRUCTION STAKES UNTIL THEY ARE NO LONGER NEEDED. ANY STAKES DESTROYED OR DISTURBED BY THE CONTRACTOR PRIOR TO THEIR USE SHALL BE RESET BY THE SURVEYOR AT THE CONTRACTOR'S EXPENSE.

14. NOTIFICATION OF COMMENCING CONSTRUCTION:

    14.A. THE CONTRACTOR SHALL NOTIFY AFFECTED GOVERNMENTAL AGENCIES IN WRITING AT LEAST THREE FULL WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL NOTIFY, AS NECESSARY, ALL TESTING AGENCIES, THE MUNICIPALITY, AND THE OWNER 48-HOURS IN ADVANCE OF CONSTRUCTION.

    14.B. FAILURE OF THE CONTRACTOR TO ALLOW PROPER NOTIFICATION TIME WHICH RESULTS IN THE TESTING COMPANIES TO BE UNABLE TO VISIT THE SITE AND PERFORM TESTING WILL CAUSE THE CONTRACTOR TO SUSPEND THE OPERATION TO BE TESTED UNTIL THE TESTING AGENCY CAN SCHEDULE TESTING OPERATIONS. COST OF SUSPENSION OF WORK SHALL BE BORNE BY THE CONTRACTOR.

15. ALL CONTRACTORS SHALL KEEP ACCESS AVAILABLE AT ALL TIMES FOR ALL EMERGENCY TRAFFIC, AS DIRECTED BY THE MUNICIPALITY.

16. ANY EXISTING SIGNS, LIGHT STANDARDS, AND UTILITY POLES THAT INTERFERE WITH CONSTRUCTION OPERATIONS AND ARE NOT NOTED ON THE PLANS FOR DISPOSAL SHALL BE REMOVED AND RESET BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE, AS DIRECTED BY THE ENGINEER. ANY DAMAGE TO THESE ITEMS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE TO THE SATISFACTION OF THE OWNER. ANY SIGNS NOT REQUIRED TO BE RESET SHALL BE DELIVERED TO THE RESPECTIVE OWNERS.

17. ALL TREES TO BE SAVED SHALL BE IDENTIFIED PRIOR TO CONSTRUCTION BY THE LANDSCAPE ARCHITECT AND SHALL BE PROTECTED PER IDOT SECTION 201.05. THE RIGHT-OF-WAY LINE AND LIMITS OF THE CONTRACTOR'S OPERATIONS SHALL BE CLEARLY DEFINED THROUGHOUT THE CONSTRUCTION PERIOD. ALL TREES NOTED TO REMAIN SHALL BE PROTECTED FROM DAMAGE TO TRUNKS, BRANCHES AND ROOTS. NO EXCAVATING, FILLING OR GRADING IS TO BE DONE INSIDE THE DRIP LINE OF TREES UNLESS OTHERWISE INDICATED.

18. LIMB PRUNING SHALL BE PERFORMED UNDER THE SUPERVISION OF AN APPROVED LANDSCAPE ARCHITECT, FORESTER, OR ARBORIST AND SHALL BE UNDERTAKEN IN A TIMELY FASHION SO AS NOT TO INTERFERE WITH CONSTRUCTION. ALL LIMBS, BRANCHES, AND OTHER DEBRIS RESULTING FROM THE CONTRACTOR'S WORK SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE. ALL CUTS OVER ONE (1) INCH IN DIAMETER SHALL BE PAINTED WITH AN APPROVED TREE PAINT.

19. ALL EXISTING PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAWCUT ALONG LIMITS OF PROPOSED REMOVAL BEFORE COMMENCEMENT OF PAVEMENT REMOVAL.

20. ALL EXISTING UTILITIES OR IMPROVEMENTS, INCLUDING WALKS, CURBS, PAVEMENT, AND PARKWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE PROMPTLY RESTORED TO THEIR RESPECTIVE ORIGINAL CONDITION. THE CONTRACTOR'S WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNLESS A PAY ITEM IS LISTED ON THE BID LIST.

21. REMOVAL OF SPECIFIED ITEMS, INCLUDING BUT NOT LIMITED TO, PAVEMENT, SIDEWALK, CURB, CURB AND GUTTER, CULVERTS, ETC., SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR ANY PERMITS REQUIRED FOR SUCH DISPOSAL.

22. THE CONTRACTOR SHALL COLLECT AND REMOVE ALL CONSTRUCTION DEBRIS, EXCESS MATERIALS, TRASH, OIL AND GREASE RESIDUE, MACHINERY, TOOLS, AND OTHER MISCELLANEOUS ITEMS WHICH WERE NOT PRESENT PRIOR TO PROJECT COMMENCEMENT AT NO ADDITIONAL EXPENSE TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY AND ALL PERMITS NECESSARY FOR THE HAULING AND DISPOSAL REQUIRED FOR CLEANUP, AS DIRECTED BY THE ENGINEER OR OWNER. BURNING ON THE SITE IS NOT PERMITTED.

23. NO UNDERGROUND WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE COVERED UNTIL IT HAS BEEN APPROVED BY THE MUNICIPALITY. APPROVAL TO PROCEED MUST BE OBTAINED FROM THE MUNICIPALITY PRIOR TO INSTALLING PAVEMENT BASE, BINDER, AND SURFACE, AND PRIOR TO POURING ANY CONCRETE AFTER FORMS HAVE BEEN SET, AS NECESSARY.

24. WHERE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, EXISTING DRAINAGE STRUCTURES AND PIPE SHALL BE CLEANED OF DEBRIS AND PATCHED AS NECESSARY TO ASSURE INTEGRITY OF THE STRUCTURE. THE CONTRACTOR'S WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE MERGED INTO THE CONTRACT UNIT PRICE EACH FOR STRUCTURES AND CONTRACT UNIT PRICE PER LINEAL FOOT FOR STORM SEWERS, WHICH SHALL BE PAYMENT IN FULL FOR CLEANING, PATCHING, REMOVAL, AND DISPOSAL OF DEBRIS AND DIRT. DRAINAGE STRUCTURES AND STORM SEWERS CONSTRUCTED AS PART OF THE CONTRACTOR'S PROJECT SHALL BE MAINTAINED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. NO EXTRA PAYMENT WILL BE MADE FOR CLEANING STRUCTURES OR STORM SEWERS CONSTRUCTED AS PART OF THE CONTRACTOR'S PROJECT.

25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE UTILITY COMPANIES LOCATE THEIR FACILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL ALSO BE RESPONSIBLE FOR THE MAINTENANCE AND PRESERVATION OF THESE FACILITIES. THE ENGINEER DOES NOT WARRANT THE LOCATION OF ANY EXISTING UTILITIES SHOWN ON THE PLANS. THE CONTRACTOR SHALL CALL J.U.L.I.E. (1-800-892-0123) AND THE MUNICIPALITY FOR UTILITY LOCATIONS.

26. THE GENERAL CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO PROVIDE CABLE TV, PHONE, ELECTRIC, GAS AND IRRIGATION SERVICES. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING SITE LAYOUTS FOR THESE UTILITIES AND SHALL COORDINATE AND PROVIDE CONDUIT CROSSINGS AS REQUIRED. THIS COORDINATION SHALL BE CONSIDERED INCIDENTAL TO GENERAL CONTRACTOR AGREEMENT WITH THE OWNER. ANY CONFLICTS IN UTILITIES SHALL BE CORRECTED BY THE GENERAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

27. CONTRACTOR IS TO VERIFY ALL EXISTING STRUCTURES AND FACILITIES AT ALL PROPOSED UTILITY CONNECTION LOCATIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL AND STARTING WORK.

28. ANY FIELD TILES ENCOUNTERED SHALL BE INSPECTED BY THE ENGINEER. THE DRAIN TILE SHALL BE CONNECTED TO THE STORM SEWER SYSTEM AND A RECORD KEPT BY THE CONTRACTOR OF THE LOCATIONS AND TURNED OVER TO THE ENGINEER UPON COMPLETION OF THE PROJECT. THE COST OF THE CONTRACTOR'S WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT, AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

29. ALL FRAMES AND LIDS FOR STORM AND SANITARY SEWERS, VALVE VAULT COVERS, FIRE HYDRANTS, AND B-BOXES ARE TO BE ADJUSTED TO MEET FINISHED GRADE. THE CONTRACTOR'S ADJUSTMENT IS TO BE MADE BY THE SEWER AND WATER CONTRACTOR, AND THE COST IS TO BE CONSIDERED INCIDENTAL. THESE ADJUSTMENTS TO FINISHED GRADE WILL NOT ALLEVIATE THE CONTRACTOR FROM ANY ADDITIONAL ADJUSTMENTS AS REQUIRED BY THE MUNICIPALITY UPON FINAL INSPECTION OF THE PROJECT.

30. HYDRANTS SHALL NOT BE FLUSHED DIRECTLY ONTO THE ROAD SUBGRADES. WHENEVER POSSIBLE, HOSES SHALL BE USED TO DIRECT THE WATER INTO LOT AREAS OR THE STORM SEWER SYSTEM, IF AVAILABLE. DAMAGE TO THE ROAD SUBGRADE OR LOT GRADING DUE TO EXCESSIVE WATER SATURATION AND/OR EROSION FROM HYDRANT FLUSHING, OR FROM LEAKS IN THE WATER DISTRIBUTION SYSTEM, WILL BE REPAIRED BY THE CONTRACTOR FLUSHING OR USING THE HYDRANT AT THE CONTRACTOR'S OWN EXPENSE. LEAKS IN THE WATER DISTRIBUTION SYSTEM SHALL BE THE RESPONSIBILITY OF THE WATER MAIN CONTRACTOR AND SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

31. TRENCH BACKFILL WILL BE REQUIRED TO THE FULL DEPTH ABOVE SEWERS AND WATERMAIN WITHIN TWO (2) FEET HORIZONTAL OF PROPOSED OR EXISTING PAVEMENT.

32. IF SOFT, SPONGY, OR OTHER UNSUITABLE SOILS WITH UNCONFINED COMPRESSIVE STRENGTH LESS THAN 0.5 TSF ARE ENCOUNTERED AT THE BOTTOM OF THE TRENCH, ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH WELL-COMPACTED, CRUSHED LIMESTONE BEDDING MATERIAL. IF ROCK IS ENCOUNTERED, IT SHALL BE REMOVED TO AT LEAST SIX (6) INCHES BELOW THE BOTTOM OF THE PIPE TO ALLOW PROPER THICKNESS OF BEDDING. ANY UNDERCUTS OF TWO (2) FEET OR LESS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. DEPTHS GREATER THAN TWO (2) FEET SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PROCEEDING.

33. THE TRENCHES FOR PIPE INSTALLATION SHALL BE KEPT DRY AT ALL TIMES DURING PIPE PLACEMENT. APPROPRIATE FACILITIES TO MAINTAIN THE DRY TRENCH SHALL BE PROVIDED BY THE CONTRACTOR, AND THE COST OF SUCH SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR THE ITEM. PLANS FOR THE SITE DEWATERING, IF EMPLOYED, SHALL BE SUBMITTED TO AND APPROVED BY THE OWNER PRIOR TO IMPLEMENTATION. NO ADDITIONAL COMPENSATION SHALL BE MADE FOR DEWATERING DURING CONSTRUCTION UNLESS APPROVED IN WRITING BY THE OWNER.

34. AFTER THE STORM SEWER SYSTEM HAS BEEN CONSTRUCTED, THE CONTRACTOR SHALL PLACE PROPER INLET PROTECTION EROSION CONTROL AT LOCATIONS INDICATED BY THE ENGINEER. THE PURPOSE OF THE INLET PROTECTION WILL BE TO MINIMIZE THE AMOUNT OF SILTATION THAT NORMALLY WOULD ENTER THE STORM SEWER SYSTEM FROM ADJACENT AND/OR UPSTREAM DRAINAGE AREAS.

35. AT THE CLOSE OF EACH WORKING DAY AND AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS.

36. EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH IEPA REGULATIONS AND IDOT STANDARDS FOR SOIL EROSION AND SEDIMENTATION CONTROL AND SHALL BE MAINTAINED BY THE CONTRACTOR AND REMAIN IN PLACE UNTIL A SUITABLE GROWTH OF GRASS, ACCEPTABLE TO THE ENGINEER, HAS DEVELOPED.

37. THE CONTRACTOR SHALL CONFORM TO ALL EROSION CONTROL REQUIREMENTS AS SET FORTH BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY THROUGH THE NPDES PHASE II PERMIT PROGRAM REQUIREMENTS AND GOVERNING MUNICIPALITY. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL MEASURES AS INDICATED ON THE EROSION CONTROL DRAWINGS AND SPECIFICATIONS AS WELL AS THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED BY KIMLEY-HORN AND ASSOCIATES, INC. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THE PROVISIONS INDICATED IN THE SWPPP AT A MINIMUM, INCLUDING EROSION CONTROL MEASURES AND INSPECTION FREQUENCY, AS REQUIRED BY THE IEPA NPDES PHASE II PERMIT PROGRAM REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL SWPPP DOCUMENTATION CURRENT AND READILY AVAILABLE ON THE PROJECT SITE AT ALL TIMES FOR REVIEW BY THE OWNER, ENGINEER, AND REGULATORY AGENCIES. KIMLEY-HORN AND ASSOCIATES, INC. IS NOT RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS OR SUPPLIERS, WHICH CONTRIBUTE TO DEFICIENCIES IN THE SWPPP OR ANY VIOLATIONS RESULTING FROM INADEQUATE EROSION CONTROL PROTECTION AND/OR DOCUMENTATION.

38. THE PAVEMENT SHALL BE KEPT FREE OF MUD AND DEBRIS AT ALL TIMES. IT MAY BE NECESSARY TO KEEP A SWEEPER ON-SITE AT ALL TIMES.

39. ALL DISTURBED AREAS OF THE RIGHT-OF-WAY SHALL BE FULLY RESTORED TO PRE-CONSTRUCTION CONDITIONS WITH A MINIMUM OF SIX (6) INCHES OF TOPSOIL, SEEDING, AND MULCH AS PER IDOT STANDARDS.

40. ALL PROPOSED GRADES SHOWN ON PLANS ARE FINISHED SURFACE ELEVATIONS, UNLESS NOTED OTHERWISE.

41. ALL TESTING SHALL BE THE RESPONSIBILITY AND EXPENSE OF THE CONTRACTOR. IF REQUESTED BY THE MUNICIPALITY OR ENGINEER, COPIES OF ALL TEST RESULTS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW AND APPROVAL.

42. PROVIDE SMOOTH VERTICAL CURVES THROUGH HIGH AND LOW POINTS INDICATED BY SPOT ELEVATIONS. PROVIDE UNIFORM SLOPES BETWEEN NEW AND EXISTING GRADES. AVOID RIDGES AND DEPRESSIONS.

43. WHEN REQUIRED, THE CONTRACTOR SHALL NOTIFY THE OWNER WHEN RECORD DRAWINGS CAN BE PREPARED. RECORD DRAWINGS SHALL INDICATE THE FINAL LOCATION AND LAYOUT OF ALL IMPROVEMENTS, INCLUDING VERIFICATION OF ALL CONCRETE PADS, INVERT, RIM, AND SPOT GRADE ELEVATIONS, AND INCORPORATE ALL FIELD DESIGN CHANGES APPROVED BY THE OWNER.

44. BEFORE ACCEPTANCE, ALL WORK SHALL BE INSPECTED BY THE MUNICIPALITY, AS NECESSARY.

EARTHWORK NOTES

1. GENERAL

1.1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE SOIL AND GROUNDWATER CONDITIONS AT THE SITE.

1.2. ANY QUANTITIES IN THE BID PROPOSAL ARE INTENDED AS A GUIDE FOR THE CONTRACTOR'S USE IN DETERMINING THE SCOPE OF THE COMPLETED PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALL MATERIAL QUANTITIES AND BE KNOWLEDGEABLE OF ALL SITE CONDITIONS.

1.3. THE CONTRACTOR WILL NOTE THAT THE ELEVATIONS SHOWN ON THE CONSTRUCTION PLANS ARE FINISHED GRADE AND THAT PAVEMENT THICKNESS, TOPSOIL, ETC., MUST BE ACCOUNTED FOR.

1.4. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE DURING CONSTRUCTION AND PREVENT STORMWATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS. THE FAILURE TO PROVIDE PROPER DRAINAGE WILL NEGATE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF. FINAL GRADES SHALL BE PROTECTED AGAINST DAMAGE FROM EROSION, SEDIMENTATION, AND TRAFFIC.

1.5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES. THE INITIAL ESTABLISHMENT OF EROSION CONTROL PROCEDURES AND THE PLACEMENT OF SILT AND FILTER FENCING, ETC., TO PROTECT ADJACENT PROPERTY, WETLANDS, ETC., SHALL OCCUR BEFORE GRADING BEGINS.

1.6. PRIOR TO COMMENCEMENT OF GRADING ACTIVITIES, THE CONTRACTOR SHALL ERECT A CONSTRUCTION FENCE AROUND ANY TREE DESIGNATED TO BE PRESERVED. SAID FENCE SHALL BE PLACED IN A CIRCLE CENTERED AROUND THE TREE, THE DIAMETER OF WHICH SHALL BE SUCH THAT THE ENTIRE DRIP ZONE (EXTENT OF FURTHEST EXTENDING BRANCHES) SHALL BE WITHIN THE FENCE LIMITS. THE EXISTING GRADE WITHIN THE FENCED AREA SHALL NOT BE DISTURBED.

1.7. EXISTING SUBSURFACE CONDITIONS WERE OBTAINED FROM A GEOTECHNICAL PREPARED BY:

TESTING SERVICE CORPORATION
457 E. GUNDERSEN DRIVE
CAROL STREAM, IL 60188
TEL: (630) 784-4086

2. TOPSOIL EXCAVATION INCLUDES:

2.1. EXCAVATION OF TOPSOIL AND OTHER STRUCTURALLY UNSUITABLE MATERIALS WITHIN THOSE AREAS THAT WILL REQUIRE EARTH EXCAVATION OR COMPACTED EARTH FILL MATERIAL. EXISTING VEGETATION SHALL BE REMOVED PRIOR TO STRIPPING TOPSOIL OR FILLING AREAS.

2.2. PLACEMENT OF EXCAVATED MATERIAL IN OWNER-DESIGNATED AREAS FOR FUTURE USE WITHIN AREAS TO BE LANDSCAPED AND THOSE AREAS NOT REQUIRING STRUCTURAL FILL MATERIAL. PROVIDE NECESSARY EROSION CONTROL MEASURES FOR STOCKPILE.

2.3. TOPSOIL STOCKPILED FOR RESPREAD SHALL BE FREE OF CLAY AND SHALL NOT CONTAIN ANY OF THE TRANSITIONAL MATERIAL BETWEEN THE TOPSOIL AND CLAY. THE TRANSITIONAL MATERIAL SHALL BE USED IN NON-STRUCTURAL FILL AREAS OR DISPOSED OF OFF-SITE.

2.4. TOPSOIL RESPREAD SHALL INCLUDE HAULING AND SPREADING SIX (6) INCHES OF TOPSOIL DIRECTLY OVER AREAS TO BE LANDSCAPED WHERE SHOWN ON THE PLANS OR AS DIRECTED BY THE OWNER.

2.5. MODERATE COMPACTION IS REQUIRED IN NON-STRUCTURAL FILL AREAS.

3. EARTH EXCAVATION INCLUDES:

3.1. EXCAVATION OF SUBSURFACE MATERIALS WHICH ARE SUITABLE FOR USE AS STRUCTURAL FILL. THE EXCAVATION SHALL BE TO WITHIN A TOLERANCE OF 0.1 FEET OF THE PLAN SUBGRADE ELEVATIONS WHILE MAINTAINING PROPER DRAINAGE. THE TOLERANCE WITHIN PAVEMENT AREAS SHALL BE SUCH THAT THE EARTH MATERIALS SHALL "BALANCE" DURING THE FINE GRADING OPERATION.

3.2. PLACEMENT OF SUITABLE MATERIALS SHALL BE WITHIN THOSE AREAS REQUIRING STRUCTURAL FILL IN ORDER TO ACHIEVE THE PLAN SUBGRADE ELEVATIONS TO WITHIN A TOLERANCE OF 0.1 FEET. THE FILL MATERIALS SHALL BE PLACED IN LOOSE LIFTS THAT SHALL NOT EXCEED EIGHT (8) INCHES IN THICKNESS, AND THE WATER CONTENT SHALL BE ADJUSTED IN ORDER TO ACHIEVE REQUIRED COMPACTION.

3.3. STRUCTURAL FILL MATERIAL MAY BE PLACED WITHIN THOSE PORTIONS OF THE SITE NOT REQUIRING STRUCTURAL FILL, WITHIN SIX (6) INCHES OF THE PLAN FINISHED GRADE ELEVATION. IN AREAS REQUIRING STRUCTURAL FILL, HOWEVER, THIS MATERIAL SHALL NOT BE PLACED OVER TOPSOIL OR OTHER UNSUITABLE MATERIALS UNLESS SPECIFICALLY DIRECTED BY A SOILS ENGINEER WITH THE CONCURRENCE OF THE OWNER.

3.4. COMPACTION OF SUITABLE MATERIALS SHALL BE TO AT LEAST 93% OF THE MODIFIED PROCTOR DRY DENSITY WITHIN PROPOSED PAVEMENT AREAS, SIDEWALK, ETC. COMPACTION SHALL BE AT LEAST 95% OF THE MODIFIED PROCTOR WITHIN PROPOSED BUILDING PAD AREAS.

4. UNSUITABLE MATERIAL: UNSUITABLE MATERIALS SHALL BE CONSIDERED MATERIAL THAT IS NOT SUITABLE FOR THE SUPPORT OF PAVEMENT AND BUILDING CONSTRUCTION, AND IS ENCOUNTERED BELOW NORMAL TOPSOIL DEPTHS AND THE PROPOSED SUBGRADE ELEVATION. THE DECISION TO REMOVE SAID MATERIAL AND TO WHAT EXTENT SHALL BE MADE BY THE ENGINEER WITH THE CONCURRENCE OF THE OWNER.

5. MISCELLANEOUS. THE CONTRACTOR SHALL:

5.1. SPREAD AND COMPACT UNIFORMLY TO THE DEGREE SPECIFIED ALL EXCESS TRENCH SPOIL AFTER COMPLETION OF THE UNDERGROUND IMPROVEMENTS.

5.2. SCARIFY, DISC, AERATE, AND COMPACT, TO THE DEGREE SPECIFIED, THE UPPER TWELVE (12) INCHES OF THE SUITABLE SUBGRADE MATERIAL IN ALL AREAS THAT MAY BE SOFT DUE TO EXCESS MOISTURE CONTENT. THIS APPLIES TO CUT AREAS AS WELL AS FILL AREAS.

5.3. ADD WATER TO DRY MATERIAL IN ORDER TO ADJUST THE MOISTURE CONTENT FOR THE PURPOSE OF ACHIEVING THE SPECIFIED COMPACTION.

5.4. BACKFILL THE CURB AND GUTTER AFTER ITS CONSTRUCTION AND PRIOR TO THE PLACEMENT OF THE BASE COURSE MATERIAL.

6. TESTING AND FINAL ACCEPTANCE

6.1. THE CONTRACTOR SHALL PROVIDE AS A MINIMUM A FULLY LOADED SIX-WHEEL TANDEM AXLE TRUCK FOR PROOF ROLLING THE PAVEMENT SUBGRADE PRIOR TO THE PLACEMENT OF THE CURB AND GUTTER AND THE BASE MATERIAL. THIS SHALL BE WITNESSED BY THE TESTING ENGINEER AND THE OWNER. (SEE PAVING SPECIFICATION.)

6.2. ANY UNSUITABLE AREA ENCOUNTERED AS A RESULT OF PROOF ROLLING SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL OR OTHERWISE CORRECTED AND APPROVED BY THE ENGINEER.

PAVING NOTES

1. GENERAL

1.1. PAVING WORK INCLUDES FINAL SUBGRADE SHAPING, PREPARATION, AND COMPACTION; PLACEMENT OF SUBBASE OR BASE COURSE MATERIALS; BITUMINOUS BINDER AND/OR SURFACE COURSES; FORMING, FINISHING, AND CURING CONCRETE PAVEMENT, CURBS, AND WALKS; AND FINAL CLEAN-UP AND ALL RELATED WORK.

1.2. COMPACTION REQUIREMENTS [REFERENCE ASTM D-1557 (MODIFIED PROCTOR)] FOR SUBGRADE, SUBBASE, AGGREGATE BASE COURSE, AND BITUMINOUS COURSES SHALL MEET ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT) HIGHWAY STANDARDS.

1.3. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE PROPER BARRICADING WARNING DEVICES, AND THE SAFE MANAGEMENT OF TRAFFIC WITHIN THE AREA OF CONSTRUCTION. ALL SUCH DEVICES AND THEIR INSTALLATION SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, AND IN ACCORDANCE WITH THE MUNICIPALITY CODE.

2. SUBGRADE PREPARATION

2.1. EARTHWORK FOR PROPOSED PAVEMENT SUBGRADE SHALL BE FINISHED TO WITHIN 0.1 FOOT, PLUS OR MINUS, OF PLAN ELEVATION. THE CONTRACTOR SHALL CONFIRM THAT THE SUBGRADE HAS BEEN PROPERLY PREPARED AND THAT THE FINISHED TOP SUBGRADE ELEVATION HAS BEEN GRADED WITHIN TOLERANCES ALLOWED IN THESE SPECIFICATIONS, UNLESS THE CONTRACTOR ADVISES THE ENGINEER IN WRITING PRIOR TO FINE GRADING FOR BASE COURSE CONSTRUCTION. IT IS UNDERSTOOD THAT THE CONTRACTOR HAS APPROVED AND ACCEPTS THE RESPONSIBILITY FOR THE SUBGRADE.

2.2. PRIOR TO THE PLACEMENT OF THE BASE COURSE, THE SUBGRADE MUST BE PROOF-ROLLED AND INSPECTED FOR UNSUITABLE MATERIALS AND/OR EXCESSIVE MOVEMENT. IF UNSUITABLE SUBGRADE IS ENCOUNTERED, IT SHALL BE CORRECTED. THIS MAY INCLUDE ONE OR MORE OF THE FOLLOWING METHODS:

2.2.1. SCARIFY, DISC, AND AERATE.

2.2.2. REMOVE AND REPLACE WITH STRUCTURAL CLAY FILL.

2.2.3. REMOVE AND REPLACE WITH GRANULAR MATERIAL.

2.2.4. USE OF GEOTEXTILE FABRIC.

MAXIMUM DEFLECTION ALLOWED IN ISOLATED AREAS MAY BE ONE-QUARTER (1/4) INCH TO ONE-HALF (1/2) INCH IF NO DEFLECTION OCCURS OVER THE MAJORITY OF THE AREA.

2.3. PRIOR TO THE CONSTRUCTION OF THE CURB AND GUTTER AND THE PLACEMENT OF THE BASE MATERIAL, THE PAVEMENT AREA SHALL BE FINE-GRADED TO WITHIN 0.04 FEET (1/2 INCH) OF FINAL SUBGRADE ELEVATION, TO A POINT TWO (2) FEET BEYOND THE BACK OF THE CURB, SO AS TO ENSURE THE PROPER THICKNESS OF PAVEMENT COURSES. NO CLAIMS FOR EXCESS QUANTITY OF BASE MATERIALS DUE TO IMPROPER SUBGRADE PREPARATION WILL BE HONORED.

2.4. PRIOR TO PLACEMENT OF THE BASE COURSE, THE SUBGRADE SHALL BE APPROVED BY THE TESTING ENGINEER.

3. CONCRETE WORK

3.1. ALL EXTERIOR CONCRETE SHALL BE PORTLAND CEMENT CONCRETE WITH AIR ENTRAINMENT OF NOT LESS THAN FIVE (5%) OR MORE THAN EIGHT (8%) PERCENT. CONCRETE SHALL BE A MINIMUM OF SIX (6) BAG MIX AND SHALL DEVELOP A MINIMUM OF 4,000 PSI COMPRESSIVE STRENGTH AT TWENTY-EIGHT (28) DAYS. ALL CONCRETE SHALL BE BROOM-FINISHED PERPENDICULAR TO THE DIRECTION OF TRAVEL.

3.2. CONCRETE CURB AND/OR COMBINATION CURB AND GUTTER SHALL BE OF THE TYPE SHOWN ON THE PLANS. THE CONTRACTOR IS CAUTIONED TO REFER TO THE CONSTRUCTION STANDARDS AND THE PAVEMENT CROSS SECTION TO DETERMINE THE GUTTER FLAG THICKNESS AND THE AGGREGATE BASE COURSE THICKNESS BENEATH THE CURB AND GUTTER. PRE-MOLDED FIBER EXPANSION JOINTS, WITH TWO 3/4-INCH BY 18-INCH EPOXY-COATED STEEL DOWEL BARS, SHALL BE GREASED AND FITTED WITH METAL EXPANSION TUBES

3.3. CURBS SHALL BE DEPRESSED AND MEET THE SLOPE REQUIREMENTS OF THE ILLINOIS ACCESSIBILITY CODE AT LOCATIONS WHERE PUBLIC WALKS INTERSECT CURB LINES AND OTHER LOCATIONS, AS DIRECTED, FOR THE PURPOSE OF PROVIDING ACCESSIBILITY.

3.4. THE CURBS SHALL BE BACKFILLED AFTER THEIR CONSTRUCTION AND PRIOR TO THE PLACEMENT OF THE BASE COURSE.

3.5. CONCRETE SIDEWALK SHALL BE IN ACCORDANCE WITH THE ABOVE AND THE PLANS. PROVIDE SCORED JOINTS AT 5-FOOT INTERVALS AND 1/2-INCH PRE-MOLDED FIBER EXPANSION JOINTS AT 20-FOOT INTERVALS AND ADJACENT TO CONCRETE CURBS, DRIVEWAYS, FOUNDATIONS, AND OTHER STRUCTURES.

3.6. CONCRETE CURING AND PROTECTION SHALL BE PER IDOT STANDARDS. TWO (2) COATS OF IDOT APPROVED CURING AGENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES.

3.7. THE COST OF AGGREGATE BASE OR SUBBASE UNDER CONCRETE WORK SHALL BE INCLUDED IN THE COST OF THE RESPECTIVE CONCRETE ITEM.

4. FLEXIBLE PAVEMENT

4.1. THE PAVEMENT MATERIALS FOR BITUMINOUS STREETS, PARKING LOTS, AND DRIVE AISLES SHALL BE AS DETAILED ON THE PLANS. UNLESS OTHERWISE SHOWN ON THE PLANS, THE FLEXIBLE PAVEMENTS SHALL CONSIST OF AGGREGATE BASE COURSE, TYPE B, HMA BINDER COURSE, IL-19, N50; AND HMA SURFACE COURSE, MIX N50, OF THE THICKNESS AND MATERIALS SPECIFIED ON THE PLANS. THICKNESSES SPECIFIED SHALL BE CONSIDERED TO BE THE MINIMUM COMPACTED THICKNESS.

4.2. ALL TRAFFIC SHALL BE KEPT OFF THE COMPLETED AGGREGATE BASE UNTIL THE BINDER COURSE IS LAID. THE AGGREGATE BASE SHALL BE UNIFORMLY PRIME COATED AT A RATE OF 0.4 TO 0.5 GALLONS PER SQUARE YARD PRIOR TO PLACING THE BINDER COURSE. PRIME COAT MATERIALS SHALL BE IDOT APPROVED.

4.3. PRIOR TO PLACEMENT OF THE SURFACE COURSE, THE BINDER COURSE SHALL BE CLEANED AND TACK-COATED IF DUSTY OR DIRTY. ALL DAMAGED AREAS IN THE BINDER, BASE, OR CURB SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER PRIOR TO LAYING THE SURFACE COURSE. THE CONTRACTOR SHALL PROVIDE WHATEVER EQUIPMENT AND STAFF NECESSARY, INCLUDING THE USE OF POWER BROOMS IF REQUIRED BY THE OWNER, TO PREPARE THE PAVEMENT FOR APPLICATION OF THE SURFACE COURSE. THE TACK COAT SHALL BE UNIFORMLY APPLIED TO THE BINDER COURSE AT A RATE OF 0.05 TO 0.10 GALLONS PER SQUARE YARD. TACK COAT SHALL BE AS PER IDOT STANDARDS.

4.4. SEAMS IN BAM, BINDER, AND SURFACE COURSE SHALL BE STAGGERED A MINIMUM OF 6 INCHES.

5. TESTING AND FINAL ACCEPTANCE.

5.1. THE CONTRACTOR SHALL FOLLOW THE QUALITY CONTROL TESTING PROGRAM FOR CONCRETE AND PAVEMENT MATERIALS ESTABLISHED BY THE MATERIALS/TESTING ENGINEER.

5.2. PRIOR TO PLACEMENT OF THE BITUMINOUS CONCRETE SURFACE COURSE, THE CONTRACTOR, WHEN REQUIRED BY THE MUNICIPALITY, SHALL OBTAIN SPECIMENS OF THE BINDER COURSE WITH A CORE DRILL WHERE DIRECTED, FOR THE PURPOSE OF THICKNESS VERIFICATION.

5.3. WHEN REQUIRED BY THE MUNICIPALITY, THE CONTRACTOR SHALL OBTAIN SPECIMENS OF THE FULL DEPTH BITUMINOUS CONCRETE PAVEMENT STRUCTURE WITH A CORE DRILL WHERE DIRECTED IN ORDER TO CONFIRM THE PLAN THICKNESS. DEFICIENCIES IN THICKNESS SHALL BE ADJUSTED FOR BY THE METHOD REQUIRED BY IDOT STANDARDS.

5.4. FINAL ACCEPTANCE OF THE TOTAL PAVEMENT INSTALLATION SHALL BE SUBJECT TO THE TESTING AND CHECKING REQUIREMENTS CITED ABOVE.

6. ALL MATERIAL AND CONSTRUCTION SHALL CONFORM TO THE MUNICIPALITY CODE. WHEN CONFLICTS ARISE BETWEEN MUNICIPAL CODE, GENERAL NOTES AND SPECIFICATIONS, THE MORE STRINGENT SHALL TAKE PRECEDENCE.

SIGNAGE AND PAVEMENT MARKING NOTES

1. ALL SIGNING AND PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT) STANDARDS.
2. SIGNS: SIGNS SHALL BE CONSTRUCTED OF 0.080-INCH THICK FLAT ALUMINUM PANELS WITH REFLECTORIZED LEGEND ON THE FACE. LEGEND SHALL BE IN ACCORDANCE WITH THE MUTCD.
3. POSTS: SIGN POSTS SHALL BE A HEAVY-DUTY STEEL "U" SHAPED CHANNEL WEIGHING 3.0 POUNDS/FOOT, SUCH AS A TYPE B METAL POST, AS PER THE IDOT STANDARDS (OR 2-INCH PERFORATED STEEL TUBE).
4. SIGNS AND POSTS SHALL BE INSTALLED IN ACCORDANCE WITH IDOT STANDARDS.
5. PAVEMENT MARKINGS: ALL PAVEMENT MARKINGS IN THE PUBLIC RIGHT-OF-WAY, SUCH AS STOP LINES, CENTERLINES, CROSSWALKS, AND DIRECTIONAL ARROWS, SHALL BE REFLECTORIZED THERMOPLASTIC ON ASPHALT AND MODIFIED URETHANE ON CONCRETE OR AS APPROVED BY IDOT.
6. PAVEMENT MARKINGS ON BIKE PATHS, PARKING LOT STALLS, AND SIMILAR "LOW-WEAR" APPLICATIONS, SHALL BE PAINT IN ACCORDANCE WITH IDOT STANDARDS.
7. COLOR, WIDTH, STYLE, AND SIZE OF ALL MARKINGS SHALL BE IN ACCORDANCE WITH THE MUTCD AND LOCAL CODE. STANDARD PARKING SPACES SHALL BE PAINTED WHITE OR YELLOW PER LOCAL CODE.
8. THERMOPLASTIC MARKINGS SHALL BE INSTALLED WHEN THE PAVEMENT TEMPERATURE IS 55 DEGREES FAHRENHEIT AND RISING. PAINT MARKINGS MAY BE INSTALLED WHEN THE AIR TEMPERATURE IS 50 DEGREES FAHRENHEIT AND RISING.MODIFIED URETHANE MARKINGS SHALL BE INSTALLED DURING CONDITIONS OF DRY WEATHER AND WHEN THE PAVEMENT TEMPERATURE IS 40 DEGREES FARENHEIT AND RISING.

SANITARY SEWER NOTES

1. SANITARY SEWER PIPE: ALL SANITARY SEWER PIPE MATERIAL, SIZE AND TYPE SHALL BE INSTALLED AS INDICATED ON THE UTILITY PLAN. UNLESS OTHERWISE NOTED ON THE PLANS, ALL SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE PLASTIC PIPE (PVC SDR-26), CONFORMING TO ASTM D3034 AND D2241 WITH ELASTOMERIC GASKET JOINTS CONFORMING TO ASTM D3139 AND D3212. ANY CHANGES TO THE PIPE MATERIAL, SIZE AND TYPE MUST BE APPROVED BY THE OWNER, ENGINEER AND MUNICIPALITY PRIOR TO ORDERING MATERIALS OR INSTALLING THE PIPE. ALL SANITARY SEWER PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING:

PIPE SIZE	CODE	PIPE MATERIAL
4" - 12"	PVC	POLYVINYL CHLORIDE PLASTIC PIPE SDR-26 (ASTM D3034 AND D2241)
4"-48"	DIP	DUCTILE IRON PIPE, CLASS 52 (ANSI 21.51 AND AWWA C151)

2. BAND-SEAL OR SIMILAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED WHEN CONNECTING SEWER PIPES OF DISSIMILAR MATERIALS. ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE ¼" TO 1" IN SIZE WITH MINIMUM BEDDING THICKNESS EQUAL TO ¼ THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NO LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. AS A MINIMUM, THE MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" OF THE STATE OF ILLINOIS OR ASTM C-33. THE GRADATION SHALL CONFORM TO GRADATION CA-11 OF THE ILLINOIS STANDARD SPECIFICATIONS AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.
3. ALL UNSUITABLE MATERIALS SHALL BE REMOVED BELOW THE PROPOSED SANITARY SEWER AND REPLACED WITH COMPACTED CRUSHED GRAVEL OR STONE PER IDOT STANDARDS AND AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
4. ALL TRENCHES BENEATH PROPOSED OR EXISTING UTILITIES, PAVEMENTS, ROADWAYS, SIDEWALKS, AND FOR A DISTANCE OF TWO (2) FEET ON EITHER SIDE OF SAME, AND/OR WHERE SHOWN ON THE PLANS, SHALL BE BACKFILLED WITH SELECT GRANULAR BACKFILL PER IDOT STANDARDS AND THOROUGHLY MECHANICALLY COMPACTED IN 6-INCH THICK (LOOSE MEASUREMENT) LAYERS. JETTING WITH WATER IS NOT PERMITTED.
5. ALL SANITARY SEWERS ARE TO BE CONSTRUCTED USING A LASER INSTRUMENT TO MAINTAIN LINE AND GRADE.
6. CONNECTIONS TO EXISTING SANITARY SEWER SYSTEM SHALL NOT BE DONE UNTIL AUTHORIZED BY THE MUNICIPALITY.
7. WATERMAINS SHALL BE SEPARATED FROM SANITARY SEWERS AND STORM SEWERS IN ACCORDANCE WITH ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA) REQUIREMENTS, AS SPECIFIED IN THE STANDARDS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS.
8. NO WATER LINE SHALL BE PLACED IN THE SAME TRENCH AS A SEWER LINE, EXCEPT UNDER SPECIAL CIRCUMSTANCES AND THEN ONLY UNDER THE FOLLOWING RULES:

   A. IF NECESSARY PERMISSION SHALL BE OBTAINED FROM THE MUNICIPALITY IN WRITING PRIOR TO BEGINNING CONSTRUCTION.

   B. THE BOTTOM OF A WATER LINE SHALL BE INSTALLED ON A SHELF A MINIMUM OF 18 INCHES ABOVE THE TOP OF THE SEWER AND 18 INCHES HORIZONTALLY AWAY FROM THE EDGE OF THE SEWER.

9. 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. A WATERTIGHT BOOT, CONFORMING TO ASTM C-923, SHALL BE USED AT THE PIPE-STRUCTURE CONNECTION.
10. ALL PIPE CONNECTION OPENINGS SHALL BE PRECAST WITH RESILIENT RUBBER WATER-TIGHT SLEEVES. THE BOTTOM OF THE MANHOLE SHALL HAVE A CONCRETE BENCH POURED TO FACILITATE SMOOTH FLOWS.
11. FRAMES AND LIDS: SEE DETAILS FOR ALL SANITARY SEWER MANHOLE FRAMES AND LIDS. THE LIDS SHALL HAVE RECESSED (CONCEALED) PICK HOLE AND BE SELF-SEALING WITH AN "O" RING GASKET. THE LIDS SHALL HAVE THE WORD "SANITARY" EMBOSSED ON THE SURFACE. THE JOINTS BETWEEN THE FRAME AND CONCRETE SECTION SHALL BE SEALED WITH A BUTYL ROPE.
12. A MAXIMUM OF TWELVE (12) INCHES OF CONCRETE-ADJUSTING RINGS SHALL BE USED TO ADJUST FRAME ELEVATIONS. RINGS SHALL BE SEALED TOGETHER WITH BUTYL ROPE.
13. CLEANING: ALL MANHOLES AND PIPES SHALL BE THOROUGHLY CLEANED OF DIRT AND DEBRIS, AND ALL VISIBLE LEAKAGE ELIMINATED, BEFORE FINAL INSPECTION AND ACCEPTANCE.
14. TESTING: DEFLECTION, AIR, AND LEAKAGE TESTING WILL BE REQUIRED. THE PROCEDURE AND ALLOWABLE TESTING LIMITS SHALL BE IN ACCORDANCE WITH THE STANDARDS FOR SEWER AND WATER MAIN CONSTRUCTION IN ILLINOIS.
15. TESTING THE ALIGNMENT/STRAIGHTNESS SHALL BE IN ACCORDANCE WITH THE MUNICIPALITY CODE.
16. TELEVISING: IF REQUIRED BY THE MUNICIPALITY, ALL SANITARY SEWERS SHALL BE TELEVISED, AND A COPY OF THE TAPE AND A WRITTEN REPORT SHALL BE SUBMITTED AND REVIEWED BY THE MUNICIPALITY BEFORE FINAL ACCEPTANCE. THE REPORT SHALL INCLUDE STUB LOCATION AS WELL AS A DESCRIPTION OF ALL DEFECTS, WATER LEVEL, LEAKS, AND LENGTHS. IDENTIFY MANHOLE TO MANHOLE BOTH VERBALLY AND ON-SCREEN USING MANHOLE NUMBERS FROM APPROVED PLANS. ORDER OF WRITTEN REPORT SHALL BE THE SAME AS THE VIDEOTAPES.
17. TEST RESULTS: IF THE SANITARY SEWER INSTALLATION FAILS TO MEET THE TEST REQUIREMENTS SPECIFIED, THE CONTRACTOR SHALL DETERMINE THE CAUSE OR CAUSES OF THE DEFECT AND REPAIR, OR REPLACE ALL MATERIALS AND WORKMANSHIP, AS MAY BE NECESSARY TO COMPLY WITH THE TEST REQUIREMENTS.
18. CERTIFICATION: CONTRACTOR SHALL SUBMIT CERTIFIED COPIES OF ALL REPORTS OF TESTS CONDUCTED BY AN INDEPENDENT LABORATORY BEFORE INSTALLATION OF PVC PLASTIC PIPE. TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH STANDARD METHOD OF TEST FOR "EXTERNAL LOADING PROPERTIES OF PLASTIC PIPE BY PARALLEL PLATE LOADING." ASTM STANDARDS D-2241, AS APPROPRIATE FOR THE PIPE, TO BE USED. TESTS SHALL ALSO BE CONDUCTED TO DEMONSTRATE JOINT PERFORMANCE AT FIVE (5) PERCENT MAXIMUM DIAMETRIC DEFLECTION OF THE SPIGOT.
19. CONTRACTOR SHALL VERIFY THAT THE TESTING METHODS DESIGNATED HEREIN ARE ACCEPTABLE TO THE LOCAL AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT.

STORM SEWER NOTES

1. STORM SEWER PIPE: ALL STORM SEWER PIPE MATERIAL, SIZE AND TYPE SHALL BE INSTALLED AS INDICATED ON THE UTILITY PLAN. UNLESS OTHERWISE NOTED ON THE PLANS, ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE, IN ACCORDANCE WITH IDOT STANDARD SPECIFICATIONS FOR DETERMINING PIPE CLASS AND CONFORMING TO ASTM C76. ANY CHANGES TO THE PIPE MATERIAL, SIZE AND TYPE MUST BE APPROVED BY THE OWNER, ENGINEER AND MUNICIPALITY PRIOR TO ORDERING MATERIALS OR INSTALLING THE PIPE. ALL STORM SEWER PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING:

PIPE SIZE	CODE	PIPE MATERIAL
12"-60"	RCP	REINFORCED CONCRETE PIPE (ASTM C76); SEE IDOT SPECS FOR PIPE CLASS
3"-12"	PVC	POLYVINYL CHLORIDE PLASTIC PIPE SDR-26 (ASTM D3034 AND D2241)
3"-48"	HDPE	HIGH DENSITY POLYETHYLENE PIPE
3"-48"	DIP	DUCTILE IRON PIPE, CLASS 52 (ANSI 21.51 AND AWWA C151)

2. BAND-SEAL OR SIMILAR COUPLING SHALL BE USED WHEN JOINING SEWER PIPES OF DISSIMILAR MATERIALS.
3. ALL FOOTING DRAIN DISCHARGE PIPES AND DOWN SPOUTS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.
4. CONSTRUCTION: ALL STORM SEWERS ARE TO BE CONSTRUCTED USING A LASER INSTRUMENT TO MAINTAIN LINE AND GRADE.
5. COVER: THE CONTRACTOR SHALL MAINTAIN AT LEAST TWO (2) FEET OF COVER OVER THE TOP OF SHALLOW PIPES AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL MOUND OVER ANY PIPES THAT HAVE LESS THAN TWO (2) FEET OF COVER DURING CONSTRUCTION UNTIL THE AREA IS FINAL GRADED OR PAVED.
6. STRUCTURES: MANHOLE, CATCH BASIN, AND INLET BOTTOMS SHALL BE PRECAST CONCRETE SECTIONAL UNITS OR MONOLITHIC CONCRETE. MANHOLES AND CATCH BASINS SHALL BE A MINIMUM OF FOUR (4) FEET IN DIAMETER UNLESS OTHERWISE SPECIFIED ON THE PLANS. STRUCTURE JOINTS SHALL BE SEALED WITH "O" RING OR BUTYL ROPE. A MAXIMUM OF TWELVE (12) INCHES OF ADJUSTING RINGS SHALL BE USED.
7. A CONCRETE BENCH TO DIRECT FLOWS SHALL BE CONSTRUCTED IN THE BOTTOM OF ALL INLETS AND MANHOLES.
8. THE FRAME, GATE, AND/OR CLOSED LID SHALL BE CAST IRON OF THE STYLE SHOWN ON THE PLANS.
9. CLEANING: THE STORM SEWER SYSTEM SHALL BE THOROUGHLY CLEANED PRIOR TO FINAL INSPECTION AND TESTING.
10. THE STORM SEWER SHALL BE TELEVISED IF REQUIRED BY THE MUNICIPALITY.
11. MANHOLES, CATCH BASINS, INLETS, FRAMES, GRATES, AND OTHER STRUCTURES SHALL BE CONSTRUCTED OF THE TYPE, STYLE, AND SIZE AS SET FORTH WITH THE ORDINANCES AND STANDARDS OF THE MUNICIPALITY.
12. ALL PVC PIPES CONNECTED TO REINFORCED CONCRETE PIPE SHALL BE CORED AND BOOTED PER THE MUNICIPALITY REQUIREMENTS.

WATERMAIN NOTES

1. WATERMAIN PIPE: ALL WATERMAIN PIPE MATERIAL, SIZE AND TYPE SHALL BE INSTALLED AS INDICATED ON THE UTILITY PLAN. UNLESS OTHERWISE NOTED ON THE PLANS, ALL WATERMAIN PIPE SHALL BE CONSTRUCTED OF BITUMINOUS-COATED CEMENT-LINED DUCTILE IRON PIPE, CLASS 52, CONFORMING TO ANSI A21.51 (AWWA C151). CEMENT MORTAR LINING SHALL CONFORM TO ANSI A21.4 (AWWA C104). THE JOINTS SHALL BE PUSH-ON COMPRESSION GASKET JOINTS CONFORMING TO ANSI A21.11 (AWWA C111). ANY CHANGES TO THE PIPE MATERIAL, SIZE AND TYPE MUST BE APPROVED BY THE OWNER, ENGINEER AND MUNICIPALITY PRIOR TO ORDERING MATERIALS OR INSTALLING THE PIPE. ALL WATERMAIN PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING:

PIPE SIZE	CODE	PIPE MATERIAL
3"-48"	DIP	DUCTILE IRON PIPE, CLASS 52 (ANSI 21.51 AND AWWA C151)
< 3"		TYPE "K" COPPER PIPE

2. FITTINGS: ALL FITTINGS SHALL BE OF DUCTILE IRON WITH CEMENT MORTAR LINING AND MECHANICAL JOINTS CONFORMING TO ANSI AS21.10 (AWWA C110).
3. VALVES: GATE VALVES SHALL BE USED ON ALL WATERMAINS. ALL VALVES SHALL TURN COUNTER-CLOCKWISE TO OPEN. VALVES SHALL BE IRON BODY RESILIENT WEDGE GATE VALVES WITH BRONZE-MOUNTED SEATS AND NON-RISING STEMS CONFORMING TO AWWA C-509 OR C-515. THE VALVES SHALL HAVE MECHANICAL JOINTS.
4. THE MECHANICAL JOINTS AND ALL FASTENERS ON THE VALVE BODY SHALL HAVE STAINLESS STEEL NUTS AND BOLTS.
5. VALVE VAULTS: VALVE VAULTS SHALL BE PRECAST CONCRETE STRUCTURES FOUR (4) FEET IN DIAMETER FOR WATERMAIN 8" OR LESS IN DIAMETER AND FIVE (5) FEET IN DIAMETER FOR WATERMAIN 10"-12" IN DIAMETER, UNLESS OTHERWISE SPECIFIED IN LOCAL AUTHORITY HAVING JURISDICTION STANDARDS. THE FRAME AND LID SHALL BE ACCORDING TO THE DETAIL ON THE PLANS, WITH "WATER" EMBOSSED ON THE LID.
6. FIRE HYDRANTS: SEE PLANS FOR APPROVED FIRE HYDRANT DETAIL. FIRE HYDRANTS SHALL BE INSTALLED WITH AN AUXILIARY VALVE AND CAST IRON VALVE BOX. FIRE HYDRANTS SHALL HAVE AUXILIARY VALVES WITH A HYDRANT BARREL TO VALVE BOX RESTRAINING DEVICE. THE PUMPER CONNECTION SHALL FACE THE ROADWAY.
7. PROVIDE AND INSTALL FOUR MEGALUG JOINT RESTRAINTS AT EACH JOINT FROM THE MAINLINE TEE TO THE AUXILIARY VALVE AND BETWEEN THE AUXILIARY VALVE AND THE HYDRANT BARREL.
8. THE BREAK FLANGE AND ALL BELOW-GRADE FITTING SHALL HAVE STAINLESS STEEL NUTS AND BOLTS.
9. CORPORATION STOPS: CORPORATION STOPS SHALL BE BRONZE BODY KEY STOPS CONFORMING TO AWWA C-800 AND SHALL INCLUDE "J" BEND, TAILPIECE, AND COMPRESSION FITTINGS. SIZE AND LOCATION AS SHOWN ON THE PLANS.
10. SERVICE BOX: PROVIDE CURB VALVE AND CURB BOX, AS INDICATED ON THE PLANS. BOX SHALL BE EXTENSION TYPE WITH FOOT PIECE AND STATIONARY RODS FOR SIX (6) FEET OF BURY.
11. MAXIMUM DEFLECTION AT PIPE JOINTS SHALL BE IN ACCORDANCE WITH PIPE MANUFACTURER'S CURRENT RECOMMENDATIONS AND AWWA SPECIFICATIONS.
12. BEDDING: ALL WATERMAINS SHALL BE BEDDED ON FIRM GROUND, WITH BELLHOLES EXCAVATED SO THAT THE PIPE HAS AN EVEN BEDDING FOR ITS ENTIRE LENGTH.
13. GRANULAR BEDDING MATERIAL OR GRANULAR BACKFILL MATERIAL SHALL BE CAREFULLY PLACED TO TWELVE (12) INCHES OVER THE TOP OF THE PIPE BEFORE FINAL BACKFILLING AND COMPACTION.
14. A MINIMUM DEPTH OF COVER OF 5-FEET, 6-INCHES SHALL BE MAINTAINED OVER THE WATER LINES. THE MAXIMUM COVER SHALL BE EIGHT (8) FEET, EXCEPT AT SPECIAL CROSSINGS AND ONLY AS DESIGNATED ON THE PLANS.
15. "MEGA-LUG" RETAINER GLANDS AND THRUST BLOCKING SHALL BE INSTALLED ON WATERMAINS AT ALL BENDS, FITTINGS, TEES, ELBOWS, ETC. "MEGA-LUG" RESTRAINED JOINTS ARE REQUIRED ON ALL VALVES AND ALL FITTINGS. THE COST FOR THIS WORK SHALL BE INCIDENTAL TO THE UNIT PRICE FOR THE PIPE INSTALLED.
16. ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA) AND MUNICIPALITY WATERMAIN PROTECTION:

16.1. HORIZONTAL SEPARATION

16.1.1. WATERMAINS SHALL BE LAID AT LEAST TEN (10) FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED DRAIN, STORM SEWER, SANITARY SEWER, OR SEWER SERVICES CONNECTION.

16.1.2. WATERMAINS MAY BE LAID CLOSER THAN TEN (10) FEET TO A SEWER LINE WHEN:

16.1.2.1. LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF TEN (10) FEET;

16.1.2.2. THE WATERMAIN INVERT IS AT LEAST EIGHTEEN (18) INCHES ABOVE THE CROWN OF THE SEWER;

16.1.2.3. THE WATERMAIN IS EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON AN UNDISTURBED EARTH SHELF LOCATED TO ONE SIDE OF THE SEWER.

16.1.3. WHEN IT IS IMPOSSIBLE TO MEET (1) OR (2) ABOVE, BOTH THE WATERMAIN AND DRAIN OR SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE, PRESTRESSED CONCRETE PIPE, OR PVC PIPE EQUIVALENT TO WATERMAIN STANDARDS OF CONSTRUCTION AND IN CONFORMANCE WITH THE ILLINOIS STANDARDS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS. THE DRAIN OR SEWER SHALL BE PRESSURE-TESTED TO THE MAXIMUM EXPECTED SURCHARGE HEAD BEFORE BACKFILLING.

16.2. VERTICAL SEPARATION

16.2.1. A WATERMAIN SHALL BE LAID SO THAT ITS INVERT IS EIGHTEEN (18) INCHES ABOVE THE CROWN OF THE DRAIN OR SEWER WHENEVER WATERMAINS CROSS STORM SEWERS, SANITARY SEWERS, OR SEWER SERVICE CONNECTIONS. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATERMAIN LOCATED WITHIN TEN (10) FEET HORIZONTALLY OF ANY SEWER OR DRAIN CROSSED. A LENGTH OF WATERMAIN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANT FROM THE SEWER OR DRAIN.

16.2.2. BOTH THE STORM SEWER AND SANITARY SEWER SHALL BE CONSTRUCTED WITH PIPE EQUIVALENT TO WATERMAIN STANDARDS OF CONSTRUCTION OR THE STORM SEWER SHALL BE CONSTRUCTED USING "O" RING GASKET JOINTS, PER ASTM C-443, OR THE WATERMAIN MAY BE IN ENCASED IN A WATERTIGHT CASING PIPE WHEN:

16.2.2.1. IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION, AS DESCRIBED ABOVE; OR

16.2.2.2. THE WATERMAIN PASSES UNDER A SEWER OR DRAIN.

16.2.3. A VERTICAL SEPARATION OF EIGHTEEN (18) INCHES BETWEEN THE INVERT OF THE SEWER OR DRAIN AND THE CROWN OF THE WATERMAIN SHALL BE MAINTAINED WHERE A WATERMAIN CROSSES UNDER A SEWER. SUPPORT THE SEWER OR DRAIN LINES TO PREVENT SETTLING AND BREAKING OF THE WATERMAIN.

16.2.4. 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) FEET.

17. ALL WATERMAINS SHALL BE PRESSURE-TESTED FOR A MIN. OF 2 HOURS AT 200 PSI, FLUSHED, AND DISINFECTED IN ACCORDANCE WITH AWWA AND MUNICIPALITY SPECIFICATIONS. EACH VALVE SECTION SHALL BE PRESSURE-TESTED FOR A MINIMUM OF ONE (1) HOUR. ALLOWABLE LEAKAGE IS TO BE ONLY THAT WHICH IS PREDETERMINED BY THE MUNICIPALITY. AT NO TIME IS THERE TO BE ANY VISIBLE LEAKAGE FROM THE MAIN.

ADA GENERAL NOTES

1. CURB RAMPS ALONG PUBLIC STREETS AND IN THE PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS OF THE AUTHORITY HAVING JURISDICTION.
2. ALL ACCESSIBLE ROUTES, GENERAL SITE AND BUILDING ELEMENTS, RAMPS, CURB RAMPS, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO ADA STANDARDS FOR ACCESSIBLE DESIGN, LATEST EDITION.
3. ANY COMPONENTS OF THE PROJECT SERVING MULTI-FAMILY DWELLINGS IN BUILDINGS THAT HAVE (4) OR MORE UNITS PER DWELLING SHALL ALSO CONFORM TO THE FAIR HOUSING ACT (FHA), AND COMPLY WITH THE FAIR HOUSING ACT DESIGN MANUAL BY THE US DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
4. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES (PER ADA AND FHA) EXIST TO AND FROM EVERY DOOR AND ALONG SIDEWALKS, ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ACCESSIBLE ROUTES. IN NO CASE SHALL AN ACCESSIBLE RAMP SLOPE EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPES EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 5.0 PERCENT. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2.0 PERCENT SLOPE IN ANY DIRECTION.
5. CONTRACTOR SHALL TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAVEMENT TO VERIFY THAT ADA SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA SLOPE COMPLIANCE ISSUES.

ADDITIONAL NOTES

NOTE: ALL VILLAGE OF SUGAR GROVE NOTES AND STANDARDS TO SUPERCEDE CONFLICTING NOTES ON THIS SHEET.

ALL PUBLIC AND PRIVATE STORM SEWER, SANITARY, AND WATER MAIN SHALL BE SPECIFIED, INSTALLED, AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS IDENTIFIED PER THE VILLAGE OF SUGAR GROVE DEVELOPMENT CODE AND STANDARD DETAILS AS APPLICABLE.

NOTE: REFERENCES TO THE WORD "ENGINEER" REFER TO KIMLEY-HORN AND ASSOCIATES, INC.

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

Kimley»Horn

570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847-260-7804
WWW.KIMLEY-HORN.COM

THE GROVE - AREA 1
(SINGLE FAMILY)
SUGAR GROVE, IL 60554

GENERAL NOTES

SUGAR GROVE, LLC

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GENERAL NOTES

1. A PRECONSTRUCTION MEETING SHALL BE HELD PRIOR TO THE START OF ANY CONSTRUCTION, INCLUDING THE INSTALLATION OF TREE PROTECTION AND SOIL EROSION CONTROL MEASURES. THE CONTRACTOR SHALL NOTIFY THE VILLAGE ENGINEER A MINIMUM OF 10 DAYS IN ADVANCE OF STARTING ANY WORK. THE VILLAGE ENGINEER WILL COORDINATE THE PRECONSTRUCTION MEETING WITH THE VILLAGE STAFF, FIRE DISTRICT, POLICE DEPARTMENT, PARK DISTRICT, TOWNSHIP, AND KANE COUNTY DEPARTMENT OF TRANSPORTATION. THE DEVELOPER/OWNER, THE GENERAL CONTRACTOR, AND ALL MAJOR SUBCONTRACTORS SHALL ATTEND THE MEETING.
2. IN ADDITION TO THE FORMAL PRECONSTRUCTION MEETING AT THE BEGINNING OF THE PROJECT, A PRECONSTRUCTION MEETING SHALL BE HELD ON SITE BEFORE EACH MAJOR WORK ITEM (I.E. UNDERGROUND WORK, CURBS AND GUTTER, PAVING, ETC.). THE GENERAL CONTRACTOR AND THE FOREMAN TO COMPLETE THE WORK SHALL ATTEND THE MEETING AT A MINIMUM. THE VILLAGE ENGINEER SHALL BE CONTACTED 48 HOURS IN ADVANCE OF THE MEETING SO THAT THE MEETING CAN BE COORDINATED WITH THE APPROPRIATE PUBLIC WORKS STAFF MEMBERS AND OTHER AGENCIES. J.U.L.I.E. MARKINGS SHOULD BE RECENT AND VISIBLE AT THE TIME OF THE MEETING.
3. THE IDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION AND REVISIONS, THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", LATEST EDITION AND REVISIONS THERETO, THESE IMPROVEMENT PLANS AND DETAILS, SPECIAL PROVISIONS AND CODES AND ORDINANCES OF THE VILLAGE OF SUGAR GROVE, ILLINOIS SHALL GOVERN APPLICABLE PORTIONS OF THIS PROJECT. IF CONFLICTS ARISE, THE STRICTEST OF THE REQUIREMENTS SHALL GOVERN.
4. LOCATIONS OF UTILITIES SHOWN ON PLANS ARE APPROXIMATE ONLY, AND ARE NOT NECESSARILY COMPLETE. CONTRACTOR SHALL MAKE HIS OWN INVESTIGATIONS AS TO LOCATION AND ELEVATION OF ALL EXISTING UNDERGROUND STRUCTURES, CABLES, UTILITIES AND PIPE LINES.
5. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND VILLAGE SO THAT THE CONFLICT MAY BE RESOLVED.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL PRIVATE AND PUBLIC UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE PROJECT ENGINEER, THE VILLAGE, AND/OR THE UTILITY COMPANY BY THE CONTRACTOR AT HIS OWN EXPENSE.
7. THE CONTRACTOR SHALL NOTIFY J.U.L.I.E. (1-800-892-0123) AT LEAST TEN DAYS PRIOR TO CONSTRUCTION SO THAT EACH UTILITY COMPANY CAN STAKE OUT ANY UNDERGROUND IMPROVEMENTS THAT THEY MAY HAVE WHICH MIGHT INTERFERE WITH THE PROPOSED CONSTRUCTION.
8. THE CONTRACTOR SHALL BE REQUIRED TO MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS, STRUCTURES, POLES, CABLES AND PIPE LINES, 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 VILLAGE ENGINEER AND VILLAGE AT THE CONTRACTOR'S OWN EXPENSE.
9. THE CONTRACTOR SHALL OBTAIN, ERECT, MAINTAIN AND REMOVE ALL SIGNS, BARRICADES, FLAGMEN AND OTHER CONTROL DEVICES AS MAY BE NECESSARY FOR THE PURPOSE OF REGULATING, WARNING OR GUIDING TRAFFIC. PLACEMENT AND MAINTENANCE OF ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE APPLICABLE PARTS OF ARTICLE 107.14 OF THE IDOT STANDARD SPECIFICATIONS, THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS".
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE AND HEALTHFUL WORKING CONDITIONS THROUGHOUT THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
11. BEFORE ACCEPTANCE AND RELEASE OF THE SURETY BY THE VILLAGE AND FINAL PAYMENT, ALL WORK SHALL BE INSPECTED AND APPROVED BY THE VILLAGE ENGINEER.
12. THE CONTRACTOR WILL HAVE IN HIS POSSESSION ON THE JOB SITE AT ALL TIMES A COPY OF THE VILLAGE APPROVED PLANS AND SPECIFICATIONS DURING CONSTRUCTION.
13. THE CONTRACTOR SHALL RESTORE ANY AREA DISTURBED TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL USE AND TO THE SATISFACTION OF THE VILLAGE ENGINEER. THIS SHALL INCLUDE FINISH GRADING, EXCESS STONE REMOVAL ESTABLISHMENT OF A VEGETATIVE COVER (SEEDING OR SOD), GENERAL CLEANUP AND PAVEMENT REPLACEMENT.
14. NO UNPROTECTED EXCAVATION SHALL REMAIN OPEN OVER ANY WEEKEND. OVERNIGHT OPEN EXCAVATIONS SHALL BE SATISFACTORILY PROTECTED AND MEET ALL OSHA REQUIREMENTS.
15. WITH THE EXCEPTION OF CURB INLETS, UTILITY STRUCTURES SHALL NOT BE CONSTRUCTED IN PAVED AREAS, INCLUDING ROADWAYS, SIDEWALKS, CURB AND GUTTER, AND/OR TRAILS.
16. TRENCH BACKFILL SHALL BE PROVIDED AT ALL UTILITY TRENCHES AND REMOVAL OF UTILITY TRENCHES IN ALL PAVED AREAS AND 2 FEET BEYOND, INCLUDING ROADWAYS, CURBS AND GUTTER, SIDEWALK, TRAILS, AND DRIVEWAYS. INITIAL TRENCH BACKFILL AND BEDDING SHALL BE GRADED CA-7 STONE. THE VILLAGE ENGINEER CAN APPROVE THE OPTION TO USE FLOWABLE FILL (CLSM) IDOT MIX #2 IN LIEU OF THE STONE. THE FINAL TRENCH BACKFILL SHALL BE CA-6 CRUSHED AGGREGATE AND SHALL BE COMPACTED IN PLACE TO NINETY FIVE PERCENT (95%) OF MAXIMUM DENSITY AT OPTIMUM MOISTURE AS DETERMINED BY THE MODIFIED STANDARD PROCTOR TEST.
17. CURB PROTECTION IS REQUIRED AT ALL TIMES.
18. TREE PROTECTION SHALL BE INSTALLED ON SITE PRIOR TO THE START OF ANY CONSTRUCTION.
19. PRIOR TO THE START OF UNDERGROUND UTILITIES, THE SITE SHALL BE ROUGH GRADED TO WITHIN 1 FOOT OF THE FINAL GRADE.
20. MARKING OF VALVE VAULTS, BUFFALO BOXES AND MANHOLES: ALL MAIN LINE VALVE VAULTS, BUFFALO BOXES AND MANHOLES SHALL BE MARKED AT THE TIME OF CONSTRUCTION WITH A FOUR INCH BY FOUR INCH (4" X 4") HARDWOOD POST NEATLY INSTALLED VERTICALLY WITH A MINIMUM THREE FEET (3') BURY AND A MINIMUM FOUR FEET (4') EXPOSED. THE TOP ONE FOOT (1') OF THE POST SHALL BE PAINTED AS FOLLOWS: BLUE FOR WATER AND GREEN FOR SANITARY SEWERS.
21. ALL FINAL ADJUSTMENTS OF CASTINGS WILL BE ACCOMPLISHED BY THE USE OF CONCRETE (OR OTHER APPROVED MATERIAL) ADJUSTING RINGS SET IN BUTYL ROPE JOINT SEALANT; MORTAR JOINTS WILL NOT BE ALLOWED. HEIGHT OF ADJUSTING RINGS SHALL NOT EXCEED EIGHT INCHES (8") OR EXCEED TWO (2) RINGS.
22. AT A MINIMUM, ALL PARKWAYS WITHIN THE DEDICATED STREET RIGHT OF WAY SHALL BE GRADED, FOREIGN MATERIALS REMOVED, TOPSOIL PLACED TO A MINIMUM THICKNESS OF FOUR INCHES (4"), EROSION CONTROL BLANKET PLACED, AND SEEDED (CLASS 1A MINIMUM UNLESS OTHERWISE SPECIFIED) OR SODDED IN AN APPROVED MANNER. SIDEWALKS, TRAILS, AND PARKWAY TREES SHALL BE PROPERLY INSTALLED AND APPROVED PRIOR TO ACCEPTANCE AND RELEASE OF SURETIES.
23. ABSOLUTELY NO SUBSTITUTIONS OR VARIANCES WILL BE PERMITTED TO ANY OF THE VILLAGE OF SUGAR GROVE STANDARD NOTES OR ORDINANCES UNLESS APPROVED OTHERWISE BY THE VILLAGE IN WRITING PRIOR TO COMMENCING CONSTRUCTION ACTIVITY.

SOIL EROSION AND SEDIMENTATION CONTROL

1. GENERAL
   - a) ON SITE SEDIMENT CONTROL MEASURES, AS SPECIFIED BELOW, SHALL BE CONSTRUCTED AND FUNCTIONAL PRIOR TO INITIATING CLEARING, GRADING, STRIPPING, EXCAVATION OR FILL ACTIVITIES ON THE SITE.
   - b) THE CONTRACTOR SHALL PROVIDE SOIL EROSION AND SEDIMENTATION CONTROL IN ACCORDANCE WITH VILLAGE ORDINANCES, VILLAGE STANDARD SPECIFICATIONS FOR IMPROVEMENTS, "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" (THE YELLOW BOOK), THE ILLINOIS URBAN MANUAL (LATEST EDITION), AND IN ACCORDANCE WITH THE APPROVED PLANS, THE KANE COUNTY STORMWATER MANAGEMENT ORDINANCE, THE VILLAGE'S MS4 PERMIT, AND AS APPLICABLE BOTH THE STORMWATER POLLUTION PREVENTION PLAN AND THE NOTICE OF INTENT AS ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA).
   - c) THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A LOG OF THE CONDITIONS OF THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES PER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) (REGIONAL OR PROJECT SPECIFIC) PERMIT REQUIREMENTS. THE CONTRACTOR IS OBLIGATED TO REVIEW AND RECORD THE STATUS OF THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AT MINIMUM EVERY WEEK AND AFTER EVERY ½" RAINFALL EVENT. THIS LOG SHALL BE KEPT ON SITE, AND THE VILLAGE AND/OR VILLAGE ENGINEER RESERVES THE RIGHT TO REVIEW THIS LOG UPON REQUEST. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CLEANED AND RESTORED AS REQUIRED.
   - d) THE VILLAGE ENGINEER OR HIS REPRESENTATIVE WILL HAVE THE AUTHORITY TO STOP WORK IF PROPER SOIL STABILIZATION AND SEDIMENTATION CONTROLS ARE NOT BEING OBSERVED.
   - e) ANY DEFICIENCIES IN SOIL EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE REPORTED TO THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY.
2. SOIL STABILIZATION
   - a) TOPSOIL STRIPPING -STRIPPED TOPSOIL SHALL BE STOCKPILED ON-SITE (FOR REUSE) AT THE LOCATION(S) DESIGNATED ON THE APPROVED PLANS AND STABILIZED ACCORDINGLY.
   - b) TEMPORARY SEEDING – TEMPORARY SEEDING SHALL BE PROVIDED WITHIN 7 DAYS TO ANY DISTURBED AREAS THAT ARE SCHEDULED TO REMAIN DENUDED FOR LONGER THAN 15 DAYS.
   - c) PERMANENT SEEDING – IMMEDIATELY FOLLOWING FINISH GRADING AND TOPSOIL PLACEMENT, SEEDING OR SOD SHALL BE INSTALLED IN AREAS AS DESIGNATED ON PLANS.
   - d) DUST CONTROL – UNDER DRY CONDITIONS WHERE SOIL MIGRATION IS AN ISSUE, THE CONTRACTOR WILL BE REQUIRED TO WET THE EXPOSED UNPROTECTED SOIL SURFACE WITH WATERING TRUCKS TO EFFECTIVELY ELIMINATE SOIL MIGRATION. GRADING ACTIVITIES PRODUCING DUST MUST BE SUSPENDED UNTIL THE NUISANCE IS ABATED. IF, AT THE VILLAGE ENGINEER'S DISCRETION, PROPER DUST CONTROL IS NOT BEING OBSERVED, AN ORDER TO IMMEDIATELY STOP WORK WILL BE ISSUED UNTIL PROPER DUST CONTROL MEASURES ARE IMPLEMENTED.
   - e) PAVED AREAS -THE AGGREGATE BASE COURSE SHOULD BE INSTALLED AS SOON AS POSSIBLE TO STABILIZE THE EXPOSED SOIL SUBGRADE. IN CERTAIN CONDITIONS AND AS RECOMMENDED BY A GEOTECHNICAL PROFESSIONAL, LIME STABILIZATION OF ROADWAY SUB-GRADE MAY BE APPROVED BY THE VILLAGE ENGINEER. VILLAGE ENGINEER APPROVAL MUST BE OBTAINED IN WRITING PRIOR TO LIME STABILIZATION.
   - f) SLOPE PROTECTION -STEEP SLOPES MAY REQUIRE ADDITIONAL STABILIZATION, IN ADDITION TO SEEDING, SUCH AS MULCH, GEOTEXTILES, SOD, OR EQUAL.
3. SEDIMENT CONTROL
   - a) FOR PROJECTS DISTURBING GREATER THAN 1 ACRE, THE PROJECT SHALL COMPLY WITH IEPA REGULATIONS WITH A NOTICE OF INTENT AND STORMWATER POLLUTION PREVENTION PLAN.
   - b) FOR DISTURBED AREAS MORE THAN ONE ACRE, A SEDIMENT TRAP OR EQUIVALENT CONTROL MEASURE SHALL BE CONSTRUCTED AT THE DOWNSLOPE POINT OF THE DISTURBED AREA.
   - c) SEDIMENT BASIN AND SEDIMENT TRAP DESIGNS SHALL PROVIDE FOR BOTH DETENTION STORAGE AND SEDIMENT STORAGE. THE DETENTION STORAGE SHALL BE COMPOSED OF EQUAL VOLUMES OF WET DETENTION STORAGE AND DRY DETENTION STORAGE, AND EACH SHALL BE SIZED FOR THE 2-YEAR, TWENTY-FOUR (24) HOUR RUNOFF FROM THE SITE UNDER MAXIMUM RUNOFF CONDITIONS DURING CONSTRUCTION. THE RELEASE RATE OF THE BASIN SHALL BE THAT RATE REQUIRED TO ACHIEVE MINIMUM DETENTION TIMES OF AT LEAST TEN (10) HOURS. THE ELEVATION OF THE OUTLET STRUCTURE SHALL BE PLACED SUCH THAT IT ONLY DRAINS THE DRY DETENTION STORAGE.
   - d) ADJACENT PROPERTY PROTECTION -ADJACENT PROPERTIES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION BY PRESERVING A VEGETATED BUFFER STRIP (MINIMUM WIDTH OF 25 FEET) OR SEDIMENT BARRIERS (E.G. SILT FENCE) AT THE LOWER PERIMETER OF THE LOT. WHERE POSSIBLE, BOTH A VEGETATED BUFFER STRIP AND SEDIMENT BARRIER SHALL BE INSTALLED.
   - e) STOCKPILE PROTECTION – SEDIMENTATION BARRIERS SHALL BE PROVIDED IN ALL AREAS AROUND THE PERIMETER OF STOCKPILE AREAS.
   - f) STORM SEWER INLET PROTECTION – DURING CONSTRUCTION SEDIMENT SHALL BE FILTERED THROUGH A FILTER FABRIC BARRIER AROUND ALL FRONT, SIDE, OR BACKYARD INLETS BEFORE IT ENTERS NEWLY CONSTRUCTED STORM SEWER (STRAW BALES ARE NOT ALLOWED). THE VILLAGE RECOMMENDS ALL STORM SEWER INLET STRUCTURES (INCLUDING ROADWAY AND FRONT, SIDE, OR BACKYARD STRUCTURES) UTILIZE IPP INLET FILTERS™, MARATHON MATERIALS, INC. "CATCH ALL INLET PROTECTOR" SEDIMENT CONTROL INLET FILTERS OR APPROVED EQUAL TO PROPERLY MANAGE SEDIMENT CONTROL AND TO MINIMIZE STORM SEWER TELEVISING AND CLEANING WHICH WOULD OTHERWISE BE REQUIRED PRIOR TO VILLAGE ACCEPTANCE OF THE STORM SEWER SYSTEM. ALL INLET FILTERS SHALL BE PROPERLY MAINTAINED UNTIL SUCH TIME AS ALL AREAS TRIBUTARY TO A PARTICULAR INLET HAVE BEEN ADEQUATELY VEGETATED AS DETERMINED BY THE VILLAGE ENGINEER.
   - g) DITCH PROTECTION – ROCK DAMS SHALL BE INSTALLED AS DITCH CHECKS AND STAKED IN PLACE AT 250 LINEAL FEET MAXIMUM SPACING IN ALL SWALES. IF DITCH SLOPES ARE SEVERE, CLOSER SPACING OF DITCH CHECKS MAY BE REQUIRED. STRAW BALES AND SILT FENCES ARE NOT ALLOWED AS DITCH CHECKS.
   - h) CONSTRUCTION ACCESS – CONSTRUCTION TRAFFIC SHALL ENTER AND LEAVE THE SITE AT A DESIGNATED ACCESS. PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY RUNOFF OR VEHICLE TRACKING ONTO STATE/COUNTY/TOWNSHIP HIGHWAYS OR LOCAL STREETS. TRUCK WASHING FACILITIES MAY BE REQUIRED. IF NECESSARY, HIGHWAYS OR LOCAL STREETS SHALL BE CLEANED DAILY AT THE END OF EACH WORKDAY OR AS REQUIRED BY THE VILLAGE ENGINEER TO KEEP MUD AND/OR OTHER DEBRIS OFF OF ANY HIGHWAY OR STREET.
   - i) ROADWAY CLEANING & STREET SWEEPING -ROADWAYS SHALL BE KEPT CLEAN DURING THE COURSE OF CONSTRUCTION BY UTILIZING MANUAL CLEANING, STREET SWEEPERS, OR OTHER MACHINERY. UPON THE INSTALLATION OF THE FINAL SURFACE COURSE OF THE ROADWAY, ABSOLUTELY NO HEAVY MACHINERY (E.G. SKID STEER, ENDLOADER) SHALL BE UTILIZED FOR ROADWAY CLEANING.
   - j) REMOVAL OF CONTROL MEASURES -AFTER FINAL SITE STABILIZATION IS DEEMED ACHIEVED BY THE VILLAGE ENGINEER, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS.

FIELD REVIEW

1. GENERAL
   - a) THE VILLAGE ENGINEER OR THEIR REPRESENTATIVE SHALL MAKE FIELD REVIEWS AS DESCRIBED BELOW, AND SHALL EITHER STATE THAT THE PORTION OF THE WORK IS COMPLETED SATISFACTORILY OR SHALL NOTIFY THE DEVELOPER WHEN THE WORK FAILS TO COMPLY WITH THE SITE DEVELOPMENT OR EROSION AND SEDIMENTATION CONTROL PLAN AS APPROVED. IN ORDER TO OBTAIN FIELD REVIEWS AND TO ENSURE COMPLIANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, THE GRADING OR BUILDING PERMIT, AND THIS TITLE, THE DEVELOPER SHALL NOTIFY THE VILLAGE ENGINEER WITHIN TWO (2) WORKING DAYS OF THE COMPLETION OF THE CONSTRUCTION STAGES SPECIFIED BELOW:
     1. UPON COMPLETION OF INSTALLATION OF SEDIMENT AND RUNOFF CONTROL MEASURES (INCLUDING PERIMETER CONTROLS AND DIVERSIONS), PRIOR TO PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING;
     2. AFTER STRIPPING AND CLEARING;
     3. AFTER ROUGH GRADING;
     4. AFTER FINAL GRADING;
     5. AFTER SEEDING AND LANDSCAPING DEADLINES; AND
     6. AFTER FINAL STABILIZATION AND LANDSCAPING, PRIOR TO REMOVAL OF SEDIMENT CONTROLS.
   - b) IF STRIPPING, CLEARING, GRADING AND/OR LANDSCAPING ARE TO BE DONE IN PHASES OR AREAS, THE DEVELOPER SHALL GIVE NOTICE AND REQUEST A FIELD REVIEW AT THE COMPLETION OF EACH OF THE ABOVE WORK STAGES IN EACH PHASE OR AREA. IF A FIELD REVIEW IS NOT MADE AND NOTIFICATION OF THE RESULTS GIVEN WITHIN FIVE (5) WORKING DAYS AFTER NOTICE IS RECEIVED FROM THE DEVELOPER, THE DEVELOPER MAY CONTINUE WORK AT HIS OWN RISK, WITHOUT PRESUMING ACCEPTANCE BY THE VILLAGE. NOTIFICATION OF THE RESULTS OF THE INSPECTION SHALL BE GIVEN IN WRITING TO THE DEVELOPER.

WATER MAIN CONSTRUCTION

1. ALL WATER MAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", LATEST EDITION AND REVISIONS THERETO, THESE IMPROVEMENT PLANS AND DETAILS, SPECIAL PROVISIONS AND IN ACCORDANCE WITH CODES AND ORDINANCES OF THE VILLAGE OF SUGAR GROVE, ILLINOIS. IN CASE OF CONFLICT WITH VILLAGE CODES, DRAWINGS, AND THESE STANDARD NOTES, THE VILLAGE ENGINEER SHALL BE CONTACTED TO CONFIRM WHICH IS CORRECT.
2. ALL WATER MAIN SHALL BE DUCTILE IRON PIPE CLASS 52 WITH EITHER MECHANICAL OR PUSH-ON JOINTS WITH BRASS WEDGES AND SHALL CONFORM TO ANSI A21.51, AWWA C151 AND ANSI A21.11, AWWA C111. PIPE SHALL BE MANUFACTURED IN THE UNITED STATES.
3. ALL FITTINGS SHALL BE COMPACT DUCTILE IRON AND SHALL CONFORM TO ANSI/AWWA C153/421.53-84. FITTINGS SHALL BE U.L. LISTED CLASS 350, TYLER, GRIFFIN OR APPROVED EQUAL. FITTINGS SHALL BE MANUFACTURED IN THE UNITED STATES.
4. ALL PIPE AND FITTINGS SHALL BE CEMENT LINED IN ACCORDANCE WITH ANSI/AWWA C104/421.4.
5. ALL FITTINGS SHALL BE MECHANICAL JOINT AND INSTALLED WITH RETAINER GLANDS UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
6. LONG RADIUS CURVES, EITHER HORIZONTAL OR VERTICAL, MAY BE LAID WITH STANDARD PIPE BY DEFLECTIONS AT THE JOINTS. MAXIMUM DEFLECTIONS AT PIPE JOINTS AND LAYING RADIUS FOR THE VARIOUS PIPE LENGTHS SHALL BE IN ACCORDANCE WITH ANSI/AWWA C600. WHEN RUBBER GASKETED PIPE IS LAID ON A CURVE, THE PIPE SHALL BE JOINTED IN A STRAIGHT ALIGNMENT AND THEN DEFLECTED TO THE CURVED ALIGNMENT. TRENCHES SHALL BE MADE WIDER ON CURVES FOR THIS PURPOSE.
7. SLEEVES SHALL BE ROCKWELL D.I. COUPLING TYPE 441, TYLER UNION OR EQUAL. SLEEVES SHALL BE PROVIDED AT LOCATIONS SHOWN ON THE PLANS OR AS REQUIRED. THE COST OF SLEEVES IS CONSIDERED AS INCIDENTAL TO THE COST OF THE PROJECT.
8. ALL GATE VALVES SHALL HAVE A NON-RISING STEM, SHALL HAVE A STANDARD OPERATING NUT AND SHALL OPEN IN A COUNTER-CLOCKWISE DIRECTION. GATE VALVES SHALL BE AMERICAN FLOW CONTROL SERIES 2500 DUCTILE IRON RESILIENT WEDGE GATE VALVES IN ACCORDANCE WITH AWWA C-515 STANDARD. ALL GATE VALVES SHALL BE INSTALLED IN PRECAST PCC VALVE VAULTS.
9. ALL VALVE BOXES SHALL BE HEAVY WALL HIGH DENSITY POLYETHYLENE AMERICAN FLOW CONTROL TRENCH ADAPTERS. LIDS TO BE MARKED "WATER". OPEN GRADED (CA-7) LIMESTONE SHALL BE UTILIZED TO BACKFILL AROUND THE OPERATING NUT ON ALL VALVE BOXES TO PREVENT MUD FROM PENETRATING THE VALVE BOXES.
10. ALL HYDRANTS SHALL BE IN ACCORDANCE WITH SECTION FOUR (4) OF AWWA C502-54 STANDARD AND SHALL BE AN AMERICAN FLOW CONTROL/WATEROUS PACER MODEL NO. WB-67-250 (BREAK AWAY STYLE TRAFFIC DESIGN) WITH ONE 4 ½" STEAMER NOZZLE AND TWO 2 ½" HOSE OUTLETS, OF WHICH THE THREADS CONFORM WITH THE STANDARDS OF THE VILLAGE OF SUGAR GROVE, ILLINOIS. ALL HYDRANTS SHALL HAVE AN AUXILIARY GATE VALVE. HYDRANT INSTALLATIONS SHALL HAVE 5.5' DEPTH OF COVER. FIRE HYDRANTS SHALL BE PLACED 3 FOOT FROM THE BACK OF CURB TO THE CENTER OF THE HYDRANT, OR WHERE THERE IS NO CURB AND GUTTER, THE FACE OF THE PUMPER NOZZLE SHALL BE LOCATED FIVE FEET (5') FROM THE PAVED ROAD EDGE. CENTER LINE OF PUMPER NOZZLE SHALL BE EIGHTEEN INCHES (18") TO TWENTY INCHES (20") ABOVE FINISH GRADE LINE (SIDEWALK TO CURB).
11. ALL FIRE HYDRANTS SHALL BE FACTORY PAINTED. POTABLE WATER FIRE HYDRANTS SHALL BE RED, AND RAW WATER FIRE HYDRANTS SHALL BE GREEN. THE EXACT COLORS SHALL BE APPROVED BY THE VILLAGE ENGINEER. FIRE HYDRANTS SHALL BE FLAGGED.
12. L MECHANICAL JOINT FITTINGS, VALVES AND HYDRANTS SHALL BE RESTRAINED WITH RETAINER GLANDS. RETAINER GLANDS SHALL BE UNI-FLANGE SERIES 1400 WEDGE ACTION RETAINER GLAND OR APPROVED EQUAL.
13. ALL PRESSURE TAPS TO AN EXISTING VILLAGE MAIN SHALL BE MADE WITH AN AMERICAN FLOW CONTROL SERIES 2800 COMPACT DUCTILE IRON MECHANICAL JOINT TAPPING SLEEVE AND AN AMERICAN FLOW CONTROL SERIES 2500 DUCTILE IRON RESILIENT WEDGE TAPPING VALVE (MJ X FL) AND SHALL BE CONSTRUCTED IN A FIVE (5') FOOT MINIMUM DIAMETER VALVE VAULT. ALL TAPS SHALL BE PERFORMED BY THE CONTRACTOR AFTER PAYMENT OF APPLICABLE CONNECTION FEES AND SHALL BE WITNESSED BY THE VILLAGE. THE VILLAGE ENGINEER SHOULD BE NOTIFIED 48 HOURS IN ADVANCE OF ANY TAP.
14. ALL TEES, BENDS, VALVES, AND FIRE HYDRANTS SHALL BE ADEQUATELY SUPPORTED WITH A CONCRETE BLOCK BASE, AND SUPPORTED LATERALLY WITH PRECAST CONCRETE THRUST BLOCKING (NOT POURED-IN-PLACE) AGAINST UNDISTURBED EARTH.
15. ALL WATER MAINS SHALL HAVE A MINIMUM DEPTH OF COVER OF 5.5' FROM THE FINISH GRADE TO THE TOP OF PIPE OR AS NOTED ON PLANS.
16. WHERE FEASIBLE, ALL VERTICAL WATER MAIN ADJUSTMENTS SHALL BE ACCOMPLISHED BY DEFLECTION, NOT BENDS IN THE WATER MAIN.
17. ALL WATER SERVICES SHALL BE MINIMUM ONE (1") INCH DIAMETER TYPE "K" COPPER PIPE WITH COMPRESSION CONNECTIONS. LARGER SERVICES ARE ALLOWED UPON PROPER JUSTIFICATION AND APPROVAL BY VILLAGE ENGINEER. NO JOINTS WILL BE ALLOWED BETWEEN THE CORPORATION STOP AND THE CURB STOP. MATERIAL AND INSTALLATION WILL BE IN GENERAL ACCORDANCE WITH AWWA C800. THE UNDERGROUND WATER SERVICE PIPE AND THE BUILDING SEWER SHALL BE NOT LESS THAN TEN FEET (10') APART HORIZONTALLY AND SHALL BE SEPARATED BY UNDISTURBED OR COMPACTED EARTH.
18. THE BUFFALO BOXES SHALL BE SET IN THE PARKWAY BETWEEN THE BACK OF CURB AND THE SIDEWALK. LONG SERVICES SHALL BE SET AT THE MID-POINT BETWEEN THE BACK OF CURB. SHORT SERVICES SHALL BE SET ONE FOOT OFF OF THE SIDEWALK.
19. THE CONTRACTOR SHALL OBTAIN, ERECT, MAINTAIN AND REMOVE ALL SIGNS, BARRICADES, FLAGMEN AND OTHER CONTROL DEVICES AS MAY BE NECESSARY FOR THE PURPOSE OF REGULATING, WARNING OR GUIDING TRAFFIC. PLACEMENT AND MAINTENANCE OF ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE APPLICABLE PARTS OF ARTICLE 107.14 OF THE STANDARD SPECIFICATIONS AND THE ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. CONTRACTOR SHALL FURNISH A TRAFFIC CONTROL PLAN FOR IDOT OR VILLAGE APPROVAL IF REQUIRED.
20. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CODE REQUIREMENTS.
21. THE CONTRACTOR SHALL RESTORE ANY AREA DISTURBED TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL USE. THIS SHALL INCLUDE FINISH GRADING, ESTABLISHMENT OF A VEGETATIVE COVER (SEEDING OR SOD), GENERAL CLEANUP AND PAVEMENT REPLACEMENT.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE AND HEALTHFUL WORKING CONDITIONS THROUGHOUT THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
23. BEFORE ACCEPTANCE BY THE VILLAGE ALL WORK SHALL BE INSPECTED AND APPROVED BY THE VILLAGE OR ITS REPRESENTATIVES.
24. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.
25. WATER MAINS AND WATER SERVICE LINES SHALL BE PROTECTED FROM SANITARY SEWERS, STORM SEWERS, COMBINED SEWERS, HOUSE SEWER SERVICE CONNECTIONS AND DRAINS IN ACCORDANCE WITH TITLE 35: ENVIRONMENTAL PROTECTION AGENCY SUBTITLE F: PUBLIC WATER SUPPLIES, CHAPTER II: ENVIRONMENTAL PROTECTION AGENCY, PARTS 651-654 TECHNICAL POLICY STATEMENTS, SECTION 653.119.
26. WHENEVER POSSIBLE, A WATER MAIN MUST BE LAID AT LEAST TEN FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED DRAIN OR SEWER LINE. SHOULD LOCAL CONDITIONS EXIST WHICH WOULD PREVENT A LATERAL SEPARATION OF TEN FEET, A WATER MAIN MAY BE LAID CLOSER THAN TEN FEET TO A STORM OR SANITARY SEWER PROVIDED THAT THE WATER MAIN INVERT IS AT LEAST EIGHTEEN INCHES ABOVE THE CROWN OF THE SEWER, AND IS EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON AN UNDISTURBED EARTH SHELF LOCATED TO ONE SIDE OF THE SEWER. IF IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL OR VERTICAL SEPARATION AS DESCRIBED ABOVE, THEN THE SEWER MUST ALSO BE CONSTRUCTED OF WATER MAIN TYPE MATERIAL (DUCTILE IRON PIPE WITH SLIP-ON OR MECHANICAL JOINTS, PRESTRESSED REINFORCED CONCRETE PIPE WITH ASTM C-443 JOINTS, ETC.) AND PRESSURE TESTED TO THE MAXIMUM EXPECTED SURCHARGE HEAD TO ASSURE WATER TIGHTNESS BEFORE BACKFILLING.
27. WHENEVER WATER MAINS MUST CROSS HOUSE SEWERS, STORM SEWERS OR SANITARY SEWERS, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE INVERT OF THE WATER MAIN IS EIGHTEEN INCHES ABOVE THE CROWN OF THE DRAIN OR SEWER. THIS VERTICAL SEPARATION MUST BE MAINTAINED FOR THAT PORTION OF THE WATER MAIN LOCATED WITHIN TEN FEET HORIZONTALLY OF ANY SEWER OR DRAIN CROSSED. THIS MUST BE MEASURED AS THE NORMAL DISTANCE FROM THE WATER MAIN TO THE DRAIN OR SEWER. IF IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED ABOVE OR IF IT IS NECESSARY FOR THE WATER MAIN TO PASS UNDER A SEWER OR DRAIN, THEN THE SEWER MUST BE CONSTRUCTED OF WATER MAIN TYPE MATERIAL (AS NOTED IN ITEM 26). THIS CONSTRUCTION MUST EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE NORMAL DISTANCE FROM THE WATER MAIN TO THE SEWER OR DRAIN LINE IS AT LEAST TEN FEET. IN MAKING SUCH CROSSINGS, CENTER A LENGTH OF WATER MAIN PIPE OVER/UNDER THE SEWER TO BE CROSSED SO THAT THE JOINTS WILL BE EQUIDISTANT FROM THE SEWER AND AS REMOTE THEREFROM AS POSSIBLE. WHERE A WATER MAIN MUST CROSS UNDER A SEWER, A VERTICAL SEPARATION OF EIGHTEEN INCHES BETWEEN THE INVERT OF THE SEWER AND THE CROWN OF THE WATER MAIN SHALL BE MAINTAINED, ALONG WITH MEANS TO SUPPORT THE LARGER SIZED SEWER LINES TO PREVENT THEIR SETTLING AND BREAKING THE WATER MAIN.
28. VALVE VAULT FRAMES SHALL BE IDOT TYPE 1 (STANDARD 604001) AND ALL LIDS SHALL HAVE "SUGAR GROVE" AND "WATER" CAST INTO THEM.
29. VALVE VAULTS SHALL BE ADJUSTED WITH A MAXIMUM TWO (2) ADJUSTING RINGS TO A MAXIMUM OF EIGHT (8") INCHES. RINGS SHALL BE PRECAST CONCRETE OR OTHER MATERIAL APPROVED BY THE VILLAGE ENGINEER.
30. HYDROSTATIC TESTS – THE CONTRACTOR SHALL PERFORM HYDROSTATIC TESTS IN ACCORDANCE WITH DIVISION IV, SECTION 41 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION, AND APPLICABLE PROVISIONS OF AWWA C-600 AND C-603. THE WATER MAINS SHALL BE PRESSURE TESTED AT 150 PSI. ALLOWABLE LEAKAGE SHALL BE AS SET FORTH IN AWWA C-600 LATEST EDITION. THE MAXIMUM ALLOWABLE LEAKAGE SHALL BE BASED OFF OF THE FIRST 1,000 FEET OF PIPE (I.E. IF 2,000 FEET OF PIPE IS BEING TESTED, THE ALLOWABLE LEAKAGE WILL BE BASED ON THE FIRST 1,000 FEET ONLY.) THE DURATION OF THE TEST SHALL BE FOR TWO HOURS MINIMUM, AND THE MAXIMUM PRESSURE DROP DURING THIS TWO HOUR PERIOD IS A CUMULATIVE 2 PSI. TO MEET THE TESTING REQUIREMENTS, THE WATER MAIN SHALL SATISFY THE PRESSURE DROP AND THE ALLOWABLE LEAKAGE REQUIREMENTS. THE GAUGE WILL BE ZEROED OUT BEFORE THE PRESSURE TEST BEGINS. IN ADDITION, THE PRESSURE GAUGE USED IN THE HYDROSTATIC TEST SHALL BE IN 2 PSI INCREMENTS OR LESS AND HAVE A MINIMUM OF A 3½" DIAMETER FACE.
31. DISINFECTION OF THE WATER MAINS – UPON COMPLETION AND SATISFACTORY PRESSURE TESTING OF THE NEWLY LAID WATER MAINS, THE WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION, PROCEDURE DESIGNATION, AWWA C-651, LATEST EDITION. THE CONTRACTOR IS RESPONSIBLE FOR COLLECTING SAMPLES AND HAVING BACTERIOLOGICAL TESTING PERFORMED AS REQUIRED BY THE IEPA. THE CONTRACTOR SHALL FURNISH TO THE VILLAGE THE REQUIRED DOCUMENTATION, TEST RESULTS, ETC., REQUIRED BY THE IEPA FOR PLACING THE WATER MAINS OR SERVICE LINES IN SERVICE AND/OR SECURING AN OPERATING PERMIT.
32. WATER VALVES AND FIRE HYDRANTS SHALL BE OPERATED BY VILLAGE OF SUGAR GROVE PERSONNEL, ONLY.
33. THE DEVELOPER/CONTRACTOR SHALL CONTACT THE VILLAGE ENGINEER TO SCHEDULE OPERATION OF VALVES, FLUSH AND FILL, PRESSURE TEST, CHLORINATION, AND SAMPLING. THE VILLAGE ENGINEER WILL CONTACT THE VILLAGE ACCORDINGLY. THE DEVELOPER/CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE PRIOR TO PERFORMING ANY OF THESE WORK ITEMS. THE FOLLOWING ACTIVITIES MUST BE SCHEDULED WITH THE VILLAGE ENGINEER ON INDEPENDENT DAYS:
    - FLUSH AND FILL (WATER MAIN/SERVICE SHALL THEN BE PRE-TESTED.)
    - PRESSURE TEST (THE GAUGE SHALL BE ZEROED OUT BEFORE THE START OF THE TEST.)
    - CHLORINATION
    - 1ST DAY OF SAMPLING
    - 2ND DAY OF SAMPLING (CONSECUTIVE DAY AFTER 1ST DAY OF SAMPLING)
34. THE VILLAGE SHALL WITNESS ALL SERVICE TAPS GREATER THAN 1" IN DIAMETER. ACCORDINGLY, THE DEVELOPER/CONTRACTOR SHALL CONTACT THE VILLAGE ENGINEER 48 HOURS IN ADVANCE OF THE TAP.
35. FOX METRO WATER RECLAMATION DISTRICT SHALL BE CONTACTED BY THE DEVELOPER/CONTRACTOR TO OBSERVE THE CONSTRUCTION OF ALL WATER SERVICE LINES TO A BUILDING/HOUSE. THEIR OBSERVATION IS REQUIRED FROM THE SERVICE VALVE TO THE BUILDING/HOUSE.
36. ALL WATER MAIN SHALL BE PRE-PRESSURE TESTED PRIOR TO THE ACTUAL PRESSURE TEST THE VILLAGE ENGINEER AND/OR THE VILLAGE WITNESSES.

SANITARY SEWER CONSTRUCTION

1. ALL SANITARY MANHOLE FRAMES SHALL BE FOX METRO WATER RECLAMATION DISTRICT (FMWRD) APPROVED TYPE, AND ALL MANHOLE LIDS SHALL HAVE "SUGAR GROVE" AND "SANITARY" CAST INTO THEM.
2. ALL SANITARY SEWERS ARE SUBJECT TO THE REQUIREMENTS, SPECIFICATIONS, AND STANDARDS OF FOX METRO WATER RECLAMATION DISTRICT (FMWRD).
3. AT THE COST OF THE DEVELOPER/CONTRACTOR, ALL SANITARY SEWERS SHALL BE AIR AND MANDREL (DEFLECTION) TESTED PER FMWRD SPECIFICATIONS. LIKEWISE, ALL SANITARY MANHOLES SHALL BE AIR TESTED BY FMWRD SPECIFICATIONS. THE VILLAGE ENGINEER SHALL WITNESS ALL TESTING AND SHALL BE CONTACTED 48 HOURS IN ADVANCE OF ALL TESTING. THE VILLAGE ENGINEER WILL FORWARD ALL TEST RESULTS TO FMWRD UPON PASSING RESULTS OF THE ENTIRE SYSTEM. FMWRD IS RESPONSIBLE FOR THE TELEVISING OF THE SEWER LINES AT THE EXPENSE OF THE CONTRACTOR.
4. THE LOCATION OF THE ENDS OF ALL SANITARY SEWER SERVICE LOCATIONS SHALL BE NEATLY MARKED BY WOODEN POSTS AND SHALL BE TIED TO EACH PROPERTY CORNER WITH THE LOCATION BEING INCLUDED IN THE RECORD DRAWINGS. THE TOP 1' OF THE MARKER SHALL BE PAINTED GREEN.
5. ALL FINAL ADJUSTMENTS OF CASTINGS WILL BE ACCOMPLISHED BY THE USE OF CONCRETE OR OTHER APPROVED MATERIAL ADJUSTING RINGS SET IN BUTYL ROPE JOINT SEALANT; MORTAR JOINTS WILL NOT BE ALLOWED. HEIGHT OF ADJUSTING RINGS SHALL NOT EXCEED TWO (2) RINGS OR EIGHT INCHES (8"). ANY ADJUSTMENTS MADE AFTER TESTING MAY REQUIRE FURTHER TESTING

STORM SEWER CONSTRUCTION

1. GENERAL
   - a) ALL WORK AND MATERIAL SHALL BE IN ACCORDANCE WITH VILLAGE ORDINANCES, VILLAGE STANDARD SPECIFICATIONS FOR IMPROVEMENTS, AND THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" (LATEST EDITION). IN CASE OF CONFLICT, THE MORE STRINGENT OF THE REQUIREMENTS SHALL APPLY.
   - b) THE STORMWATER DRAINAGE SYSTEM SHALL BE SEPARATE AND INDEPENDENT OF THE SANITARY SEWER SYSTEM.
   - c) ALL STORM SEWER STRUCTURES, OTHER THAN CURB INLETS AND CURB CATCH BASINS SHALL BE MARKED AT THE TIME OF CONSTRUCTION WITH A 4" X 4" HARDWOOD POST NEATLY INSTALLED VERTICALLY WITH A MINIMUM 4 FEET BURY AND A MINIMUM 4 FEET EXPOSED. THE TOP 1 FOOT OF THE POST SHALL BE NEATLY PAINTED GREEN.
2. STORM SEWER
   - a) STORM SEWER WITHIN OR ADJACENT TO THE RIGHT OF WAY SHALL BE CONSTRUCTED OF REINFORCED CONCRETE PIPE (RCP) CONFORMING TO THE ASTM DESIGNATION C-76, CLASS III OR BETTER. OTHER MATERIALS FOR STORM SEWERS MAY BE USED IN SPECIAL CASES UPON THE WRITTEN APPROVAL OF THE VILLAGE ENGINEER. ANY FLEXIBLE PIPE STORM SEWER SYSTEMS SO APPROVED BY THE VILLAGE ENGINEER SHALL BE SUBJECT TO MANDREL TESTING, FOR ALL SECTIONS, 30 DAYS FOLLOWING INSTALLATION.
   - b) JOINTS FOR ALL CONCRETE STORM SEWERS SHALL BE OF THE BITUMINOUS MASTIC TYPE, EXCEPT WHEN OTHERWISE REQUIRED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY OR THE VILLAGE ENGINEER.
   - c) ALL STORM SEWERS THAT ENCROACH WITHIN FIFTEEN FEET (15') OF ANY BUILDING FOUNDATION SHALL BE 'O'-RING, OR OTHER RUBBER, GASKETED JOINTS AS PER THE ASTM C-443 SPECIFICATION.
   - d) EXISTING GROUNDWATER DRAIN TILES ENCOUNTERED ON SITE SHALL BE CONNECTED TO STORM SEWERS WITH THE USE OF A MANHOLE OR SHALL BE RESTORED TO OPERATING CONDITION AT THE DIRECTION OF THE VILLAGE ENGINEER. EXISTING GROUNDWATER DRAIN TILES THAT ENTER THE SITE FROM OTHER PROPERTIES SHALL BE CONNECTED TO THE NEW STORM SEWER SYSTEM WITH THE USE OF A MANHOLE.
   - e) ALL CLOSED STORM STRUCTURE LIDS SHALL HAVE "SUGAR GROVE" AND "STORM" CAST INTO THEM AND SHALL BE THE CONCEALED PICK HOLE TYPE.
3. MANHOLES, FRAMES AND LIDS
   - a) ALL MANHOLES, CATCH BASINS, AND INLETS SHALL BE REINFORCED PRECAST CONCRETE AND SHALL BE SEALED WITH BUTYL ROPE JOINT SEALANT UNLESS APPROVED OTHERWISE BY THE VILLAGE ENGINEER IN HIGH GROUNDWATER OR HIGH MOISTURE SOIL AREAS.
   - b) STORM SEWER STRUCTURES SHALL BE SIZED SUCH THAT A MINIMUM OF 12 INCHES OF PRECAST CONCRETE STRUCTURE IS PROVIDED BETWEEN ALL PIPE OPENINGS. IN PAVED AREAS, MANHOLE CASTINGS SHALL BE IDOT TYPE 1 NEENAH R-1713 FRAME AND LID, EJIW 1050, OR APPROVED EQUAL. IN NON-PAVED AREAS, WHERE CLOSED LIDS ARE NEEDED, USE NEENAH R-4340-B, EJIW 6512, OR APPROVED EQUAL.
   - c) IN AREAS OF HOT-MIX ASPHALT PAVEMENT, THE SPACE AROUND THE CASTING, A MINIMUM OF 18" FROM THE CASTING, SHALL BE FILLED WITH CLASS PP-2 CONCRETE TO A MINIMUM DEPTH OF 10 INCHES AND MATCHING THE ELEVATION OF THE SURFACE OF THE BASE COURSE OR BINDER COURSE. HMA SURFACE OR BINDER COURSE MATERIAL SHALL NOT BE ALLOWED. IN AREAS OF CONCRETE PAVEMENT, THE SPACE AROUND THE CASTING, A MINIMUM OF 18" FROM THE CASTING, SHALL BE FILLED WITH CLASS PP-2 CONCRETE TO A MINIMUM DEPTH OF 10 INCHES AND MATCHING THE ELEVATION OF THE FINISHED PAVEMENT SURFACE.
   - d) ALL CATCH BASINS AND INLETS WILL BE BACKFILLED WITH CA-7 CRUSHED LIMESTONE OR CRUSHED GRAVEL TO ALLOW FOR SUB-GRADE SEEPAGE. IF SUB-GRADE CONDITIONS ARE EXCESSIVELY WET, EXCESSIVELY SENSITIVE TO MOISTURE OR SPECIAL CONDITIONS EXIST, A CAPPED PERFORATED PIPE STUBBED FROM THE STRUCTURE MAY BE REQUIRED.
   - e) FOR M-3.12 CURB AND GUTTER UNDER PONDING OR CONTINUOUS GRADE CONDITIONS, INLET AND/OR CATCH BASIN FRAMES AND GRATES SHALL BE NEENAH R-3501-P, EJIW 7525, OR APPROVED EQUAL. FOR B-6.12 CURB AND GUTTER UNDER PONDING CONDITIONS, INLET AND/OR CATCH BASIN FRAMES AND GRATES SHALL BE NEENAH R-3281-A WITH TYPE M1 GRATE, EJIW 7210 WITH TYPE M1 GRATE, OR APPROVED EQUAL. FOR B-6.12 CURB AND GUTTER UNDER CONTINUOUS GRADE CONDITIONS, INLET AND/OR CATCH BASIN FRAMES AND GRATES SHALL BE NEENAH R-3281-AL, EJIW 7210 WITH TYPE M4 VANE GRATE & T1 BACK OR APPROVED EQUAL. WHEN ADDITIONAL GRATE CAPACITY IS NEEDED IN PONDING CONDITIONS TO HANDLE THE TRIBUTARY FLOW, ADDITIONAL INLET STRUCTURES SHALL BE UTILIZED. IN CASES WHERE STORM SEWER INLETS ARE USED IN DEPRESSED BARRIER CURB AREAS, USE NEENAH NO. R-3506-B, OR APPROVED EQUAL. IN REAR YARDS AND ALL OTHER TURF APPLICATIONS (EXCEPT ROADSIDE DITCH DRAINAGE APPLICATIONS) CATCH BASINS SHALL USE USE NEENAH R-4340-B, EJIW 6512, OR APPROVED EQUAL. ROADSIDE DITCH DRAINAGE STRUCTURES SHALL BE EVALUATED ON A CASE BY CASE BASIS.
   - f) NO MORE THAN TWO (2) PRE-CAST CONCRETE OR OTHER APPROVED MATERIAL ADJUSTING RINGS, NOT EXCEEDING 8 INCHES THICKNESS, MAY BE USED FOR CURB INLETS OR CURB CATCH BASINS. IN ALL OTHER STORM SEWER APPLICATIONS, NOT MORE THAN 2 PRECAST CONCRETE OR OTHER APPROVED MATERIAL ADJUSTING RINGS SHALL BE USED, TOTALING NO MORE THAN 8 INCHES, ON ANY STRUCTURE.
4. SUMP PUMPS & SERVICE LINES
   - a) ALL SUMP PUMP SYSTEMS SHALL DISCHARGE TO THE PUBLIC STORM SEWER SYSTEM. PERFORATED PIPE SHALL NOT BE USED WITHIN 10 FEET OF A FOUNDATION WALL. SUMP PUMP DISCHARGES TO A CLOSED PIPE SYSTEM SHALL BE PROVIDED WITH AN OUTSIDE AIR BREAK TO FACILITATE FLOW.
   - b) THE CONNECTION TO THE STORM SEWER SHALL BE THROUGH A STRUCTURE. STUBS SHALL BE PROVIDED AS APPROPRIATE FOR ALL LOTS AND SHALL EXTEND AT A MINIMUM TO THE EASEMENT LINE TO AVOID EXCAVATION ISSUES WITH OTHER BURIED UTILITIES. ALL PIPE USED FOR SUMP PUMP DISCHARGE COLLECTOR LINES SHALL BE PERFORATED PVC (SDR-35) OR ADS N-12 OF THE SIZE SPECIFIED BY THE ENGINEER.
   - c) ALL INDIVIDUAL SUMP PUMP LINES SHALL BE CONNECTED TO A STORM STRUCTURE OR SUMP PUMP DISCHARGE COLLECTOR LINE STRUCTURE. SUMP PUMP COLLECTION LINES SHALL BE 6 INCHES DIAMETER MINIMUM. SUMP PUMP DISCHARGE COLLECTOR LINES SHALL HAVE A CLEANOUT/INLET STRUCTURE AT THE UPSTREAM END AND SHALL HAVE A CLEANOUT/INLET STRUCTURE EVERY 300 FEET MAXIMUM. SUMP PUMP CLEANOUT STRUCTURES SHALL BE 2 FOOT DIAMETER STRUCTURES AND WILL NOT BE ALLOWED TO PICK UP SURFACE DRAINAGE. THE FRAME AND LID SHALL BE NEENAH NO. R-1706-1 OR APPROVED EQUAL.
   - d) THE MINIMUM DEPTH OF COVER FOR SUMP PUMP SERVICE LINES IS 30".
   - e) ALL SUMP PUMP SERVICE STUBS SHALL BE MARKED AT THE TIME OF CONSTRUCTION WITH A 2" X 4" WOOD POST NEATLY INSTALLED VERTICALLY WITH THE BOTTOM SET AT THE INVERT ELEVATION OF THE CAPPED STUB, A MINIMUM 3 FEET BURY AND A MINIMUM 4 FEET EXPOSED. THE TOP 1 FOOT OF THE POST SHALL BE NEATLY PAINTED GREEN.
   - f) A SUMP PUMP DISCHARGE ANTI-FREEZE DEVICE IRCR405.1 OR APPROVED EQUAL SHALL BE PROVIDED

PARKING LOT CONSTRUCTION

1. CONSTRUCTION MATERIALS AND METHODS FOR PARKING LOT CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION, AND VILLAGE CODE. IF A CONFLICT ARISES, THE MORE RESTRICTIVE REQUIREMENT WILL APPLY.
2. PRIOR TO THE CONSTRUCTION OF ANY PARKING LOT PAVEMENT, ALL OF THE MAJOR UNDERGROUND WORK SHALL BE COMPLETELY INSTALLED.
3. THE VILLAGE ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO THE POURING OF THE CURB AND GUTTER IN ORDER TO REVIEW THE AGGREGATE BASE AND STRING LINE/FORMWORK OF THE CURB AND GUTTER. THE CURB AND GUTTER WITHIN THE PARKING LOT SHALL BE MACHINE PLACED AND SHALL BE COMPLETED IN A MONOLITHIC INSTALLATION UNLESS PREVIOUSLY APPROVED BY THE VILLAGE ENGINEER.
4. DURING AND WEATHER PROTECTION OF ALL EXPOSED CONCRETE SURFACES SHALL BE IN ACCORDANCE WITH THE IDOT STANDARD SPECIFICATIONS, LATEST EDITION, INCLUDING ANY REVISIONS. NO HONEYCOMBING OF THE CONCRETE WILL BE ACCEPTED.
5. PROOFROLLS ARE REQUIRED ON THE SUB-GRADE AND AGGREGATE BASE, AS WELL AS BINDER COURSE WHEN REQUIRED BY THE VILLAGE ENGINEER. THE PROOF ROLL SHALL BE WITNESSED BY THE VILLAGE ENGINEER. THE VILLAGE ENGINEER SHALL BE PROVIDED A MINIMUM OF 48 HOURS ADVANCED NOTICE PRIOR TO THE PROOFROLL. EACH PROOFROLL SHALL BE AT THE COST OF THE CONTRACTOR AND SHALL BE TO THE SATISFACTION OF THE VILLAGE ENGINEER AS FOLLOWS:
   - a) A LOADED TRUCK PROVIDED BY THE CONTRACTOR SHALL BE DRIVEN OVER THE AREA TO BE TESTED AT A SPEED PATTERN AND NUMBER OF CYCLES TO BE DETERMINED BY THE VILLAGE ENGINEER. THE TEST TRUCK SHALL BE THE COMMON TRACTOR TRAILER TYPE WITH NO MORE THAN FIVE (5) AXLES WITH A TOTAL OF EIGHTEEN (18) WHEELS LOADED TO A NET WEIGHT OF NO LESS THAN TWENTY TWO (22) TONS. THE LOAD TICKET SHALL BE PROVIDED THE VILLAGE ENGINEER FOR RECORD.
   - b) ANY UNSTABLE OR DAMAGED SUBGRADE, AGGREGATE SUB-BASE, OR BINDER COURSE SHALL BE REMOVED AND REPLACED TO THE SATISFACTION OF THE VILLAGE ENGINEER AT NO COST TO THE VILLAGE.
   - c) THE VILLAGE ENGINEER IS RESPONSIBLE FOR INDICATING WHETHER THE PROOFROLL PASSES OR FAILS. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING HOW TO FIX ANY UNSATISFACTORY AREAS.
6. THE VILLAGE ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO THE START OF ANY PAVING.
7. FINAL PLACEMENT OF HOT MIX ASPHALT SURFACE COURSE SHALL BE DELAYED FOR A MINIMUM OF ONE FULL WINTER UNLESS OTHERWISE APPROVED BY THE VILLAGE AND VILLAGE ENGINEER. BEFORE THE PLACEMENT OF THE SURFACE COURSE, ALL UNDERGROUND UTILITY PUNCH LIST ITEMS FOR FINAL INSPECTION SHALL BE COMPLETED AND APPROVED. ALSO, THE BINDER COURSE PATCHES MUST BE COMPLETED AND THE CURB AND GUTTER REPAIRED AS REQUIRED BY THE VILLAGE ENGINEER. ALL PARKWAY IMPROVEMENTS SHALL BE COMPLETED PRIOR TO SURFACE COURSE TO AVOID UNNECESSARY MOVEMENTS ON THE SURFACE.
8. THE HOT MIX ASPHALT BINDER COURSE AND SURFACE COURSE MIXTURES SHALL BE LAID ON A SURFACE, WHICH IS DRY AND ONLY WHEN WEATHER CONDITIONS MEET ALL STANDARDS STATED IN THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. THE HOT MIX ASPHALT BINDER COURSE SHALL BE PLACED ONLY WHEN THE TEMPERATURE IN THE SHADE IS AT LEAST FORTY DEGREES FAHRENHEIT (40°F), WHEN THE TEMPERATURE IN THE SHADE FOR THE PREVIOUS TWENTY FOUR (24) HOURS IS AT LEAST THIRTY TWO DEGREES FAHRENHEIT (32°F) AND WHEN THE FORECAST IS FOR RISING TEMPERATURES. THE SURFACE COURSE SHALL BE PLACED ONLY WHEN THE TEMPERATURE IN THE SHADE IS AT LEAST FORTY-FIVE DEGREES FAHRENHEIT (45°F), WHEN THE TEMPERATURE IN THE SHADE FOR THE PREVIOUS TWENTY-FOUR (24) HOURS IS AT LEAST FORTY DEGREES FAHRENHEIT (40°F), AND WHEN THE FORECAST IS FOR RISING TEMPERATURES.
9. IMMEDIATELY PRIOR TO PLACING HOT MIX ASPHALT SURFACE COURSE, THE PAVEMENT SHALL BE THOROUGHLY CLEANED, FLUSHED (IF NEEDED) AND PRIMED WITH BITUMINOUS MATERIALS (SS-1) AT A RATE NOT TO EXCEED ONE-TENTH (0.1) GALLON PER SQUARE YARD. WHEN BITUMINOUS MATERIALS (SS-1) ARE APPLIED UNDER TRAFFIC CONDITIONS, SANDING AT THE APPROXIMATE RATE OF FOUR (4) POUNDS PER SQUARE YARD WILL BE REQUIRED.
10. ALL HOT MIX ASPHALT SHALL BE DELIVERED AND HANDLED SO THAT THE HOT MIX ASPHALT IMMEDIATELY BEHIND THE PAVER SCREEN IS AT OR ABOVE TWO HUNDRED SEVENTY DEGREES FAHRENHEIT (270°F). ALL ASPHALT DELIVERED TO THE PROJECT SHALL BE COVERED WHEN THE TEMPERATURE IS AT OR BELOW SEVENTY DEGREES FAHRENHEIT (70°F).
11. THE MIX DESIGN SHALL BE SUBMITTED THE VILLAGE ENGINEER 48 HOURS IN ADVANCE OF PAVING.
12. ALL TESTING SHALL BE PER IDOT SPECIFICATIONS. A CERTIFIED NUCLEAR DENSITY TECHNICIAN MUST BE ON SITE TO SET THE ASPHALT PAVEMENT ROLLING PATTERN AND CONFIRM COMPACTION DENSITIES. THE TECHNICIAN SHALL REVISE THE ROLLING PATTERN AS DEEMED NECESSARY. THE TECHNICIAN SHALL STOP THE PAVING OPERATION IF THE REQUIRED DENSITIES ARE NOT BEING MET. DENSITY TEST RESULTS SHALL BE SUBMITTED TO THE VILLAGE ENGINEER WITHIN ONE WEEK OF COMPLETION OF THE PAVING OPERATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR QUALITY CONTROL TESTING. THE VILLAGE RESERVES THE RIGHT TO PERFORM QUALITY ASSURANCE TESTING. THE VILLAGE ENGINEER RESERVES THE RIGHT TO STOP PAVING OPERATIONS IF THE CONTRACTOR DOES NOT HAVE A QUALIFIED TESTER ON SITE AT THE START OF THE PAVING OPERATIONS.

STREET PAVING AND CONSTRUCTION

1. ALL STREEt pavements shall be constructed in accordance with the design criteria for the various classes as established in the "Bureau of Design and Environment Manual" and "Highway Standards" of the State of Illinois Department of Transportation, latest edition. Construction materials and methods shall meet the requirements of the "Standard Specifications for Road and Bridge Construction", latest edition. The thickness of the pavements for Major Collectors and Arterials shall be determined in accordance with the current Illinois Department of Transportation "Manual for Structural Design of Portland Cement Concrete Pavement" and the "Manual of Instructions For The Structural Design Of Bituminous Concrete Pavements", or as required by the jurisdictional authority.
2. Prior to the construction of any roadway pavement, all of the major underground work shall be completely installed in place.
3. The Village Engineer shall be notified 48 hours prior to the pouring of the curb and gutter in order to review the aggregate base and string line/formwork of the curb and gutter. The curb and gutter within the parking lot shall be machine placed and shall be completed in a monolithic installation unless previously approved by the Village Engineer.
4. All concrete shall be protected when required due to weather conditions per the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition, including any revisions.
5. Proofrolls are required on the sub-grade, aggregate base, hot mix asphalt base, and the binder course, and shall be witnessed by the Village Engineer. The Village Engineer shall be provided a minimum of 48 hours advanced notice prior to the proofroll. Each proofroll shall be at the cost of the Contractor and shall be to the satisfaction of the Village Engineer as follows: a. A loaded truck provided by the Contractor shall be driven over the area to be tested at a speed pattern and number of cycles to be determined by the Village Engineer. The test truck shall be the common tractor trailer type with no more than five (5) axles with a total of eighteen (18) wheels loaded to a net weight of no less than twenty two (22) tons. The load ticket shall be provided the VillagE Engineer for record. b. Any unstable or damaged subgrade, aggregate sub-base, or binder course shall be removed and replaced to the satisfaction of the Village Engineer at no cost to the Village. c. The Village Engineer is responsible for indicating whether the proofroll passes or fails. The Contractor is responsible for determining how to fix any unsatisfactory areas.
6. The Village Engineer shall be notified 48 hours prior to the start of any paving.
7. Final placement of hot mix asphalt surface course shall be delayed for a minimum of one full winter after binder installation and 70% of the adjacent, private improvements are in place unless otherwise approved by the Village and Village Engineer. The maximum delay for surface course is three (3) years after installation of the binder, unless otherwise approved by the Village Board under the recommendation of the Village Engineer. Before the placement of the surface course, all underground utility punch list items for final inspection shall be completed and approved. Also, the binder course patches must be completed, and the curb and gutter repaired as required by the Village Engineer. The parkway landscaping and restoration must be completed to avoid having equipment marring the surface.
8. On all streets where new pavements meet existing hot mix asphalt or Portland cement concrete pavements, a butt joint with a transitional length of not less than ten feet (10') will be required. The subgrade shall be graded parallel to the final surface grade and as such shall drain to the curb lane and to the inlets and catch basins. Positive drainage must be accomplished on the compacted sub-grade or the placement of base material will not be allowed. Certification by the Village Engineer verifying proper subgrade drainage will be required prior to any additional roadwork.
9. The hot mix asphalt base course, leveling binder, binder course, and surface course mixtures shall be laid on a surface, which is dry and only when weather conditions meet all standards stated in the IDOT Standard Specifications for Road and Bridge Construction. The hot mix asphalt base course, leveling binder and binder courses shall be placed only when the temperature in the shade is at least forty degrees Fahrenheit (40°F), when the temperature in the shade for the previous twenty four (24) hours is at least thirty two degrees Fahrenheit (32°F) and when the forecast is for rising temperatures. The surface course shall be placed only when the temperature in the shade is at least forty-five degrees Fahrenheit (45°F), when the temperature in the shade for the previous twenty four (24) hours is at least forty degrees Fahrenheit (40°F), and when the forecast is for rising temperatures.
10. After any binder course surface variations have been corrected to the satisfaction of the Village Engineer and immediately prior to placing hot mix asphalt surface course, the pavement shall be thoroughly cleaned, flushed and primed with bituminous materials (SS-1) at a rate not to exceed one-tenth (0.1) gallon per square yard. When bituminous materials (SS-1) are applied under traffic conditions, sanding at the approximate rate of four (4) pounds per square yard will be required.
11. All hot mix asphalt shall be delivered and handled so that the hot mix asphalt immediately behind the paver screen is at or above two hundred seventy degrees Fahrenheit (270°F). All asphalt delivered to the project shall be covered when the temperature is at or below seventy degrees Fahrenheit (70°F).
12. The mix design shall be submitted the Village Engineer 48 hours in advance of paving.
13. All testing for both concrete placement and hot mix asphalt paving shall be per IDOT specifications. The asphalt laying pattern must be approved by the Village Engineer or his representative in order to minimize transverse joints. A certified nuclear density technician must be on site to set the asphalt pavement rolling pattern and confirm compaction densities. The technician shall revise the rolling pattern as deemed necessary. The technician shall stop the paving operation if the required densities are not being met. Density test results will be submitted to the Village Engineer within one week of completion of the paving operation. The Contractor shall be responsible for Quality Control testing. The Village shall be responsible for Quality Assurance testing. Therefore, at the time of asphalt paving, a representative from the Contractor's testing agency and a representative from the Village's testing agency shall be present at the asphalt plant prior to paving and on site at the start of paving. The Village Engineer reserves the right to stop paving and/or concrete operations if the Contractor does not have a qualified tester on site at the start of the paving and/or concrete operations.
14. All paving shall be done with paving machines utilizing electronic grade control and A string line shoe on wheels of a minimum length of fifteen feet (15').
15. All rollers shall be per IDOT specifications.
16. All hot mix asphalt plants being used by the contractor shall be approved by IDOT. In addition, all paving contractors performing work within the right of way shall furnish an IDOT Certificate of Eligibility to the Village prior to the start of paving.
17. Load tickets shall be furnished to the Village Engineer at the time of paving.
18. The nose of all islands in the roadway shall be tapered per IDOT standards as to not hinder snowplow operations.
19. The Village Engineer may approve lime stabilization, when soils are compatible as determined by a geotechnical engineer. The lime shall be mixed to a minimum depth of 16 inches and meet the Illinois Department of Transportation's guidelines for Lime Stabilized Soil Mixture as outlined in the "Standard Specifications for Road and Bridge Construction", latest edition. Drainage Fabric will not be required if Lime Stabilization, in accordance with IDOT Standard Specifications, is utilized for soil sub-base modification.

STREETLIGHT CONSTRUCTION

1. POWER SUPPLY CONNECTION: CONNECTIONS TO POWER SUPPLY SHALL BE MADE BY COMMONWEALTH EDISON OR THE VILLAGE'S APPROVED ELECTRICAL PROVIDER.
2. CONDUIT: ALL DRIVEWAYS, STREET, AND SIDEWALK CROSSOVERS SHALL HAVE A MINIMUM OF ONE AND ONE-HALF INCH (1 1/2") GALVANIZED RIGID STEEL CONDUIT USED AS RACEWAYS FOR UNDERGROUND CABLE. HEAVY DUTY PVC OR A85 CONDUIT WILL BE ALLOWED IF IT IS ENCASED IN A THREE INCH (3") MINIMUM CONCRETE COLLAR. ALL CONDUITS AND RACEWAYS SHALL BE MARKED ON THE AS-BUILT DRAWINGS.
3. UNDERGROUND CABLE: ALL TRENCHED UNDERGROUND CABLE SHALL BE PLACED IN UNIT DUCT AND BURIED AT LEAST THIRTY-SIX INCHES (36") BELOW THE NORMAL FINISHED GRADE. A RED PLASTIC MARKING TAPE SHALL BE PLACED IN THE TRENCH FIFTEEN INCHES (15") BELOW FINISHED GRADE WHERE THE UNIT DUCT IS TRENCHED. ALL CONDUITS AND DUCTS SHALL BE MARKED ON THE AS-BUILT DRAWINGS.
4. SPLICES: ALL CABLE ON THE UNDERGROUND CABLE SECTION SHALL BE CONTINUOUS AND NO SPLICING SHALL BE MADE UNDERGROUND. ALL NECESSARY SPLICES SHALL BE MADE ABOVE GROUND LEVEL.
5. UNDERGROUND CABLE/UNIT DUCT LOCATION: UNDERGROUND CABLE SHALL BE INSTALLED IN A TRENCH NOT MORE THAN TWO FEET (2') FROM THE "BACK" EDGE OF THE CURB EXCEPT THAT IN NO CASE SHALL THE UNDERGROUND CABLE BE INSTALLED UNDER A SIDEWALK.
6. FUSING: ALL UNGROUNDED FEEDERS SHALL BE FUSED AT OR BELOW THEIR RATED CAPACITY. EACH STANDARD SHALL CONTAIN PROPER FUSING IN SERIES WITH EACH UNGROUNDED CONDUCTOR TO PROTECT THE LUMINAIRE LOCATED ON THAT POLE. STREETLIGHTS WITH MULTIPLE LUMINAIRES SHALL HAVE SEPARATE FUSES FOR EACH LUMINAIRE.
7. GUARANTEE: THE DEVELOPER SHALL SUPPLY TO THE VILLAGE AN INVENTORY EQUAL TO AT LEAST TEN PERCENT (10%) OF THE NUMBER OF POLES, LUMINAIRES, PHOTOCELLS, BALLASTS, ETC., INSTALLED ALONG PUBLIC STREETS AND FOR PUBLIC PARKING LOTS FOR THE SUBDIVISION. THIS INVENTORY SHALL BE USED TO REPLACE LIGHTING SYSTEM COMPONENTS THAT FAIL OR ARE DAMAGED AFTER EXPIRATION OF THE GUARANTEE PERIOD. THE INVENTORY SHALL BE DELIVERED TO THE VILLAGE OF SUGAR GROVE PUBLIC WORKS AT THE START OF THE LIGHTING CONSTRUCTION.
8. NO ABOVE GROUND STRUCTURES UNLESS APPROVED BY THE VILLAGE ENGINEER.
9. MAINTAIN A MINIMUM OF 5' HORIZONTAL SEPARATION AND 2' VERTICAL SEPARATION WITH VILLAGE UTILITIES. ADDITIONAL SEPARATION MAY BE REQUIRED BY THE VILLAGE ENGINEER DEPENDING ON THE DEPTH OF THE UTILITIES.

ADDITIONAL NOTES

NOTE: ALL VILLAGE OF SUGAR GROVE NOTES AND STANDARDS TO SUPERCEDE CONFLICTING NOTES ON THIS SHEET.

ALL PUBLIC AND PRIVATE STORM SEWER, SANITARY, AND WATER MAIN SHALL BE SPECIFIED, INSTALLED, AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS IDENTIFIED PER THE VILLAGE OF SUGAR GROVE DEVELOPMENT CODE AND STANDARD DETAILS AS APPLICABLE.

NOTE: REFERENCES TO THE WORD "ENGINEER" REFER TO KIMLEY-HORN AND ASSOCIATES, INC.

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

Kimley»Horn

570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847-260-7804
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

SUGAR GROVE STANDARD NOTES

THE GROVE - AREA 1 (SINGLE FAMILY)
SUGAR GROVE, IL 60554

ORIGINAL ISSUE: 1/31/2025
KHA PROJECT NO. 168740009
SHEET NUMBER
C0.2

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C0.1 GENERAL NOTES.dwg C0.2 Jul 01, 2025 9:27am by: Joe.Hannah
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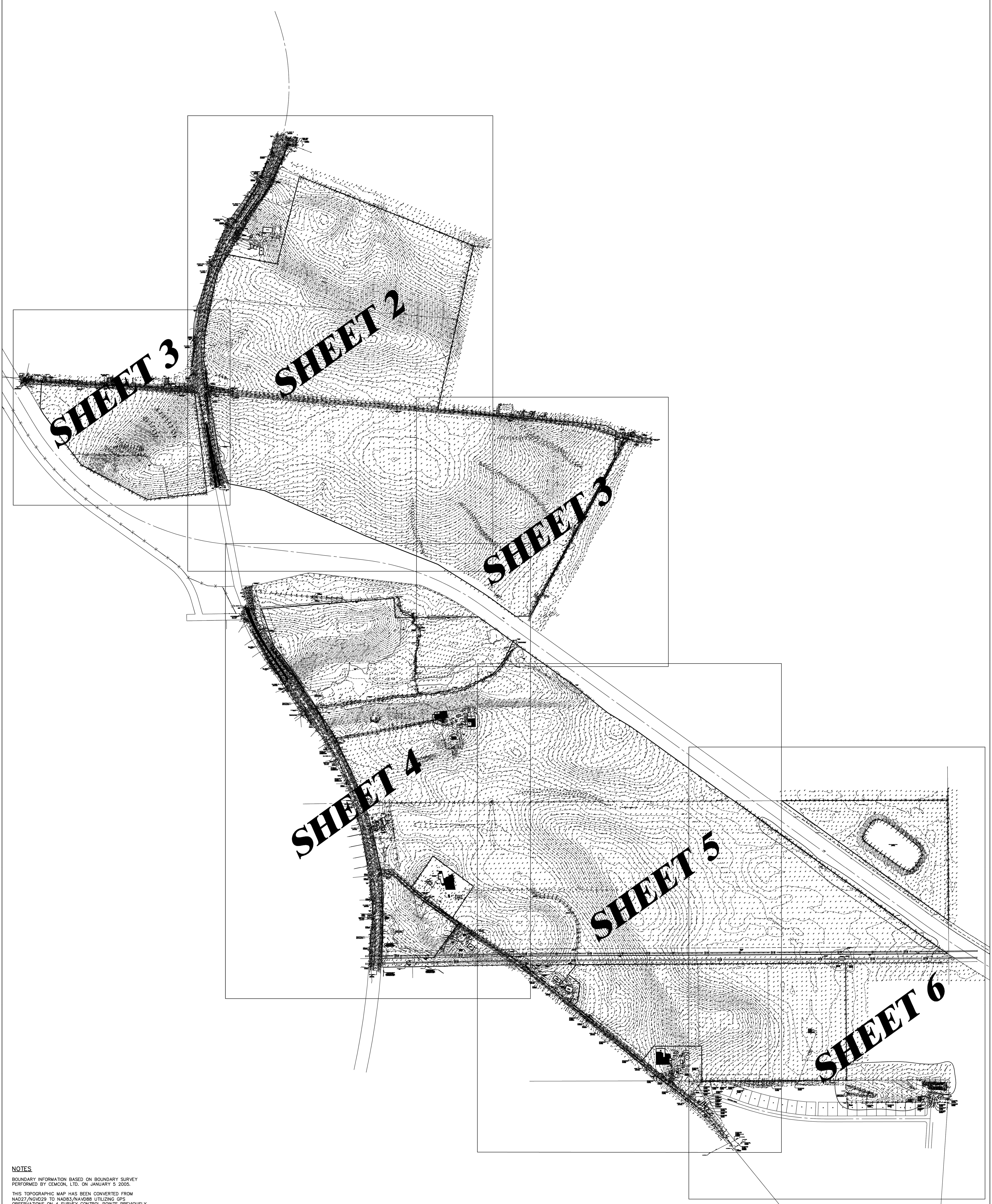
TOPOGRAPHIC MAP

SHEET 1 OF 6

N

NOT TO SCALE



NOTES

BOUNDARY INFORMATION BASED ON BOUNDARY SURVEY PERFORMED BY CEMCON, LTD. ON JANUARY 5 2005.

THIS TOPOGRAPHIC MAP HAS BEEN CONVERTED FROM NAD27/NGVD29 TO NAD83/NAVD88 UTILIZING GPS OBSERVATIONS ON 4 SURVEY CONTROL POINTS PREVIOUSLY ESTABLISHED AND LOCATED IN VARIOUS AREAS THROUGH OUT THE PROPERTY ASSEMBLAGE. THE CONVERSION EQUATION IS BASED ON AN AVERAGE DEVIATION OF SAID POINTS OF THE TWO DATUM'S. SEVERAL OTHER CONTROL POINTS AND OTHER FEATURES CONTAINED IN THIS MAP WERE VERIFIED UTILIZING THE CONVERTED DATUM CONVERSION, WITH THE VERIFICATION DEVIATION BEING ACCEPTABLE FOR INDUSTRY STANDARDS. THE CONVERSION EQUATION FOR NORTHING'S, EASTING'S AND VERTICAL ARE AS FOLLOWS:

NORTH = + 43.937 (NAD27 TO NAD 83)
EAST = + 484,229.784 (NAD27 TO NAD 83)
ELEVATION = − 0.3128 (NGVD29 TO NAVD 88)

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND DRAWINGS IN SURVEYOR'S POSSESSION. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES STATE THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

BENCHMARKS

ELEVATION REFERENCE MARK

KANE COUNTY BM 2−10A
A BOX CUT IN THE NORTHERLY CONCRETE HEADWALL LOCATED AT THE NORTHEAST CORNER OF U.S. ROUTE 47 AND MERILL ROAD.
ELEV.=710.33 NAVD88 (710.64 NGVD29)

PROJECT ELEVATION REFERENCE MARKS

TBM1−RR SPIKE LOCATED ON THE NORTH FACE OF A UTILITY POLE LOCATED AT THE SOUTHWEST CORNER OF OF U.S. ROUTE 47 AND OAKLEAF DRIVE.
ELEV.=757.07 NAVD88 (757.38 NGVD29)

TBM2−RR SPIKE LOCATED ON THE NORTH FACE OF THE 3RD UTILITY POLE THAT IS EAST OF U.S. ROUTE 47 AND SAID UTILITY POLE IS ON THE SOUTH SIDE OF SEAVEY ROAD.
ELEV.=743.97 NAVD88 (744.28 NGVD29)

TBM3−RR SPIKE LOCATED ON THE WEST FACE OF THE 3RD UTILITY POLE SOUTH OF MERILL ROAD AND BEING ON THE EAST SIDE OF U.S. ROUTE 47.
ELEV.=709.84 NAVD88 (710.15 NGVD29)

TBM4−RR SPIKE LOCATED ON THE WEST FACE OF THE 8TH UTILITY POLE NORTH OF MERILL ROAD AND BEING ON THE EAST SIDE OF U.S. ROUTE 47.
ELEV.=720.88 NAVD88 (721.19 NGVD29)

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PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100 Aurora, Illinois
60502−9675 PH: 630.862.2100 FAX: 630.862.2199
E−Mail: cadd@cemcon.com Website: www.cemcon.com

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REVISED: 1−03−19\AJB CONVERSION TO NAVD88 AND SPORADIC AREAS UPDATED AS DIRECTED BY CLIENT CONSULTANT
REVISED: 10−08−19/LAL ADD WETLAND DELINEATION

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TOPOGRAPHIC MAP

SHEET 5 OF 6

N
100 50 0 100
SCALE: 1 INCH = 100 FEET
MERRILL ROAD
WAKEFIELD AVENUE
Storm Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(712.50)
Inv.=(708.00) N (6" Opening)
Inv.=(707.30) S
Inv.=(708.50) E
Inv.=(707.45) W
Inv.=(708.99)
12" RCP
Inv.=(710.88)
Catch Basin 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(716.71)
Inv.=(716.09)
Storm Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(713.54)
Inv.=(709.24) N
Inv.=(710.54) S
Inv.=(709.19) W
Inv.=(710.80)
Inv.=(709.91)
15" CMP
Inv.=(709.91) S
Inv.=(710.68) N

LINE/SYMBOL/ABBREVIATION LEGEND

—	BOUNDARY LIMITS
—	ADJACENT PROPERTY OR R.O.W. LINE
— OHW —	OVERHEAD WIRES
— G —	UNDERGROUND GAS LINE
— STM —	UNDERGROUND STORM LINE
— SAN —	UNDERGROUND SANITARY LINE
— W —	UNDERGROUND WATER LINE
— E —	UNDERGROUND ELECTRIC LINE
— P —	UNDERGROUND PHONE LINE
— FO —	UNDERGROUND FIBER OPTIC LINE
— DT —	UNDERGROUND DRAIN TILE
— X —	FENCE
⌒⌒⌒	BRUSH/TREE LINE
Ⓐ	ANTENNA
Ⓑ	BOLLARD
Ⓒ	CABLE TV PEDESTAL
○	CATCH BASIN
DT	DRAIN TILE
⊠	HAND HOLE
EJB	ELECTRIC JUNCTION BOX
Ⓔ	ELECTRIC MANHOLE
EM	ELECTRIC METER
Ⓔ	ELECTRIC PEDESTAL
T	ELECTRIC TRANSFORMER
▻	FLARED END SECTION
▷	FIBER OPTIC MARKER POST
Ⓕ	FIBER OPTIC MANHOLE
♉	FIRE HYDRANT
GB	GAS CONTROL BOX
Ⓖ	GAS MANHOLE
GM	GAS METER
GR	GAS REGULATOR
GV	GAS VALVE
▷	GAS MARKER POST
GSTP	GAS STAND PIPE
□	INLET
⌖	LIGHT STANDARD
MB	MAILBOX
○	CLEANOUT
◎	SANITARY MANHOLE
◎	STORM MANHOLE
SD	SATELLITE DISH
ST	SEPTIC TANK
PT	PROPANE TANK
FT	FUEL TANK
UC²	UTILITY PEDESTAL CLUSTER W/NUMBER
⫞	SIGN
PJB	TELEPHONE JUNCTION BOX
Ⓟ	TELEPHONE MANHOLE
Ⓟ	TELEPHONE PEDESTAL
□	UTILITY POLE
— —○	GUY WIRE
◐	GUY POLE
⊕	WATER VALVE
⊕	VALVE VAULT
Ⓦ	WELL HEAD
▨	CONCRETE SURFACE
R.O.W.	RIGHT OF WAY
B-B	BACK-TO-BACK
E-E	EDGE-TO-EDGE
✳	CONIFEROUS TREE w/TRUNK DIAM.
12"	DECIDUOUS TREE w/TRUNK DIAM.
G=(XXX.X)	EDGE OF GRAVEL ELEVATION
T/W=(XXX.XX)	TOP OF WALL ELEVATION
E/P=(XXX.XX)	EDGE OF PAVEMENT ELEVATION
E/W=(XXX.X)	EDGE OF WATER ELEVATION
T/C=(XXX.XX)	TOP OF CURB ELEVATION
F/F=(XXX.XX)	FINISHED FLOOR ELEVATION
T/F=(XXX.XX)	TOP OF FOUNDATION ELEVATION
(XXX.XX)	HARD SURFACE ELEVATION
XXX.X	GROUND ELEVATION

PREPARED BY:

CIVIL ENVIRONMENTAL MUNICIPAL EST. 1972
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100 Aurora, Illinois
60502-9675 PH: 630.862.2100 FAX: 630.862.2199
E-Mail: cadd@cemcon.com Website: www.cemcon.com

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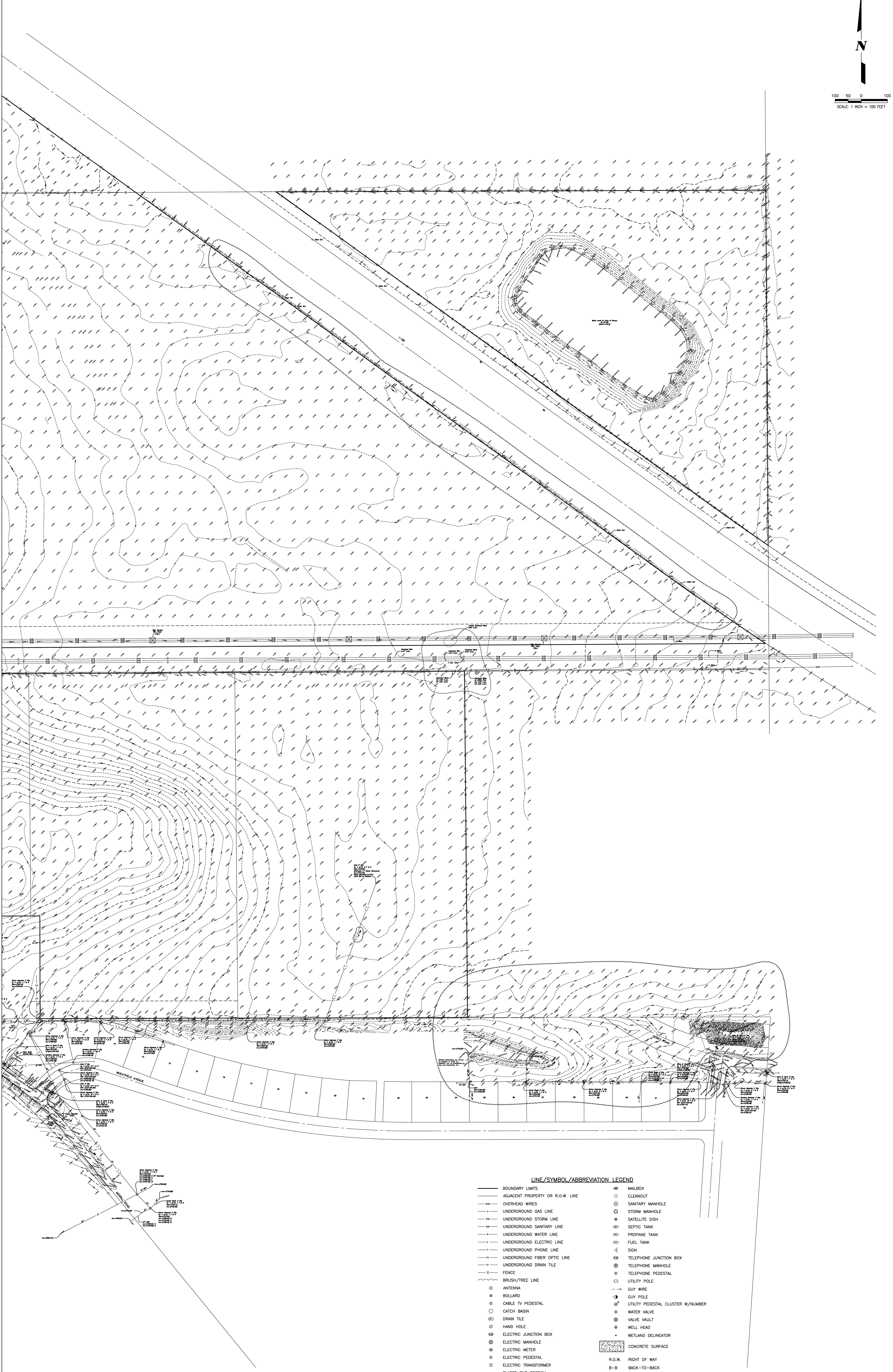
TOPOGRAPHIC MAP

SHEET 6 OF 6


N
100 50 0 100
SCALE: 1 INCH = 100 FEET
I-88
Clean Out
WHEATFIELD AVENUE
MERRILL ROAD
72
73
74
75
76
Storm Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(723.23)
Inv.=(719.73)
Storm Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(721.60)
Inv.=(709.45)
Storm Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(724.82)
Inv.=(717.92)
Sanitary Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(724.99)
Inv.=(709.19)
Valve & Vault 5' Dia.
Ty. A w/Ty. 1 F & G
Rim=(725.47)
T/Pipe=(718.97)
Storm Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(723.91)
Inv.=(707.96)
Storm Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(719.49)
Inv.=(716.44)
Storm Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(712.50)
Inv.=(708.00) N (6" Opening)
Inv.=(707.30) S
Inv.=(708.50) E
Inv.=(707.45) W
Inv.=(708.99)
Inv.=(710.88)
Catch Basin 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(716.71)
Inv.=(716.09)
Storm Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(713.54)
Inv.=(709.24) N
Inv.=(710.80)
Inv.=(709.91)
12" RCP
12"
15"
DT
OHW

LINE/SYMBOL/ABBREVIATION LEGEND

━━━	BOUNDARY LIMITS	MB	MAILBOX
———	ADJACENT PROPERTY OR R.O.W. LINE	⬡	CLEANOUT
— OHW —	OVERHEAD WIRES	◎	SANITARY MANHOLE
— G —	UNDERGROUND GAS LINE	◎	STORM MANHOLE
— STM —	UNDERGROUND STORM LINE	SD	SATELLITE DISH
— SAN —	UNDERGROUND SANITARY LINE	ST	SEPTIC TANK
— W —	UNDERGROUND WATER LINE	PT	PROPANE TANK
— E —	UNDERGROUND ELECTRIC LINE	FT	FUEL TANK
— P —	UNDERGROUND PHONE LINE	ᑫ	SIGN
— FO —	UNDERGROUND FIBER OPTIC LINE	PJB	TELEPHONE JUNCTION BOX
— DT —	UNDERGROUND DRAIN TILE	Ⓟ	TELEPHONE MANHOLE
—X—	FENCE	Ⓟ	TELEPHONE PEDESTAL
︵︵︵	BRUSH/TREE LINE	⊡	UTILITY POLE
Ⓐ	ANTENNA	— —o	GUY WIRE
Ⓑ	BOLLARD	◑	GUY POLE
©	CABLE TV PEDESTAL	UC²	UTILITY PEDESTAL CLUSTER W/NUMBER
○	CATCH BASIN	⊕	WATER VALVE
DT	DRAIN TILE	⊕	VALVE VAULT
⊘	HAND HOLE	Ⓦ	WELL HEAD
EJB	ELECTRIC JUNCTION BOX	•	WETLAND DELINEATOR
Ⓔ	ELECTRIC MANHOLE	▨	CONCRETE SURFACE
EM	ELECTRIC METER	R.O.W.	RIGHT OF WAY
Ⓔ	ELECTRIC PEDESTAL	B–B	BACK–TO–BACK
T	ELECTRIC TRANSFORMER	E–E	EDGE–TO–EDGE
▻	FLARED END SECTION	✳	CONIFEROUS TREE w/TRUNK DIAM.
▷	FIBER OPTIC MARKER POST	12"	DECIDUOUS TREE w/TRUNK DIAM.
Ⓕ	FIBER OPTIC MANHOLE	G=(XXX.X)	EDGE OF GRAVEL ELEVATION
♉	FIRE HYDRANT	T/W=(XXX.XX)	TOP OF WALL ELEVATION
GB	GAS CONTROL BOX	E/P=(XXX.XX)	EDGE OF PAVEMENT ELEVATION
Ⓖ	GAS MANHOLE	E/W=(XXX.X)	EDGE OF WATER ELEVATION
GM	GAS METER	T/C=(XXX.XX)	TOP OF CURB ELEVATION
GR	GAS REGULATOR	F/F=(XXX.XX)	FINISHED FLOOR ELEVATION
GV	GAS VALVE	T/F=(XXX.XX)	TOP OF FOUNDATION ELEVATION
G▷	GAS MARKER POST	(XXX.XX)	HARD SURFACE ELEVATION
GSTP	GAS STAND PIPE	XXX.X	GROUND ELEVATION
□	INLET		
⌖	LIGHT STANDARD		

PREPARED BY:

CEMCON, Ltd.

Consulting Engineers, Land Surveyors & Planners
2280 White Oak Circle, Suite 100 Aurora, Illinois
60502–9675 PH: 630.862.2100 FAX: 630.862.2199
E–Mail: cadd@cemcon.com Website: www.cemcon.com

DISC NO.: 456210 FILE NAME: TOPO CONVERTED
DRAWN BY: EEZ/AJB FLD. BK. / PG. NO.: B–15
COMPLETION DATE: 6–16–06 JOB NO.: 456.210
REVISED: 1–12–07\EEZ ADD'L AREA AROUND THE POND
REVISED: 1–03–19\AJB CONVERSION TO NAVD88 AND SPORADIC AREAS UPDATED AS DIRECTED BY CLIENT CONSULTANT
REVISED: 10–08–19/LAL ADD WETLAND DELINEATION

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PLOT FILE CREATED: 10/8/2019 BY: LESLIE LUNDBERG DRAWING PATH: P:\456210\DWG\SURVEY\DIGITAL\TRANSMIT\2019-10-08 TO HEY AND ASSOC\2019-10-08 TOPO CONVERTED.DWG

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C1.0 EXISTING CONDITIONS & DEMOLITION PLAN.dwg C1.0 Jul 01, 2025 9:28am by: Joe.Hannah

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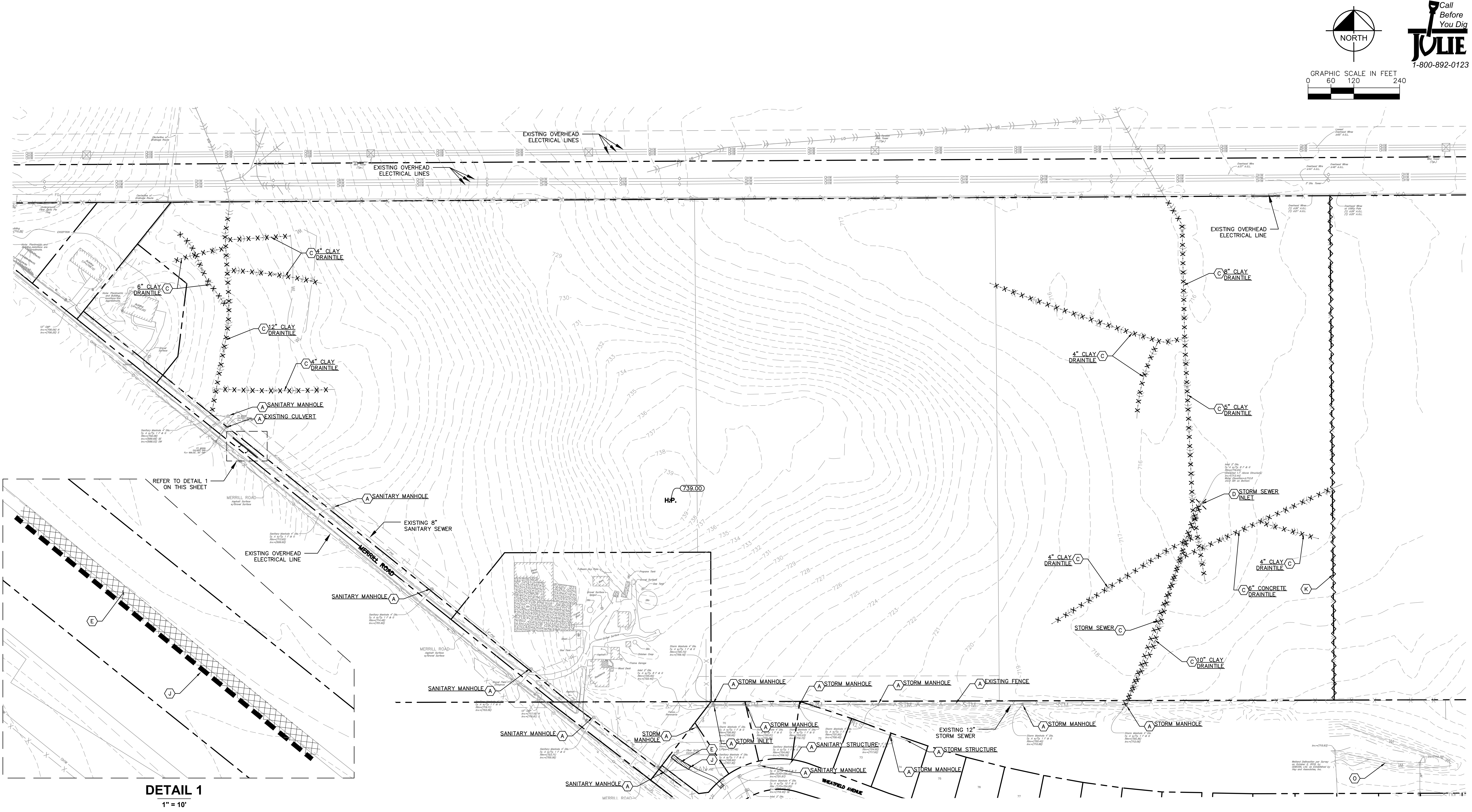
NORTH
GRAPHIC SCALE IN FEET
0 60 120 240
EXISTING OVERHEAD ELECTRICAL LINES
EXISTING OVERHEAD ELECTRICAL LINES
EXISTING OVERHEAD ELECTRICAL LINE
C 4" CLAY DRAINTILE
C 6" CLAY DRAINTILE
C 12" CLAY DRAINTILE
C 4" CLAY DRAINTILE
A SANITARY MANHOLE
A EXISTING CULVERT
REFER TO DETAIL 1 ON THIS SHEET
MERRILL ROAD
A SANITARY MANHOLE
EXISTING 8" SANITARY SEWER
EXISTING OVERHEAD ELECTRICAL LINE
MERRILL ROAD
A SANITARY MANHOLE
A SANITARY MANHOLE
A SANITARY MANHOLE
A SANITARY MANHOLE
739.00
H.P.
729
730
731
732
733
734
735
736
737
738
739
C 8" CLAY DRAINTILE
C 4" CLAY DRAINTILE
C 6" CLAY DRAINTILE
D STORM SEWER INLET
C 4" CLAY DRAINTILE
C 4" CLAY DRAINTILE
C 6" CONCRETE DRAINTILE
K
C STORM SEWER
C 10" CLAY DRAINTILE
A STORM MANHOLE
A STORM MANHOLE
A STORM MANHOLE
A EXISTING FENCE
A STORM MANHOLE
A STORM MANHOLE
EXISTING 12" STORM SEWER
A STORM MANHOLE
A STORM MANHOLE
A STORM INLET
A SANITARY STRUCTURE
A STORM STRUCTURE
A STORM MANHOLE
A STORM MANHOLE
A SANITARY MANHOLE
WHEATFIELD AVENUE
MERRILL ROAD
E
J
O
E
J

DETAIL 1

1" = 10'

DEMOLITION NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF THE EXISTING STRUCTURES, RELATED UTILITIES, PAVING, AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED.
2. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.
3. THE GENERAL CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT. CONTRACTOR SHALL NOT DEMOLISH ANYTHING OUTSIDE THE OWNERS LEASE/PROPERTY LINE UNLESS SPECIFICALLY MENTIONED ON THIS SHEET.
4. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
5. IF DEMOLITION OR CONSTRUCTION ON SITE WILL INTERFERE WITH THE ADJACENT PROPERTY OWNER'S TRAFFIC FLOW, THE CONTRACTOR SHALL COORDINATE WITH ADJACENT PROPERTY OWNER, TO MINIMIZE THE IMPACT ON TRAFFIC FLOW. TEMPORARY RE-ROUTING OF TRAFFIC IS TO BE ACCOMPLISHED BY USING IDOT APPROVED TRAFFIC BARRICADES, BARRELS, AND/OR CONES. TEMPORARY SIGNAGE AND FLAGMEN MAY BE ALSO NECESSARY.
6. QUANTITIES DEPICTED ON THIS SHEET SHALL SERVE AS A GUIDE ONLY. CONTRACTOR TO VERIFY ALL DEMOLITION QUANTITIES.
7. REFER TO GEOTECHNICAL REPORT PROVIDED BY OTHERS FOR ALL SUBSURFACE INFORMATION.
8. CONTRACTOR SHALL BEGIN CONSTRUCTION OF ANY LIGHT POLE BASES FOR RELOCATED LIGHT FIXTURES AND RELOCATION OF ELECTRICAL SYSTEM AS SOON AS DEMOLITION BEGINS. CONTRACTOR SHALL BE AWARE THAT INTERRUPTION OF POWER TO ANY LIGHT POLES OR SIGNS SHALL NOT EXCEED 24 HOURS.
9. EROSION CONTROL MUST BE ESTABLISHED PRIOR TO ANY WORK ON SITE INCLUDING DEMOLITION.
10. THE EXTENT OF SITE DEMOLITION WORK IS AS SHOWN ON THE CONTRACT DOCUMENTS AND AS SPECIFIED HEREIN.
11. CONTRACTOR MUST RECEIVE APPROVAL FROM CIVIL ENGINEER AND GEOTECHNICAL ENGINEER FOR THE MATERIAL TYPE AND USE IF CONTRACTOR DESIRES TO REUSE DEMOLISHED SITE PAVEMENT AS STRUCTURAL FILL.
12. EXISTING UTILITIES, WHICH DO NOT SERVICE STRUCTURES BEING DEMOLISHED, ARE TO BE KEPT IN SERVICE AND PROTECTED AGAINST DAMAGE DURING DEMOLITION OPERATIONS. CONTRACTOR SHALL ARRANGE FOR SHUT-OFF OF UTILITIES SERVING STRUCTURES TO BE DEMOLISHED. CONTRACTOR IS RESPONSIBLE FOR TURNING OFF, DISCONNECTING, AND SEALING INDICATED UTILITIES BEFORE STARTING DEMOLITION OPERATIONS. EXISTING UTILITIES TO BE ABANDONED ARE TO BE CAPPED AT BOTH ENDS AND FILLED WITH FA-1 OR APPROVED EQUAL. ALL UNDERGROUND UTILITIES TO BE REMOVED ARE TO BE BACKFILLED WITH ENGINEERED FILL OR SELECT EXCAVATED MATERIAL, AS APPROVED BY THE GEOTECHNICAL ENGINEER, TO 95% OF MODIFIED PROCTOR DENSITY WITHIN PAVED AREAS AND TO 90% OF MODIFIED PROCTOR DENSITY FOR GREEN SPACE AREAS, IN ACCORDANCE WITH THE EARTHWORK SPECIFICATIONS. ALL PRIVATE UTILITIES (ELECTRIC, CABLE, TELEPHONE, FIBER OPTIC, GAS) SHALL BE REMOVED AND RELOCATED PER THE UTILITY OWNER AND THE LOCAL MUNICIPALITY'S REQUIREMENTS.
13. UNDERGROUND UTILITIES SHOWN ARE BASED ON ATLASES AND AVAILABLE INFORMATION PRESENTED AT THE TIME OF SURVEY. CONTRACTOR SHOULD CALL "JULIE" (1-800-892-0123) TO COORDINATE FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES BEFORE ORDERING MATERIALS OR COMMENCING CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY. CONTRACTOR SHALL LOCATE AND PROTECT EXISTING UNDERGROUND AND OVERHEAD UTILITIES DURING CONSTRUCTION. UTILITY PROTECTION SHALL BE COORDINATED WITH THE RESPECTIVE UTILITY OWNER AND AS DIRECTED BY THE GOVERNING MUNICIPALITY. DAMAGED CABLES/CONDUITS SHALL BE REPLACED IMMEDIATELY. ALL EXISTING STRUCTURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PROCESS. ALL DAMAGED STRUCTURES SHALL BE REPLACED IN-KIND AND THEIR REPLACEMENT COST SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. PROPER NOTIFICATION TO THE OWNERS OF THE EXISTING UTILITIES SHALL BE MADE AT LEAST 48 HOURS BEFORE CONSTRUCTION COMMENCES.
14. USE WATER SPRINKLING, TEMPORARY ENCLOSURES, AND OTHER SUITABLE METHODS TO LIMIT DUST AND DIRT RISING AND SCATTERING IN THE AIR TO THE LOWEST LEVEL. COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION. SEE EROSION CONTROL SHEETS FOR FURTHER EROSION CONTROL REQUIREMENTS.
15. COMPLETELY FILL BELOW-GRADE AREAS AND VOIDS RESULTING FROM DEMOLITION OF STRUCTURES TO THE FINAL LINES AND GRADES SHOWN ON THE CONTRACT DOCUMENTS. BACKFILL MATERIAL SHALL BE IDOT APPROVED CRUSHED LIMESTONE (CA-6) OR APPROVED EQUAL. USE SATISFACTORY SOIL MATERIALS CONSISTING OF STONE, GRAVEL AND SAND, FREE FROM DEBRIS, TRASH, FROZEN MATERIALS, ROOTS AND OTHER ORGANIC MATTER. PRIOR TO PLACEMENT OF FILL MATERIALS, ENSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROST, FROZEN MATERIAL, TRASH AND DEBRIS. PLACE FILL MATERIALS IN HORIZONTAL LAYERS NOT EXCEEDING 9" IN LOOSE DEPTH. COMPACT EACH LAYER AT OPTIMUM MOISTURE CONTENT OF FILL MATERIAL TO 95% OF MODIFIED PROCTOR DENSITY UNLESS SUBSEQUENT EXCAVATION FOR NEW WORK IS REQUIRED.

DEMOLITION LEGEND

A		ITEM TO REMAIN, PROTECT DURING CONSTRUCTION
B	· ////	CURB REMOVAL
C	· X · X ·	UTILITY REMOVAL
D	╳	ITEM TO BE REMOVED
E	▩	FULL-DEPTH ASPHALT PAVEMENT REMOVAL
F	▧	CONCRETE REMOVAL
G	▭	BUILDING REMOVAL
H	▒	ASPHALT 1.5" MILL
I	▨	REMOVE & REPLACE IN-KIND
J	▬ ▬ ▬	SAWCUT LINE
K	∧∨∧	FENCE REMOVAL
L	· ⊗ ·	ABANDON UTILITY IN PLACE
M		TREE PROTECTION FENCING
N	—))— —	EXISTING DRAINTILE
O	— WL —	EXISTING WETLAND

WARNING: CONTRACTOR TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

Kimley»Horn

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570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847-260-7804
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

EXISTING CONDITIONS & DEMOLITION PLAN

THE GROVE - AREA 1
(SINGLE FAMILY)
SUGAR GROVE, IL 60554

ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009
SHEET NUMBER

C1.0

Call
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You Dig
JULIE
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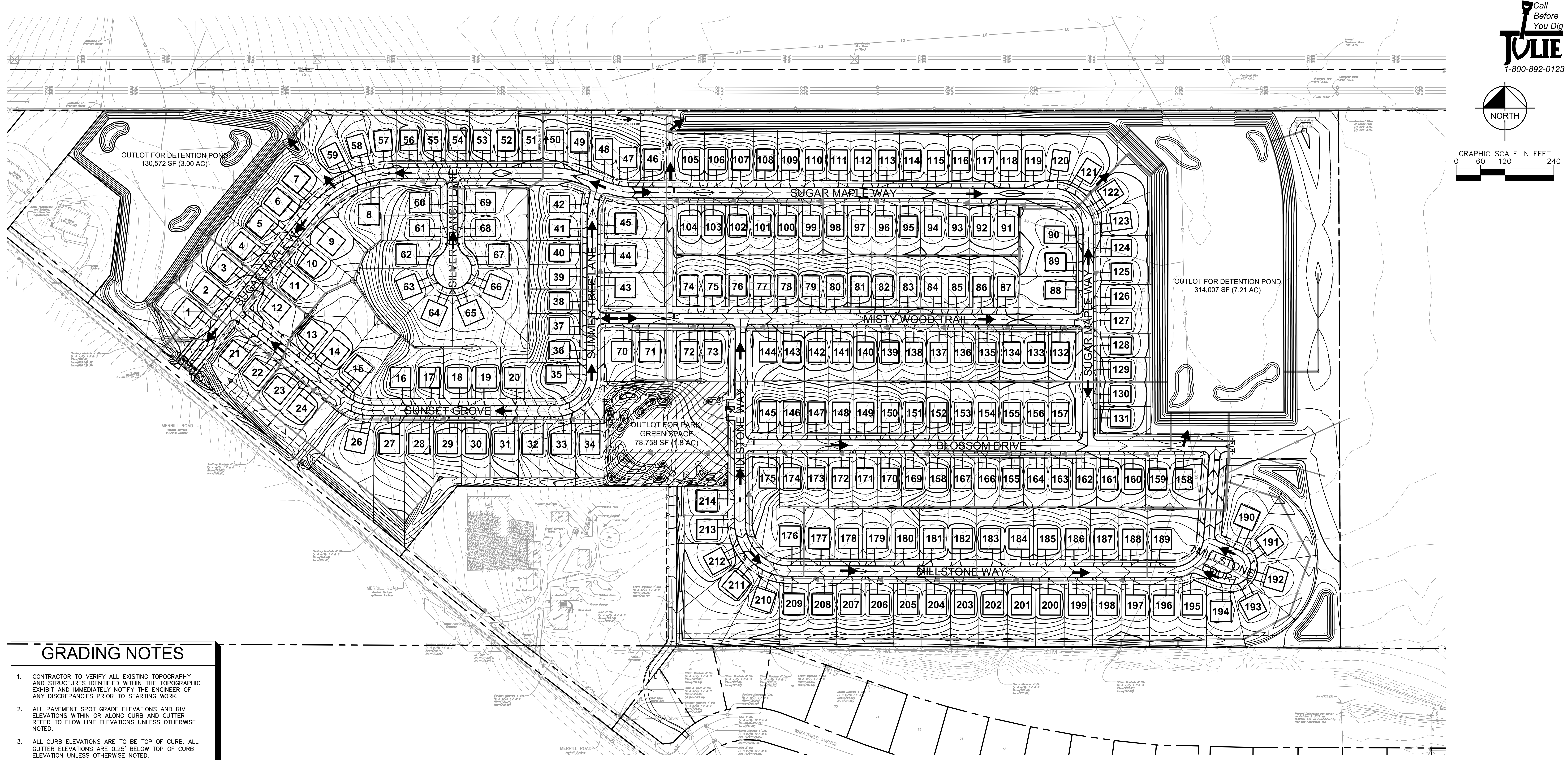

NORTH
GRAPHIC SCALE IN FEET
0 60 120 240
OUTLOT FOR DETENTION POND
130,572 SF (3.00 AC)
OUTLOT FOR DETENTION POND
314,007 SF (7.21 AC)
OUTLOT FOR PARK/
GREEN SPACE
78,758 SF (1.8 AC)
SUGAR MAPLE WAY
SILVER RANCH LANE
SUMMER TREE LANE
MISTY WOOD TRAIL
SUNSET GROVE
BLOSSOM DRIVE
MILLSTONE WAY
MILLSTONE COURT
MERRILL ROAD
WHEATFIELD AVENUE

GRADING NOTES

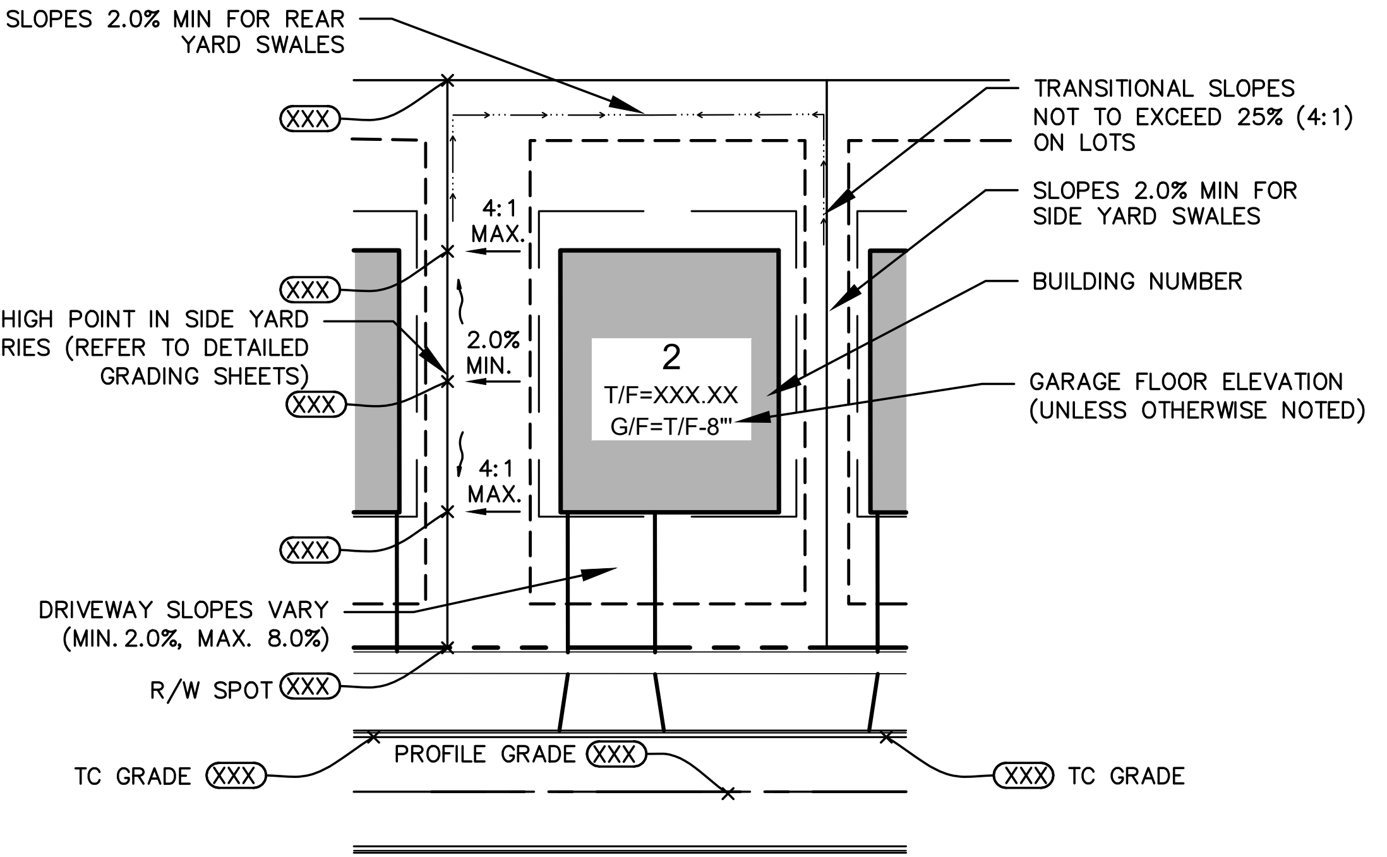
1. CONTRACTOR TO VERIFY ALL EXISTING TOPOGRAPHY AND STRUCTURES IDENTIFIED WITHIN THE TOPOGRAPHIC EXHIBIT AND IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING WORK.
2. ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHIN OR ALONG CURB AND GUTTER REFER TO FLOW LINE ELEVATIONS UNLESS OTHERWISE NOTED.
3. ALL CURB ELEVATIONS ARE TO BE TOP OF CURB. ALL GUTTER ELEVATIONS ARE 0.25' BELOW TOP OF CURB ELEVATION UNLESS OTHERWISE NOTED.
4. ALL ELEVATIONS SHOWN DEPICT FINISHED GRADE UNLESS OTHERWISE NOTED. GENERAL CONTRACTOR TO COORDINATE WITH EXCAVATION, LANDSCAPE AND PAVING SUBCONTRACTORS REGARDING TOPSOIL THICKNESS FOR LANDSCAPE AREAS AND PAVEMENT SECTION THICKNESS FOR PAVED AREAS TO PROPERLY ENSURE ADEQUATE CUT TO ESTABLISH SUBGRADE ELEVATIONS.
5. NO EARTHEN SLOPE SHALL BE GREATER THAN 4:1, EXCEPT FOR WITHIN THE DETENTION BASIN OR FOR LANDSCAPE SCREENING BERMS.
6. MINIMUM SLOPE SHALL BE 2% ON ALL PRIVATE LOTS.
7. MAXIMUM RUNNING SLOPE SHALL NOT EXCEED 5% AND CROSS SLOPE SHALL NOT EXCEED 2% ON ALL SIDEWALKS AND ACCESSIBLE ROUTES.
8. CONTRACTOR TO MATCH EXISTING ELEVATIONS AT THE PROPERTY LIMITS, UNLESS OTHERWISE NOTED AS GRADING LIMITS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES WITH FIELD CONDITIONS PRIOR TO GRADING.
9. WINDOW WELLS ARE NOT ALLOWED ALONG SIDE YARD OVERLAND FLOOD ROUTES.
10. ALL DISTURBED AREAS SHALL BE RESTORED WITH MINIMUM 6-INCHES OF TOPSOIL AND SEEDED, UNLESS OTHERWISE NOTED.
11. SUMP PUMP CONNECTIONS TO THE REAR YARD STORM SEWER ARE REQUIRED FOR ALL LOTS.
12. DRIVEWAY SLOPES FROM RIGHT-OF-WAY SHALL BE A MINIMUM OF 2% AND A MAXIMUM OF 8%. FINAL HOUSE LOCATION TO BE SET BACK UP TO 5' FROM BUILDING SETBACK LINE IF REQUIRED TO MEET MAXIMUM DRIVEWAY SLOPE.
13. ALL DRAIN TILE ENCOUNTERED DURING MASS GRADING / UTILITY WORK MUST BE CONNECTED TO THE PROPOSED STORM SEWER SYSTEM. A RECORD MUST BE KEPT, OF ANY DRAIN TILE ENCOUNTERED, TO BE INCLUDED IN RECORD DRAWINGS.
14. DO NOT INTERRUPT DRAINAGE FROM OFF-SITE DURING CONSTRUCTION OPERATIONS. PROVIDE TEMPORARY DRAINAGE DITCHES WHERE REQUIRED.
15. GRADING INDICATED MAY NEED TO BE ADJUSTED BASED ON FIELD CONDITIONS. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES WITH FIELD CONDITIONS PRIOR TO GRADING.

GRADING LEGEND

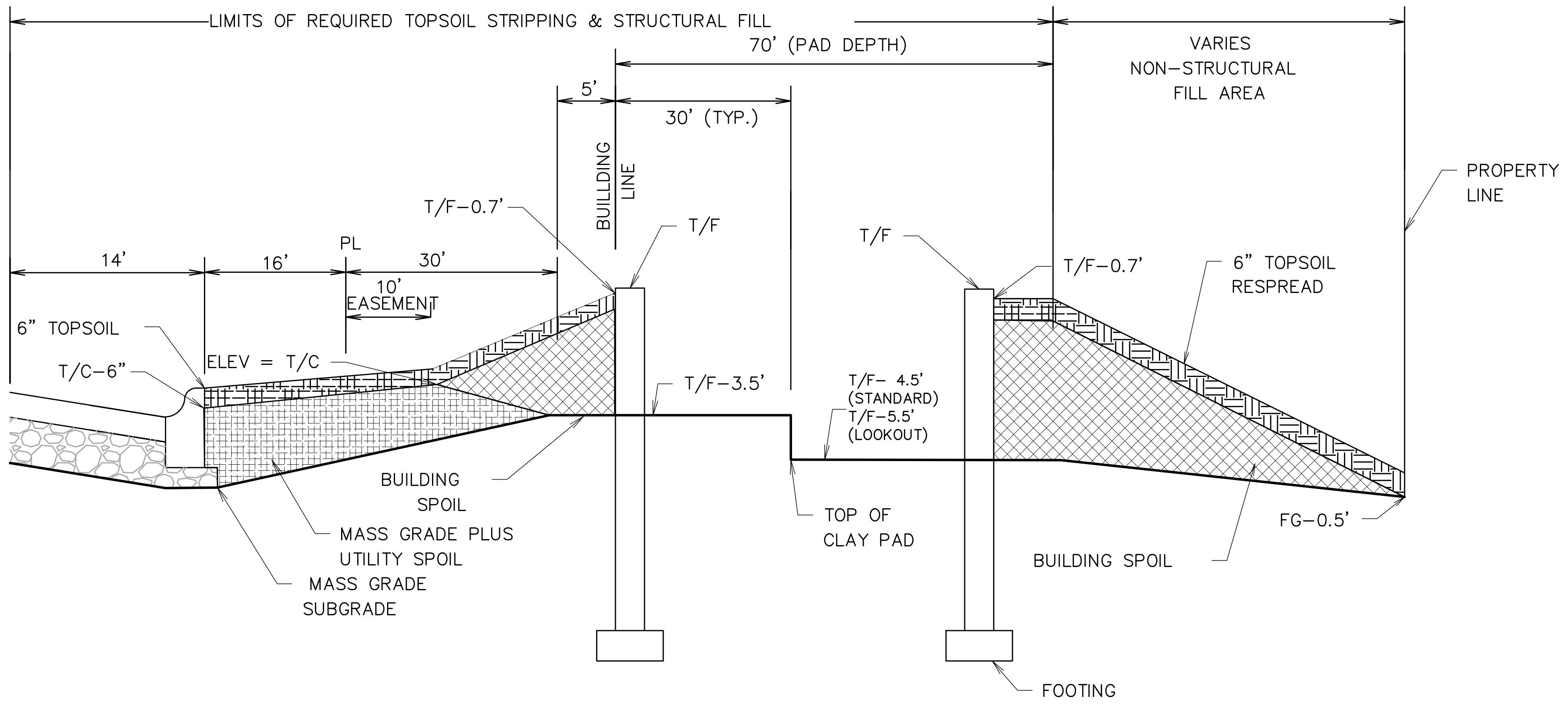
HP	=	HIGH POINT	ME	=	MATCH ELEVATION
LP	=	LOW POINT	LO	=	LOOKOUT
FL	=	FLOW LINE	WO	=	WALKOUT
TC	=	TOP OF CURB	R	=	RIM ELEVATION
GAR/F	=	GARAGE FLOOR	TW	=	TOP OF WALL
TF	=	TOP OF FOUNDATION	BW	=	BOTTOM OF WALL
T/B	=	TOP OF BERM	EW	=	END OF WALL
			FG	=	FINISHED GRADE

——XXX——	PROPOSED CONTOUR
– – –XXX– – –	EXISTING CONTOUR
—— RIDGE ——	RIDGE LINE
X.XX% ←	SLOPE AND FLOW DIRECTION
←	100-YEAR OVERLAND OVERFLOW ROUTE
⇦	DETENTION BASIN 100-YEAR EMERGENCY OVERLAND OVERFLOW ROUTE
—— · · · ←——	PROPOSED SWALE
▨	RIP RAP (SEE DETAILS)
■ ■ ■ ■ ■ ■	LIMITS OF GRADING
— — — — — —	EASEMENT LINE
——— ———	BUILDING SETBACK LINE
▬ ▬ ▬	GRADING BLOWUP DETAIL
▦	DETECTABLE WARNING SURFACE
▨	PROPOSED RETAINING WALL
⊢——⊣	OVERLAND FLOOD ROUTE CROSS SECTION

TYPICAL LOT / UNIT GRADING


SLOPES 2.0% MIN FOR REAR YARD SWALES
XXX
TRANSITIONAL SLOPES NOT TO EXCEED 25% (4:1) ON LOTS
SLOPES 2.0% MIN FOR SIDE YARD SWALES
4:1 MAX.
BUILDING NUMBER
HIGH POINT IN SIDE YARD VARIES (REFER TO DETAILED GRADING SHEETS)
2.0% MIN.
2
T/F=XXX.XX
G/F=T/F-8"
GARAGE FLOOR ELEVATION (UNLESS OTHERWISE NOTED)
4:1 MAX.
DRIVEWAY SLOPES VARY (MIN. 2.0%, MAX. 8.0%)
R/W SPOT XXX
TC GRADE XXX
PROFILE GRADE XXX
XXX TC GRADE

*NOTE: SLOPE BETWEEN TWO POINTS MARKED ON GRADING PLAN SHOULD BE UNIFORM. THERE SHOULD BE NO CHANGE IN SLOPE OR REVERSAL OF SLOPE BETWEEN MARKED POINTS ON THE GRADING PLAN.


LIMITS OF REQUIRED TOPSOIL STRIPPING & STRUCTURAL FILL
70' (PAD DEPTH)
VARIES
NON-STRUCTURAL
FILL AREA
5'
30' (TYP.)
BUILLDING LINE
PROPERTY LINE
T/F-0.7'
T/F
T/F
T/F-0.7'
6" TOPSOIL RESPREAD
14'
16'
PL
30'
10' EASEMENT
6" TOPSOIL
T/C-6"
ELEV = T/C
T/F-3.5'
T/F- 4.5' (STANDARD)
T/F-5.5' (LOOKOUT)
BUILDING SPOIL
MASS GRADE PLUS UTILITY SPOIL
MASS GRADE SUBGRADE
TOP OF CLAY PAD
FG-0.5'
BUILDING SPOIL
FOOTING

STANDARD BASEMENT
MASS-GRADING DETAIL
N.T.S.

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

Kimley»Horn

570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847-260-7804
WWW.KIMLEY-HORN.COM

SUGAR GROVE, LLC

OVERALL GRADING & DRAINAGE PLAN

THE GROVE - AREA 1
(SINGLE FAMILY)
SUGAR GROVE, IL 60554

ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009

SHEET NUMBER
C3.0

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C3.0 GRADING & DRAINAGE PLAN.dwg C3.0 Jul 01, 2025 9:29am by: Joe.Hannah
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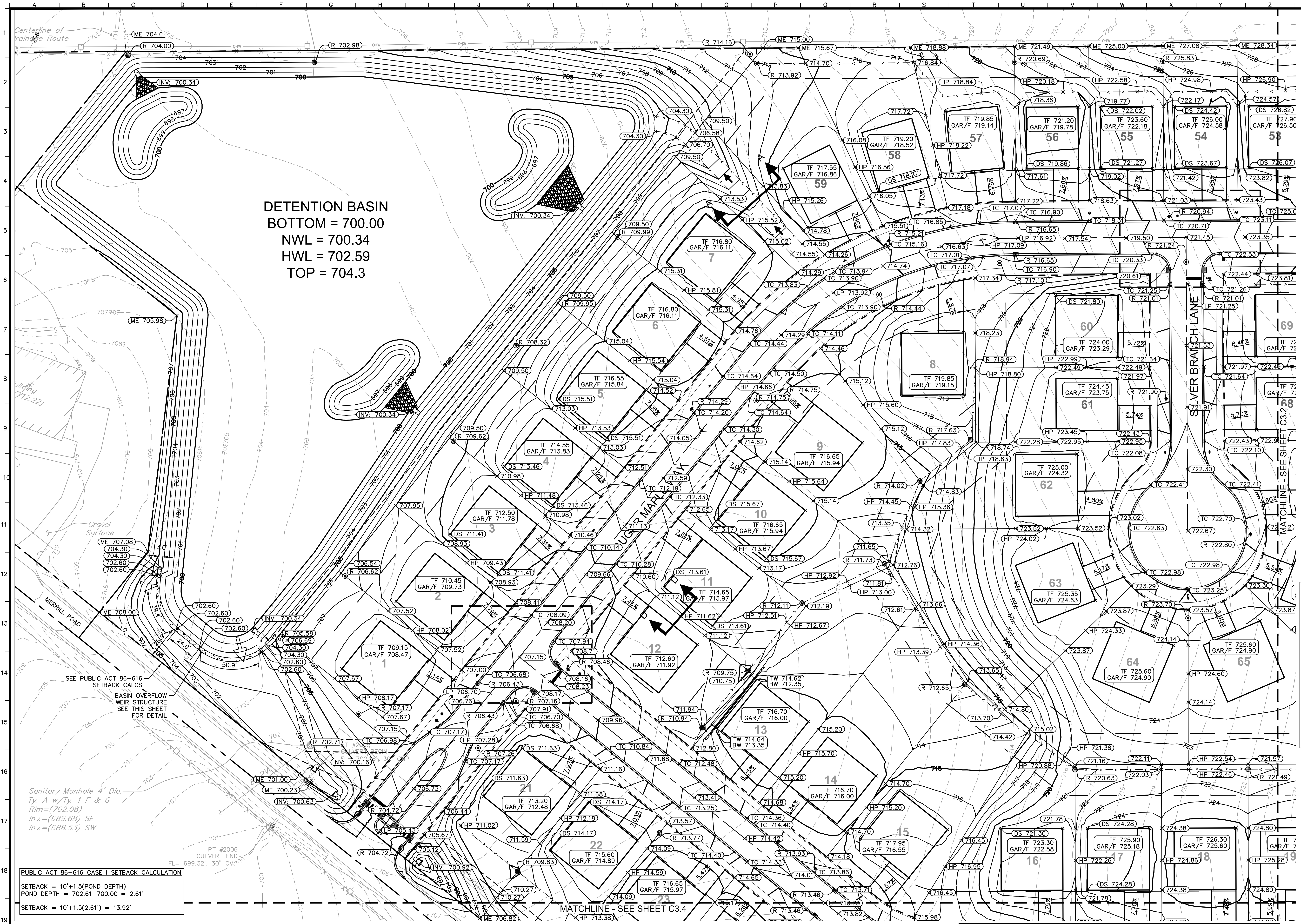
DETENTION BASIN
BOTTOM = 700.00
NWL = 700.34
HWL = 702.59
TOP = 704.3
SUGAR MAPLE LANE
SILVER BRANCH LANE
MERRILL ROAD
MATCHLINE - SEE SHEET C3.2
MATCHLINE - SEE SHEET C3.4
SEE PUBLIC ACT 86-616 SETBACK CALCS
BASIN OVERFLOW WEIR STRUCTURE SEE THIS SHEET FOR DETAIL
Sanitary Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(702.08)
Inv.=(689.68) SE
Inv.=(688.53) SW
PT #2006
CULVERT END
FL= 699.32', 30" C
Gravel Surface
Centerline of Drainage Route
NORTH
GRAPHIC SCALE IN FEET
0 20 40 80

PUBLIC ACT 86-616 CASE I SETBACK CALCULATION

SETBACK = 10'+1.5(POND DEPTH)
POND DEPTH = 702.61-700.00 = 2.61'

SETBACK = 10'+1.5(2.61') = 13.92'

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1-800-892-0123

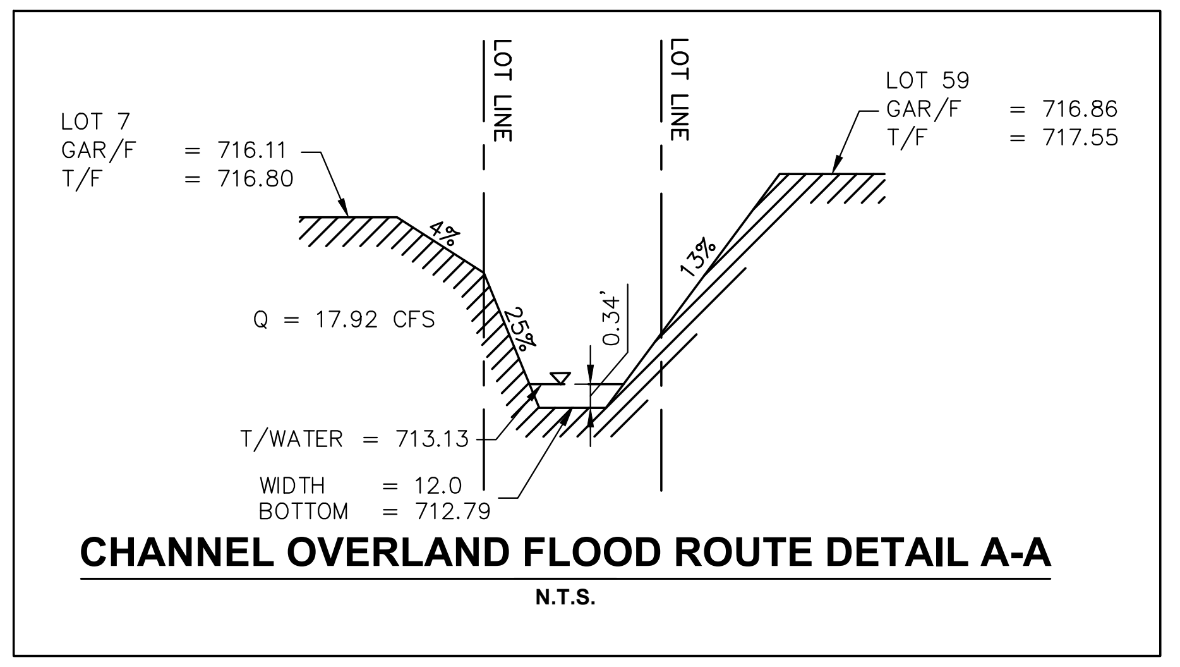
GRADING NOTES

1. REFER TO SHEET C3.0 FOR ALL GRADING AND DRAINAGE NOTES AND SYMBOL LEGEND.
2. CURB INLET RIM ELEVATION LABELS ARE REFERENCING THE GUTTER FLOW LINE ELEVATION.

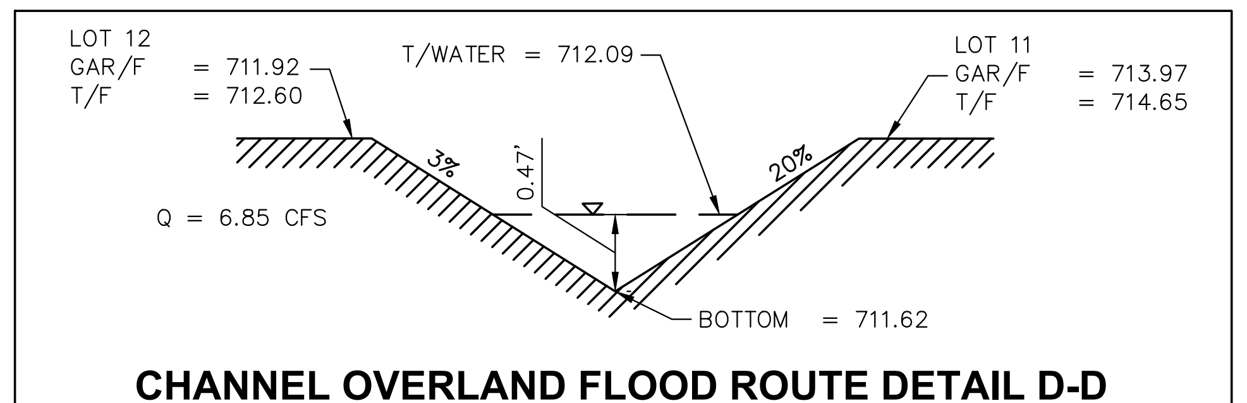
GRADING LEGEND

HP = HIGH POINT
LP = LOW POINT
FL = FLOW LINE
TC = TOP OF CURB
GAR/F = GARAGE FLOOR
TF = TOP OF FOUNDATION
T/B = TOP OF BERM
ME = MATCH ELEVATION
LO = LOOKOUT
WO = WALKOUT
R = RIM ELEVATION
TW = TOP OF WALL
BW = BOTTOM OF WALL
EW = END OF WALL
FG = FINISHED GRADE
DS = DROP SIDING

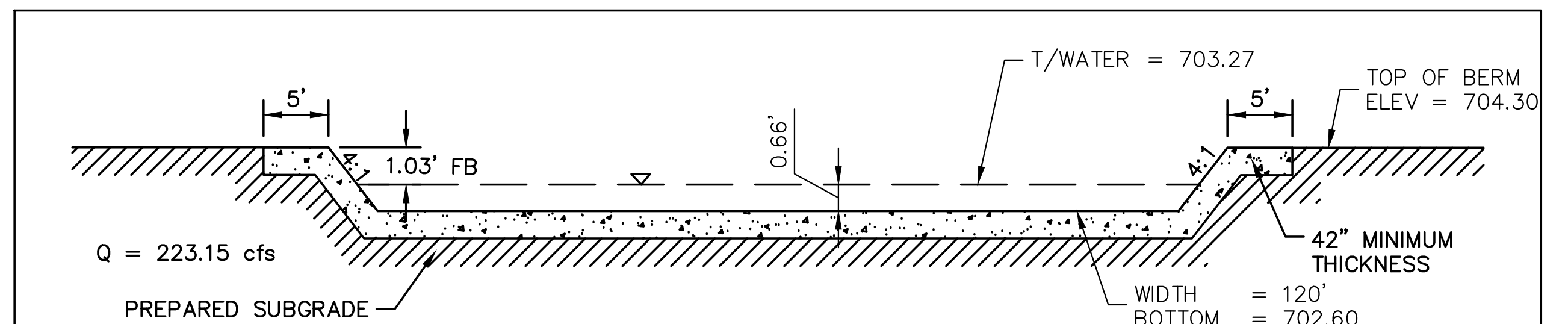
——XXX——	PROPOSED CONTOUR
– – –XXX– – –	EXISTING CONTOUR
RIDGE	RIDGE LINE
X.XX% ←	SLOPE AND FLOW DIRECTION
◀	100-YEAR OVERLAND OVERFLOW ROUTE
⇦	DETENTION BASIN 100-YEAR EMERGENCY OVERLAND OVERFLOW ROUTE
—— · · · ←——	PROPOSED SWALE
▨	RIP RAP (SEE DETAILS)
▪▪▪▪▪▪▪▪	LIMITS OF GRADING
– – – – – –	EASEMENT LINE
——— ———	BUILDING SETBACK LINE
▬ ▬ ▬	GRADING BLOWUP DETAIL
▒	DETECTABLE WARNING SURFACE
▨	PROPOSED RETAINING WALL
↑——↑	OVERLAND FLOOD ROUTE CROSS SECTION


LOT 7
GAR/F = 716.11
T/F = 716.80
LOT LINE
LOT LINE
LOT 59
GAR/F = 716.86
T/F = 717.55
4%
25%
0.34'
13%
Q = 17.92 CFS
T/WATER = 713.13
WIDTH = 12.0
BOTTOM = 712.79

CHANNEL OVERLAND FLOOD ROUTE DETAIL A-A
N.T.S.


LOT 12
GAR/F = 711.92
T/F = 712.60
T/WATER = 712.09
LOT 11
GAR/F = 713.97
T/F = 714.65
3%
0.47'
20%
Q = 6.85 CFS
BOTTOM = 711.62

CHANNEL OVERLAND FLOOD ROUTE DETAIL D-D
N.T.S.

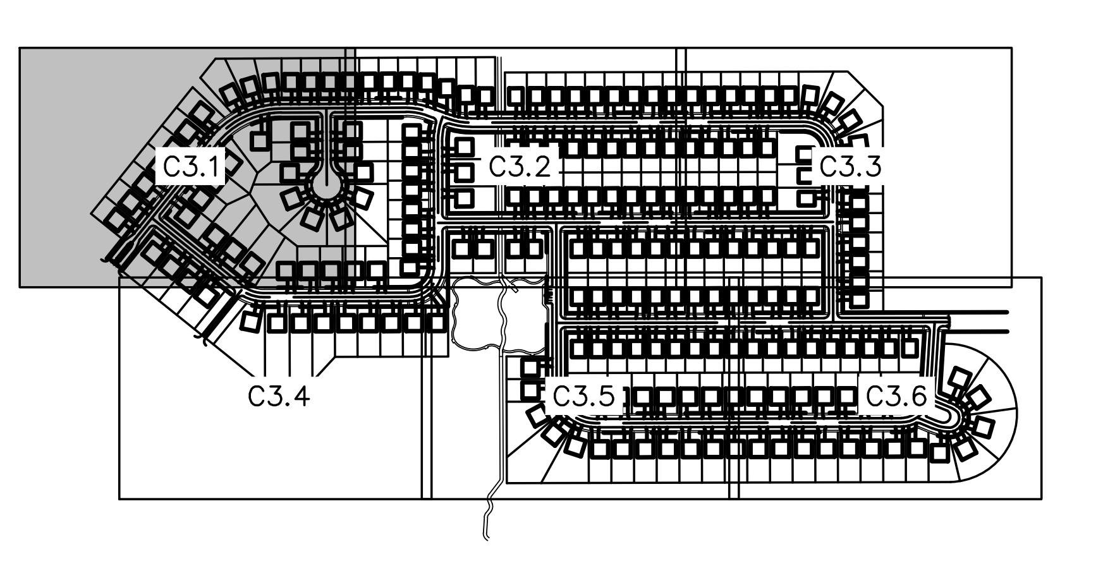

5'
1.03' FB
T/WATER = 703.27
0.66'
5'
TOP OF BERM ELEV = 704.30
4:1
4:1
Q = 223.15 cfs
PREPARED SUBGRADE COMPACTED TO 95% MODIFIED PROCTOR DENSITY
42" MINIMUM THICKNESS
WIDTH = 120'
BOTTOM = 702.60

EMERGENCY OVERFLOW DETAIL
N.T.S.

OVERFLOW STRUCTURE NOTES

1. STRUCTURE TO BE CONSTRUCTED OF REINFORCED CONCRETE, IDOT CLASS SI (6.1 BAG MIX) MIN 3500 PSI AT 14 DAYS, WITH 5% TO 7% AIR ENTRAINMENT. (NO FLY ASH ALLOWED)
2. SMOOTH FINISH -1" CHAMFER ON ALL EPOSED EDGES
3. PROVIDE MIN #4 REBARS IN FOOTING AND WEIR, 12" O.C., EACH WAY
4. BACKFILL MATERIAL TO BE INORGANIC COHESIVE SOIL, COMPACTED IN MAXIMUM 12" (LOOSE) LIFTS TO AT LEAST 90% MODIFIED PROCTOR DENSITY (ASTM D-1557)
5. EROSION CONTROL MATERIAL TO BE PROVIDED IN FRONT AND REAR OF WEIR OPENING.
6. CONTRACTOR TO NOT EXCEED SPECIFIED DETENTION POND ELEVATIONS UNTIL STORM WATER SYSTEM IS FULLY FUNCTIONAL FOR THE MASS GRADE CONDITION.

KEY MAP


C3.1
C3.2
C3.3
C3.4
C3.5
C3.6

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

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DEERFIELD, IL 60015
PHONE: 847-260-7804
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SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

DETAILED GRADING & DRAINAGE PLAN

THE GROVE - AREA 1
(SINGLE FAMILY)
SUGAR GROVE, IL 60554

ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009
SHEET NUMBER
C3.1

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C3.1 DETAILED GRADING & DRAINAGE PLAN.dwg C3.1 Jul 01, 2025 9:30am by: Joe.Hannah
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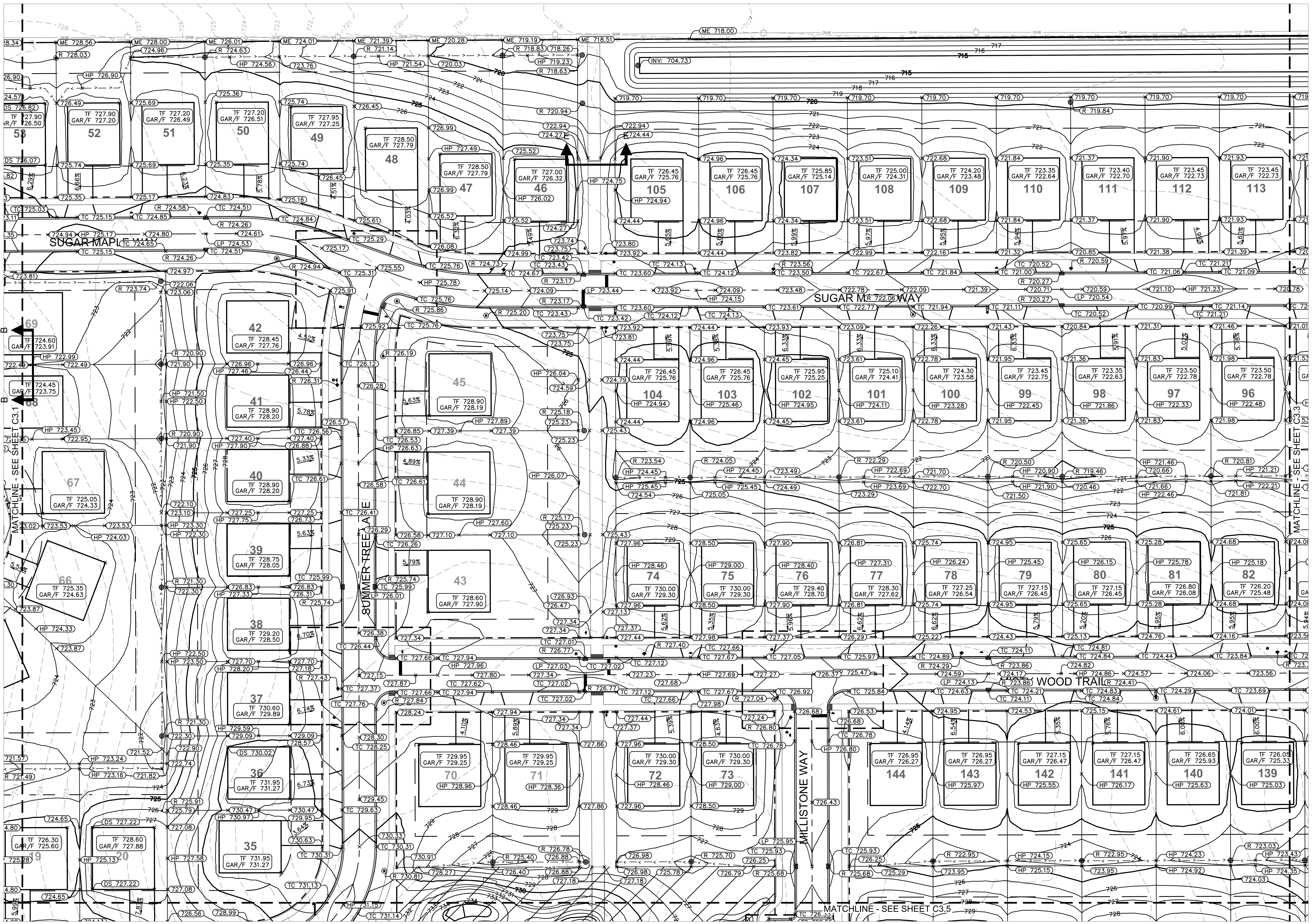
SUGAR MAPLE WAY
SUGAR MAPLE WAY
SUMMER TREE LANE
WOOD TRAIL
MILLSTONE WAY
MATCHLINE - SEE SHEET C3.1
MATCHLINE - SEE SHEET C3.3
MATCHLINE - SEE SHEET C3.5
B
B
35
36
37
38
39
40
41
42
43
44
45
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47
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49
50
51
52
53
66
67
68
69
70
71
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97
98
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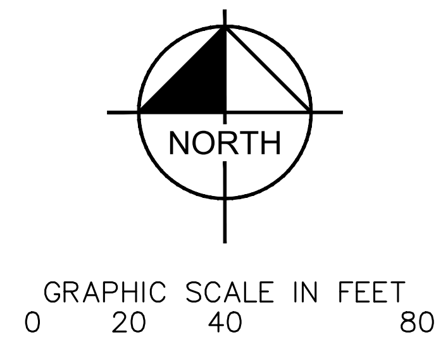
144


NORTH
GRAPHIC SCALE IN FEET
0
20
40
80

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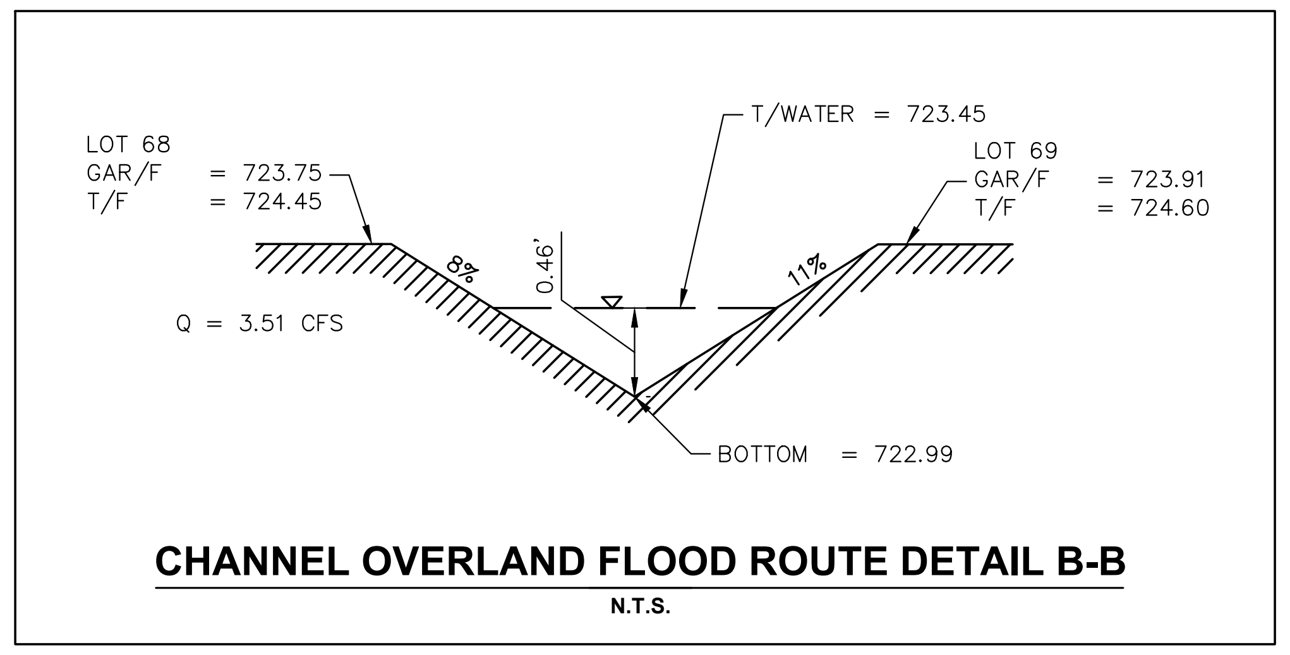
GRADING NOTES

1. REFER TO SHEET C3.0 FOR ALL GRADING AND DRAINAGE NOTES AND SYMBOL LEGEND.
2. CURB INLET RIM ELEVATION LABELS ARE REFERENCING THE GUTTER FLOW LINE ELEVATION.

GRADING LEGEND

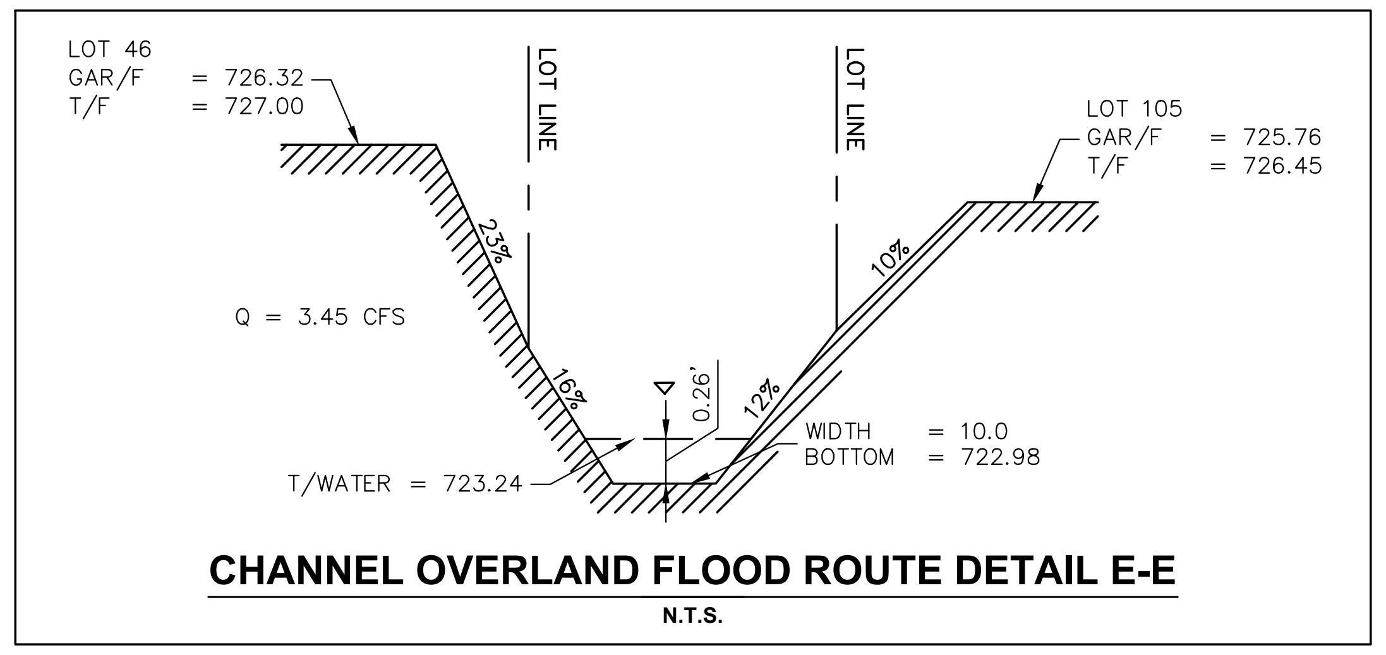
HP	= HIGH POINT		LO	= LOOKOUT
LP	= LOW POINT		WO	= WALKOUT
FL	= FLOW LINE		R	= RIM ELEVATION
TC	= TOP OF CURB		TW	= TOP OF WALL
GAR/F	= GARAGE FLOOR		BW	= BOTTOM OF WALL
TF	= TOP OF FOUNDATION		EW	= END OF WALL
T/B	= TOP OF BERM		FG	= FINISHED GRADE
ME	= MATCH ELEVATION		DS	= DROP SIDING

——XXX——	PROPOSED CONTOUR
– – –XXX– – –	EXISTING CONTOUR
— RIDGE —	RIDGE LINE
X.XX%	SLOPE AND FLOW DIRECTION
←	100–YEAR OVERLAND OVERFLOW ROUTE
⇦	DETENTION BASIN 100–YEAR EMERGENCY OVERLAND OVERFLOW ROUTE
—— · · · ←	PROPOSED SWALE
▨	RIP RAP (SEE DETAILS)
■ ■ ■ ■	LIMITS OF GRADING
— — — —	EASEMENT LINE
—— ——	BUILDING SETBACK LINE
▬ ▬ ▬	GRADING BLOWUP DETAIL
▩	DETECTABLE WARNING SURFACE
▨	PROPOSED RETAINING WALL
⊢—⊣	OVERLAND FLOOD ROUTE CROSS SECTION


LOT 68
GAR/F = 723.75
T/F = 724.45
T/WATER = 723.45
LOT 69
GAR/F = 723.91
T/F = 724.60
8%
0.46'
11%
Q = 3.51 CFS
BOTTOM = 722.99

CHANNEL OVERLAND FLOOD ROUTE DETAIL B-B

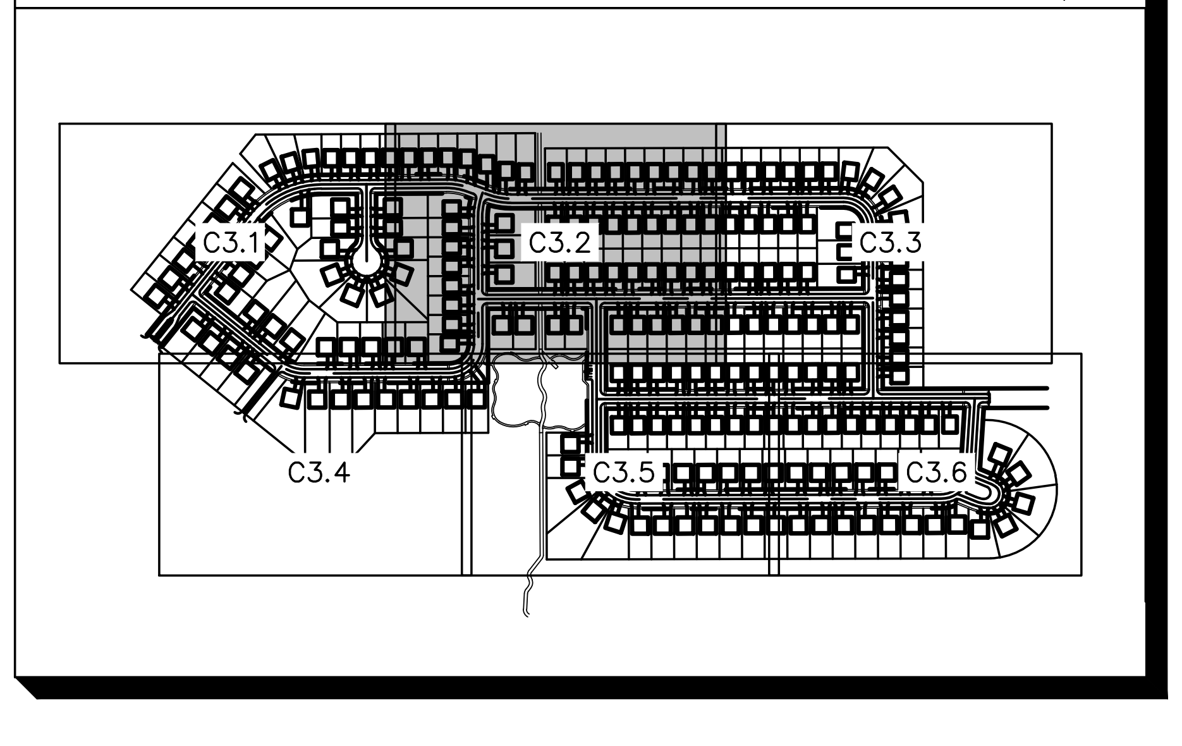
N.T.S.


LOT 46
GAR/F = 726.32
T/F = 727.00
LOT LINE
LOT LINE
LOT 105
GAR/F = 725.76
T/F = 726.45
23%
10%
Q = 3.45 CFS
16%
0.26'
12%
WIDTH = 10.0
BOTTOM = 722.98
T/WATER = 723.24

CHANNEL OVERLAND FLOOD ROUTE DETAIL E-E

N.T.S.

KEY MAP


C3.1
C3.2
C3.3
C3.4
C3.5
C3.6

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
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SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

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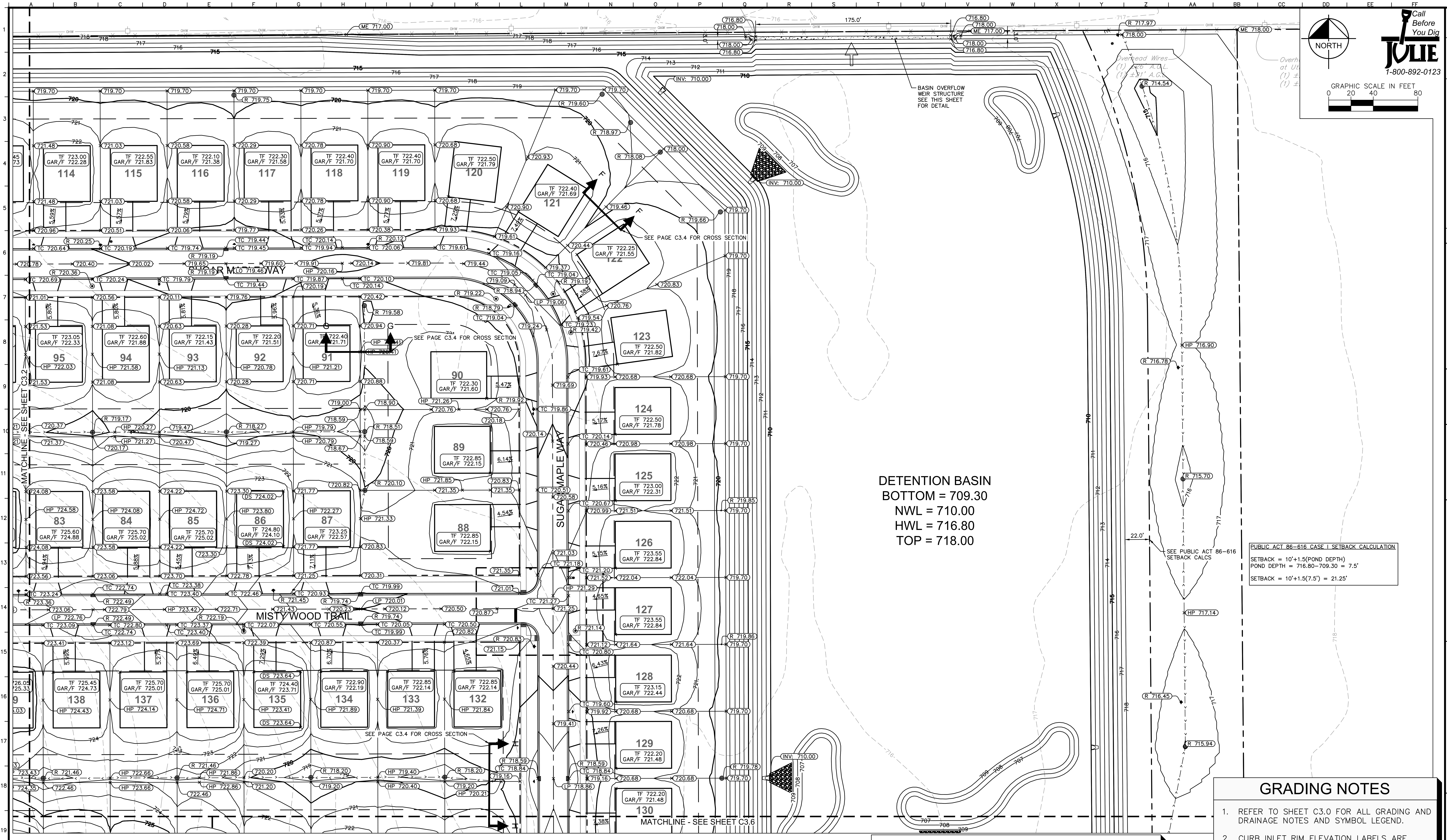
SUGAR GROVE, IL 60554

ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009
SHEET NUMBER
C3.2

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C3.1 DETAILED GRADING & DRAINAGE PLAN.dwg C3.2 Jul 01, 2025 9:31am by: Joe.Hannah


NORTH
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1-800-892-0123
GRAPHIC SCALE IN FEET
0
20
40
80
DETENTION BASIN
BOTTOM = 709.30
NWL = 710.00
HWL = 716.80
TOP = 718.00
BASIN OVERFLOW WEIR STRUCTURE SEE THIS SHEET FOR DETAIL
SEE PAGE C3.4 FOR CROSS SECTION
SEE PUBLIC ACT 86-616 SETBACK CALCS
SUGAR MAPLE WAY
SUGAR MAPLE WAY
MISTY WOOD TRAIL
MATCHLINE - SEE SHEET C3.2
MATCHLINE - SEE SHEET C3.6
175.0'
22.0'
INV. 710.00
ME 717.00
ME 718.00
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
95
94
93
92
91
90
89
88
83
84
85
86
87
138
137
136
135
134
133
132

PUBLIC ACT 86-616 CASE I SETBACK CALCULATION

SETBACK = 10'+1.5(POND DEPTH)
POND DEPTH = 716.80–709.30 = 7.5'

SETBACK = 10'+1.5(7.5') = 21.25'

GRADING NOTES

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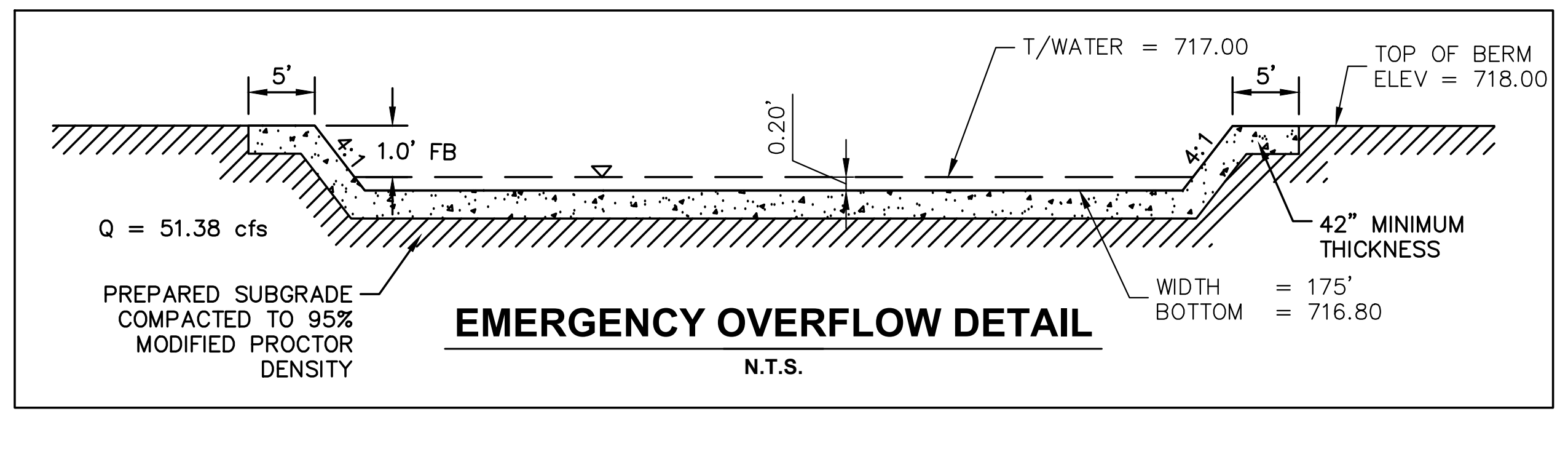
FG = FINISHED GRADE
DS = DROP SIDING

——XXX——	PROPOSED CONTOUR
– – –XXX– – –	EXISTING CONTOUR
RIDGE	RIDGE LINE
X.XX%	SLOPE AND FLOW DIRECTION
←	100–YEAR OVERLAND OVERFLOW ROUTE
⇦	DETENTION BASIN 100–YEAR EMERGENCY OVERLAND OVERFLOW ROUTE
—— · · · ←—	PROPOSED SWALE
▨	RIP RAP (SEE DETAILS)
■■■■■■	LIMITS OF GRADING
— — — —	EASEMENT LINE
——— ———	BUILDING SETBACK LINE
▬ ▬ ▬	GRADING BLOWUP DETAIL
▨	DETECTABLE WARNING SURFACE
▨	PROPOSED RETAINING WALL
↑———↑	OVERLAND FLOOD ROUTE CROSS SECTION


T/WATER = 717.00
TOP OF BERM ELEV = 718.00
5'
5'
1.0' FB
0.20'
4:1
4:1
42" MINIMUM THICKNESS
Q = 51.38 cfs
PREPARED SUBGRADE COMPACTED TO 95% MODIFIED PROCTOR DENSITY
WIDTH = 175'
BOTTOM = 716.80

EMERGENCY OVERFLOW DETAIL

N.T.S.

OVERFLOW STRUCTURE NOTES

1. STRUCTURE TO BE CONSTRUCTED OF REINFORCED CONCRETE, IDOT CLASS SI (6.1 BAG MIX) MIN 3500 PSI AT 14 DAYS, WITH 5% TO 7% AIR ENTRAINMENT. (NO FLY ASH ALLOWED)
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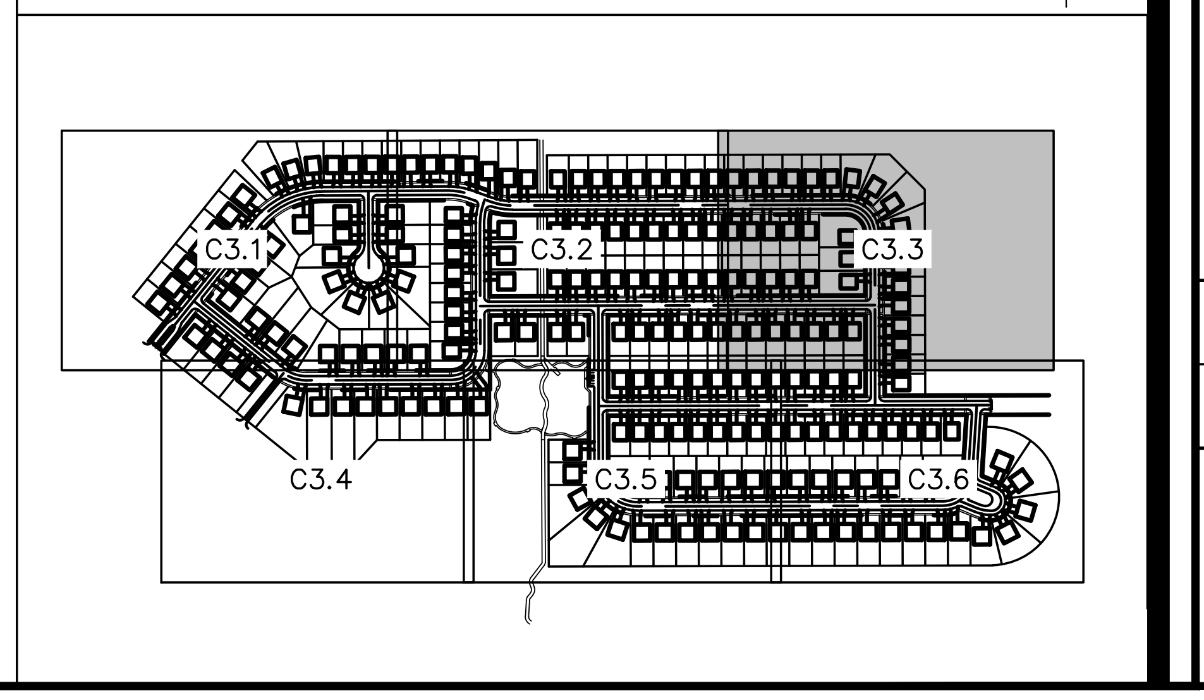
6. CONTRACTOR TO NOT EXCEED SPECIFIED DETENTION POND ELEVATIONS UNTIL STORM WATER SYSTEM IS FULLY FUNCTIONAL FOR THE MASS GRADE CONDITION.

KEY MAP


C3.1
C3.2
C3.3
C3.4
C3.5
C3.6

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

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SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

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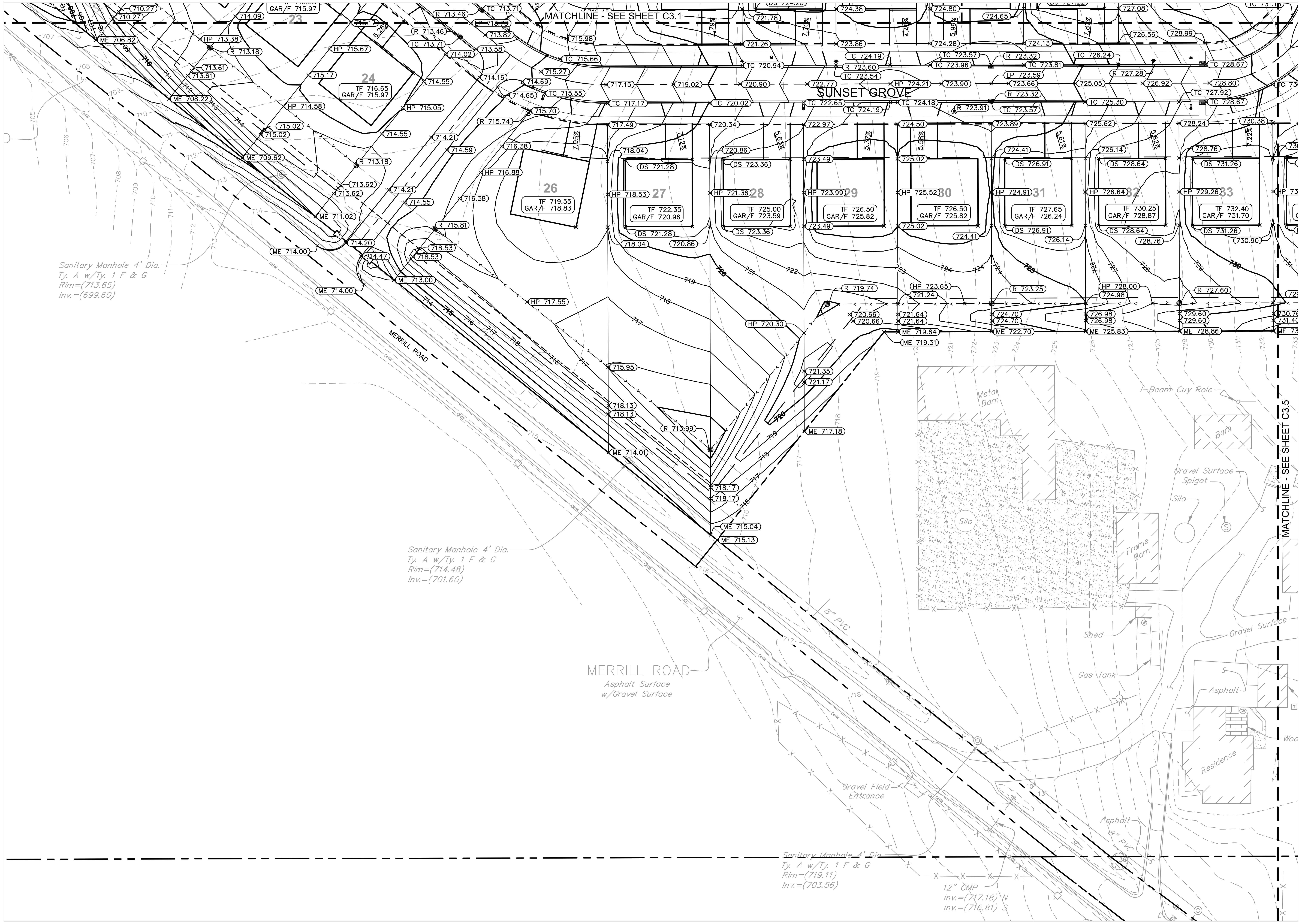
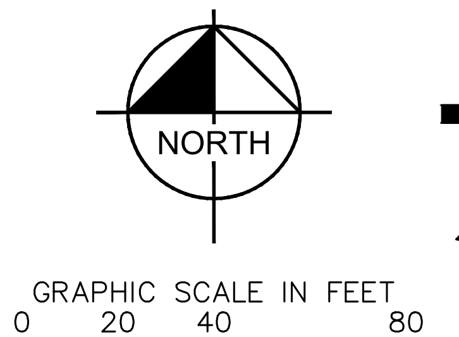
SUGAR GROVE, IL 60554

ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009
SHEET NUMBER
C3.3

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C3.1 DETAILED GRADING & DRAINAGE PLAN.dwg C3.3 Jul 01, 2025 9:31am by: Joe.Hannah


MATCHLINE - SEE SHEET C3.1
MATCHLINE - SEE SHEET C3.5
SUNSET GROVE
MERRILL ROAD
MERRILL ROAD
Asphalt Surface
w/Gravel Surface
23
24
26
27
28
29
30
31
Sanitary Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(713.65)
Inv.=(699.60)
Sanitary Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(714.48)
Inv.=(701.60)
Sanitary Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(719.11)
Inv.=(703.56)
12" CMP
Inv.=(717.18) N
Inv.=(716.81) S
8" PVC
Metal Barn
Barn
Silo
Frame Barn
Shed
Gas Tank
Gravel Surface
Spigot
Gravel Field Entrance
Asphalt
Residence
I-Beam Guy Pole
TF 716.65
GAR/F 715.97
TF 719.55
GAR/F 718.83
TF 722.35
GAR/F 720.96
TF 725.00
GAR/F 723.59
TF 726.50
GAR/F 725.82
TF 726.50
GAR/F 725.82
TF 727.65
GAR/F 726.24
TF 730.25
GAR/F 728.87
TF 732.40
GAR/F 731.70
ME 714.01
ME 715.04
ME 715.13
ME 717.18
ME 719.64
ME 719.31
ME 722.70
ME 725.83
ME 728.86
HP 720.30
HP 717.55
R 719.74
R 713.99


NORTH
GRAPHIC SCALE IN FEET
0
20
40
80

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GRADING NOTES

1. REFER TO SHEET C3.0 FOR ALL GRADING AND DRAINAGE NOTES AND SYMBOL LEGEND.
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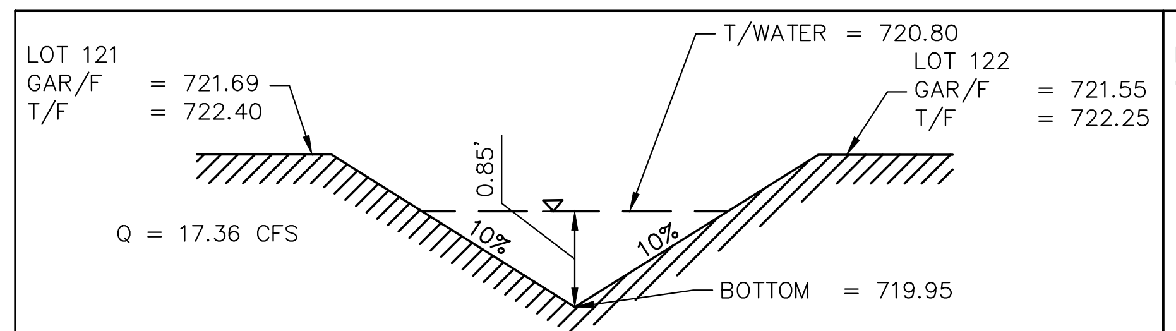
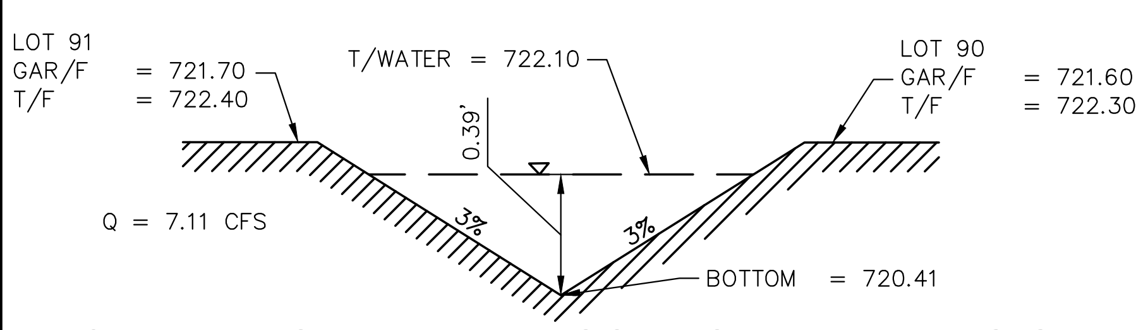
T/B	= TOP OF BERM		FG	= FINISHED GRADE
ME	= MATCH ELEVATION		DS	= DROP SIDING

——XXX——	PROPOSED CONTOUR
– – –XXX– – –	EXISTING CONTOUR
__RIDGE__	RIDGE LINE
X.XX%	SLOPE AND FLOW DIRECTION
⬅	100-YEAR OVERLAND OVERFLOW ROUTE
⇦	DETENTION BASIN 100-YEAR EMERGENCY OVERLAND OVERFLOW ROUTE
—— · · · ←	PROPOSED SWALE
▨	RIP RAP (SEE DETAILS)
■■■■■■	LIMITS OF GRADING
— — — —	EASEMENT LINE
——— ———	BUILDING SETBACK LINE
▬ ▬ ▬	GRADING BLOWUP DETAIL
▨	DETECTABLE WARNING SURFACE
▨	PROPOSED RETAINING WALL
├──┤	OVERLAND FLOOD ROUTE CROSS SECTION


LOT 121
GAR/F = 721.69
T/F = 722.40
T/WATER = 720.80
LOT 122
GAR/F = 721.55
T/F = 722.25
0.85'
Q = 17.36 CFS
10%
10%
BOTTOM = 719.95

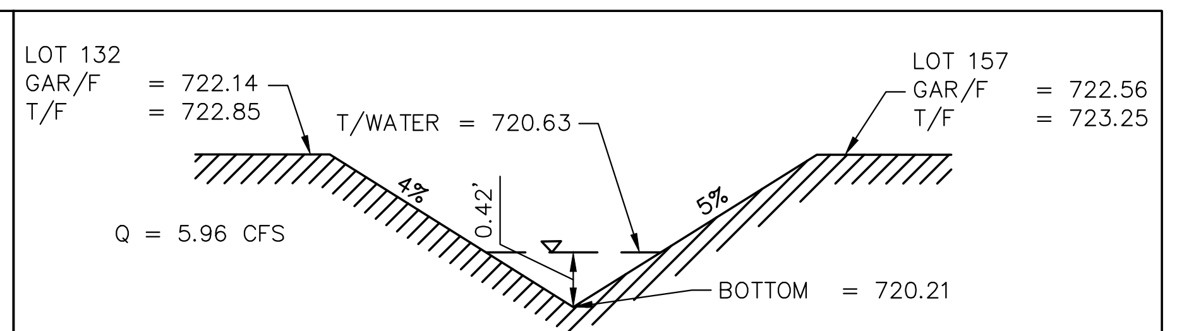
CHANNEL OVERLAND FLOOD ROUTE DETAIL F-F

N.T.S.


LOT 91
GAR/F = 721.70
T/F = 722.40
T/WATER = 722.10
LOT 90
GAR/F = 721.60
T/F = 722.30
0.39'
Q = 7.11 CFS
3%
3%
BOTTOM = 720.41

CHANNEL OVERLAND FLOOD ROUTE DETAIL G-G

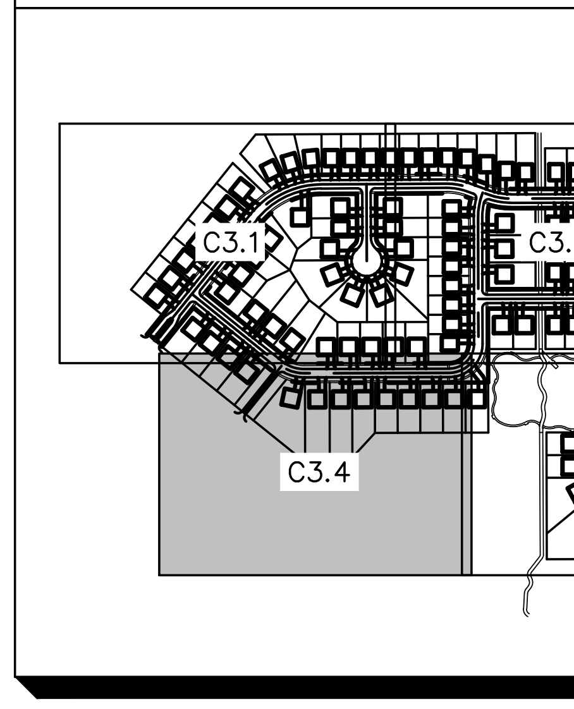
N.T.S.


LOT 132
GAR/F = 722.14
T/F = 722.85
T/WATER = 720.63
LOT 157
GAR/F = 722.56
T/F = 723.25
0.42'
Q = 5.96 CFS
4%
5%
BOTTOM = 720.21

CHANNEL OVERLAND FLOOD ROUTE DETAIL H-H

N.T.S.

KEY MAP


NORTH
C3.1
C3.2
C3.3
C3.4
C3.5
C3.6

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

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SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

DETAILED GRADING & DRAINAGE PLAN

THE GROVE - AREA 1 (SINGLE FAMILY)

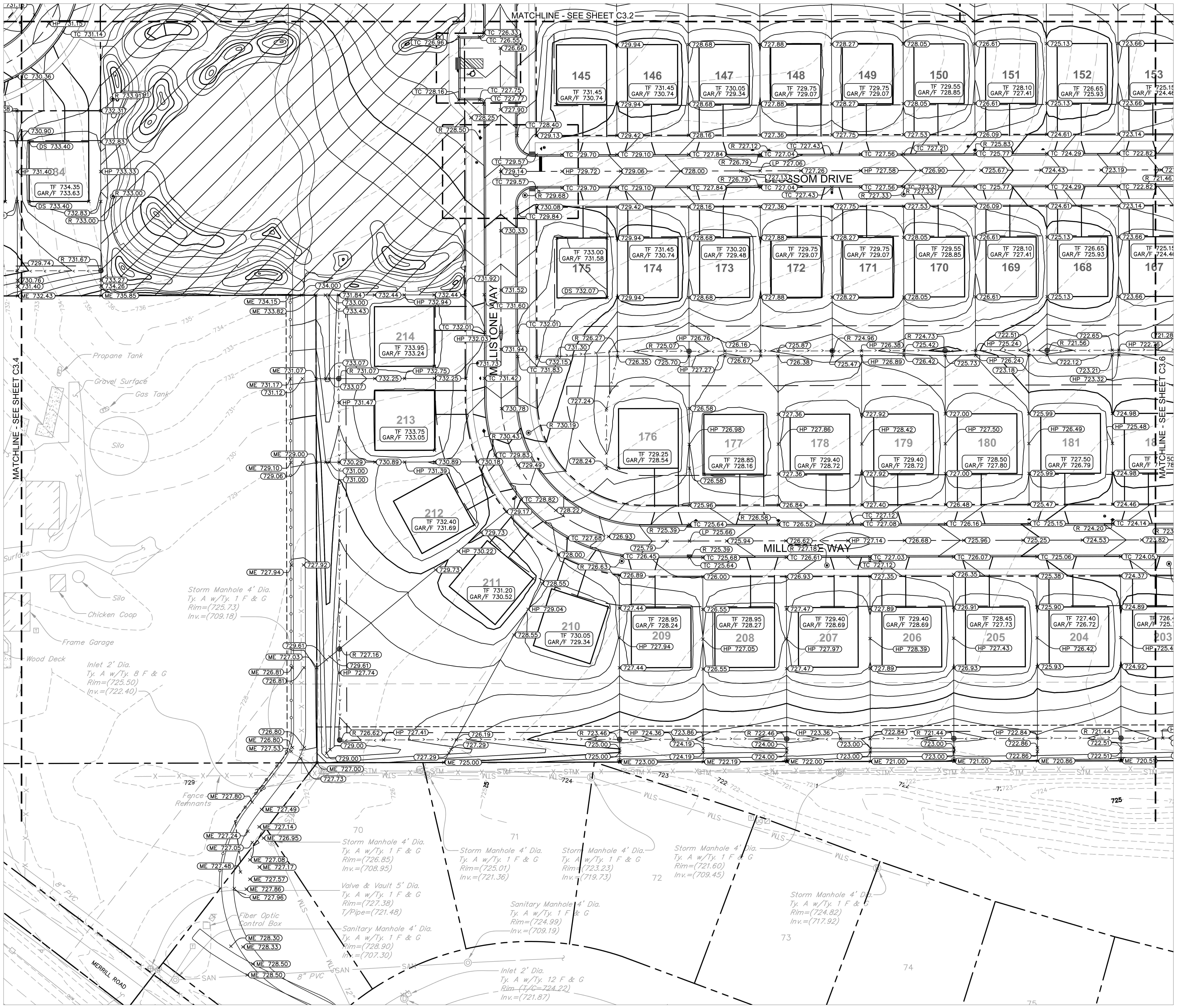
SUGAR GROVE, IL 60554

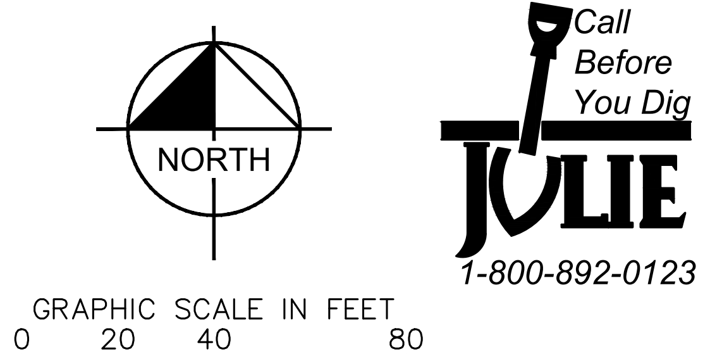
ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009

SHEET NUMBER

C3.4

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C3.1 DETAILED GRADING & DRAINAGE PLAN.dwg C3.4 Jul 01, 2025 9:32am by: Joe.Hannah


MATCHLINE - SEE SHEET C3.2
MATCHLINE - SEE SHEET C3.4
MATCHLINE - SEE SHEET C3.6
BLOSSOM DRIVE
MILLSTONE WAY
MILLSTONE WAY
MERRILL ROAD
145
146
147
148
149
150
151
152
153
175
174
173
172
171
170
169
168
167
214
213
212
211
210
176
177
178
179
180
181
209
208
207
206
205
204
203
Propane Tank
Gravel Surface
Gas Tank
Silo
Silo
Chicken Coop
Frame Garage
Wood Deck
Fence Remnants
Fiber Optic Control Box
Storm Manhole 4' Dia. Ty. A w/Ty. 1 F & G Rim=(725.73) Inv.=(709.18)
Inlet 2' Dia. Ty. A w/Ty. 8 F & G Rim=(725.50) Inv.=(722.40)
Storm Manhole 4' Dia. Ty. A w/Ty. 1 F & G Rim=(726.85) Inv.=(708.95)
Storm Manhole 4' Dia. Ty. A w/Ty. 1 F & G Rim=(725.01) Inv.=(721.36)
Storm Manhole 4' Dia. Ty. A w/Ty. 1 F & G Rim=(723.23) Inv.=(719.73)
Storm Manhole 4' Dia. Ty. A w/Ty. 1 F & G Rim=(721.60) Inv.=(709.45)
Valve & Vault 5' Dia. Ty. A w/Ty. 1 F & G Rim=(727.38) T/Pipe=(721.48)
Sanitary Manhole 4' Dia. Ty. A w/Ty. 1 F & G Rim=(728.90) Inv.=(707.30)
Sanitary Manhole 4' Dia. Ty. A w/Ty. 1 F & G Rim=(724.99) Inv.=(709.19)
Storm Manhole 4' Dia. Ty. A w/Ty. 1 F & G Rim=(724.82) Inv.=(717.92)
Inlet 2' Dia. Ty. A w/Ty. 12 F & G Rim (T/C=724.22) Inv.=(721.87)
8" PVC
8" PVC
70
71
72
73
74


NORTH
GRAPHIC SCALE IN FEET
0
20
40
80

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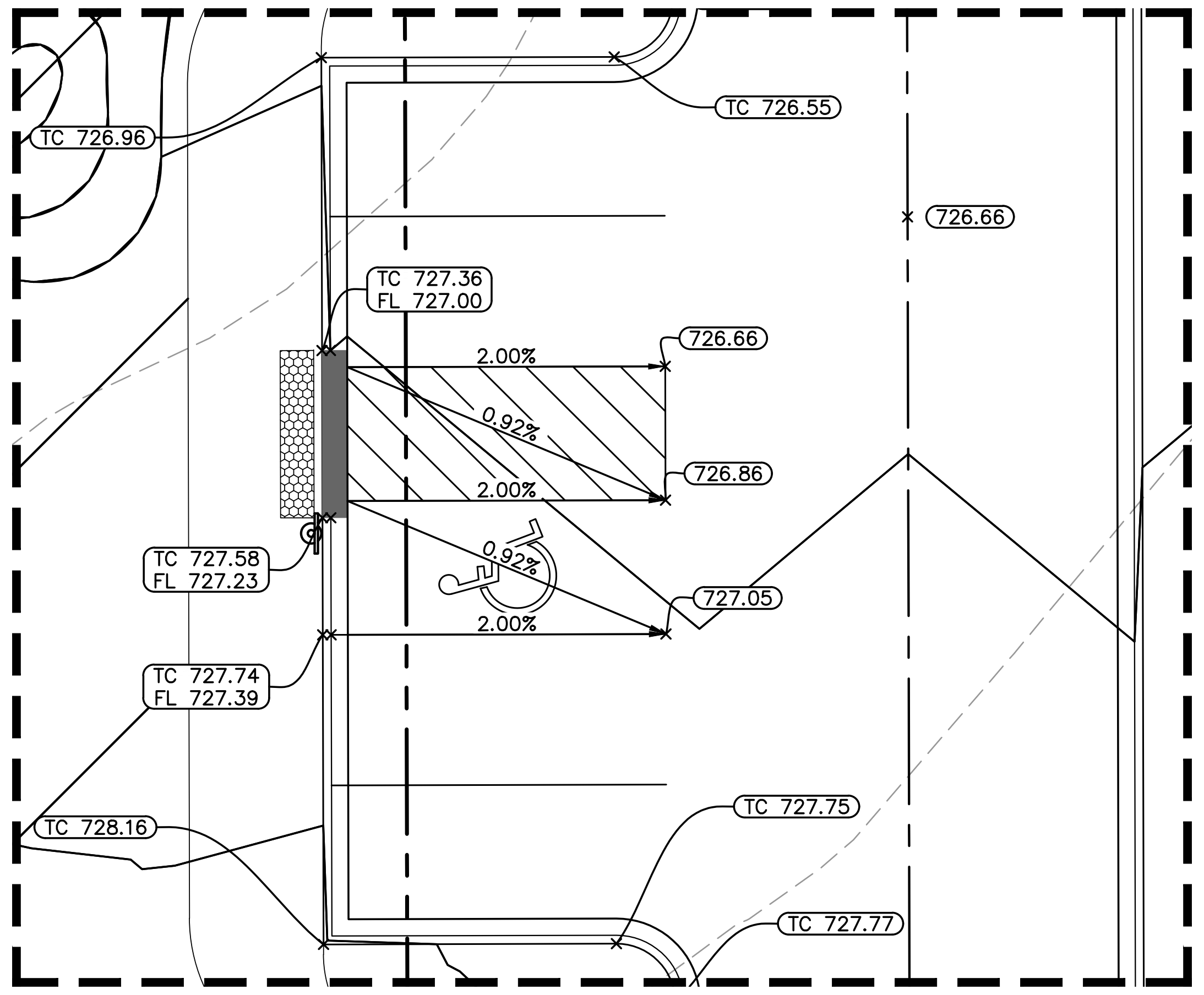
GRADING NOTES

1. REFER TO SHEET C3.0 FOR ALL GRADING AND DRAINAGE NOTES AND SYMBOL LEGEND.
2. CURB INLET RIM ELEVATION LABELS ARE REFERENCING THE GUTTER FLOW LINE ELEVATION.

GRADING LEGEND

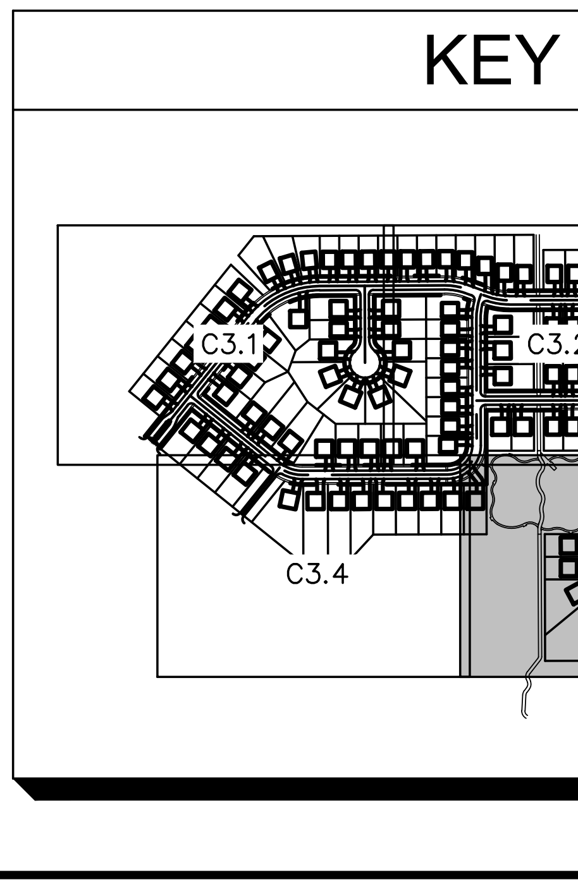
HP	HIGH POINT	LO	LOOKOUT
LP	LOW POINT	WO	WALKOUT
FL	FLOW LINE	R	RIM ELEVATION
TC	TOP OF CURB	TW	TOP OF WALL
GAR/F	GARAGE FLOOR	BW	BOTTOM OF WALL
TF	TOP OF FOUNDATION	EW	END OF WALL
T/B	TOP OF BERM	FG	FINISHED GRADE
ME	MATCH ELEVATION	DS	DROP SIDING

——XXX——	PROPOSED CONTOUR
– – –XXX– – –	EXISTING CONTOUR
RIDGE	RIDGE LINE
X.XX%	SLOPE AND FLOW DIRECTION
←	100-YEAR OVERLAND OVERFLOW ROUTE
⇦	DETENTION BASIN 100-YEAR EMERGENCY OVERLAND OVERFLOW ROUTE
—— · · · ←	PROPOSED SWALE
▨	RIP RAP (SEE DETAILS)
■■■■■■	LIMITS OF GRADING
— — — —	EASEMENT LINE
—— ——	BUILDING SETBACK LINE
▬ ▬ ▬	GRADING BLOWUP DETAIL
▨	DETECTABLE WARNING SURFACE
▨	PROPOSED RETAINING WALL
↥——↥	OVERLAND FLOOD ROUTE CROSS SECTION


TC 726.96
TC 726.55
726.66
TC 727.36
FL 727.00
2.00%
726.66
0.92%
2.00%
726.86
TC 727.58
FL 727.23
0.92%
2.00%
727.05
TC 727.74
FL 727.39
TC 728.16
TC 727.75
TC 727.77

ADA GRADING BLOWUP DETAIL
1" = 10'

KEY MAP


C3.1
C3.2
C3.3
C3.4
C3.5
C3.6

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

Kimley»Horn

570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847-260-7804
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

DETAILED GRADING & DRAINAGE PLAN

THE GROVE - AREA 1 (SINGLE FAMILY)

SUGAR GROVE, IL 60554

ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009
SHEET NUMBER
C3.5

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C3.1 DETAILED GRADING & DRAINAGE PLAN.dwg C3.5 Jul 01, 2025 9:32am by: Joe.Hannah

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove_il\2 Design\CAD\plansheets\Lot 1\C3.1 DETAILED GRADING & DRAINAGE PLAN.dwg C3.6 Jul 01, 2025 9:33am by: Joe.Hannah
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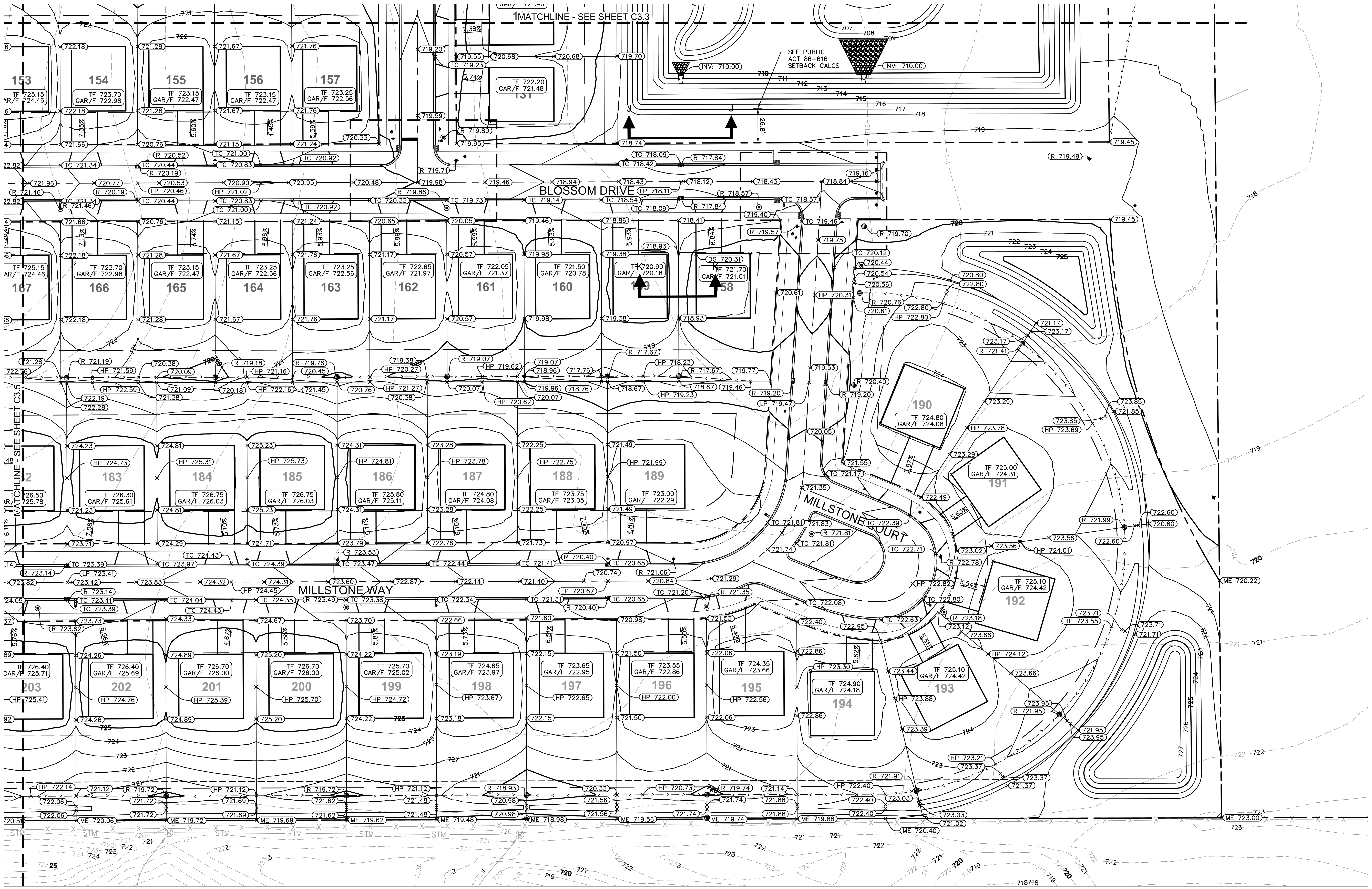
MATCHLINE - SEE SHEET C3.3
MATCHLINE - SEE SHEET C3.5
BLOSSOM DRIVE
MILLSTONE WAY
MILLSTONE COURT
SEE PUBLIC ACT 86-616 SETBACK CALCS
INV: 710.00
153
154
155
156
157
151
167
166
165
164
163
162
161
160
159
158
190
191
192
193
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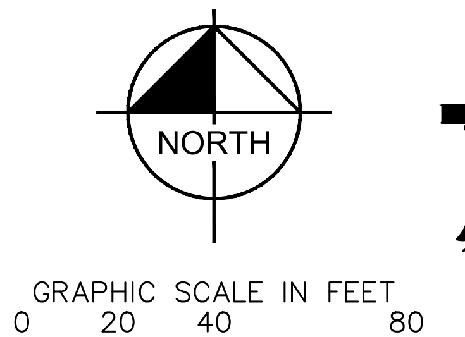
198
197
196
195
J
K


NORTH
GRAPHIC SCALE IN FEET
0
20
40
80

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GRADING NOTES

1. REFER TO SHEET C3.0 FOR ALL GRADING AND DRAINAGE NOTES AND SYMBOL LEGEND.
2. CURB INLET RIM ELEVATION LABELS ARE REFERENCING THE GUTTER FLOW LINE ELEVATION.

GRADING LEGEND

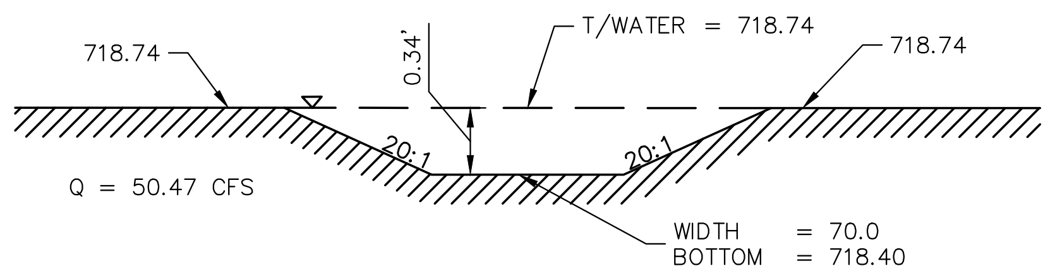
HP	=	HIGH POINT
LP	=	LOW POINT
FL	=	FLOW LINE
TC	=	TOP OF CURB
GAR/F	=	GARAGE FLOOR
TF	=	TOP OF FOUNDATION
T/B	=	TOP OF BERM
ME	=	MATCH ELEVATION
LO	=	LOOKOUT
WO	=	WALKOUT
R	=	RIM ELEVATION
TW	=	TOP OF WALL
BW	=	BOTTOM OF WALL
EW	=	END OF WALL
FG	=	FINISHED GRADE
DS	=	DROP SIDING

——XXX——	PROPOSED CONTOUR
– – –XXX– – –	EXISTING CONTOUR
___ RIDGE ___	RIDGE LINE
X.XX%	SLOPE AND FLOW DIRECTION
←	100–YEAR OVERLAND OVERFLOW ROUTE
⇦	DETENTION BASIN 100–YEAR EMERGENCY OVERLAND OVERFLOW ROUTE
—— · · · ←	PROPOSED SWALE
▨	RIP RAP (SEE DETAILS)
■■■■■■	LIMITS OF GRADING
— — — —	EASEMENT LINE
——— ———	BUILDING SETBACK LINE
▬ ▬ ▬	GRADING BLOWUP DETAIL
▒	DETECTABLE WARNING SURFACE
▨	PROPOSED RETAINING WALL
⊢——⊣	OVERLAND FLOOD ROUTE CROSS SECTION

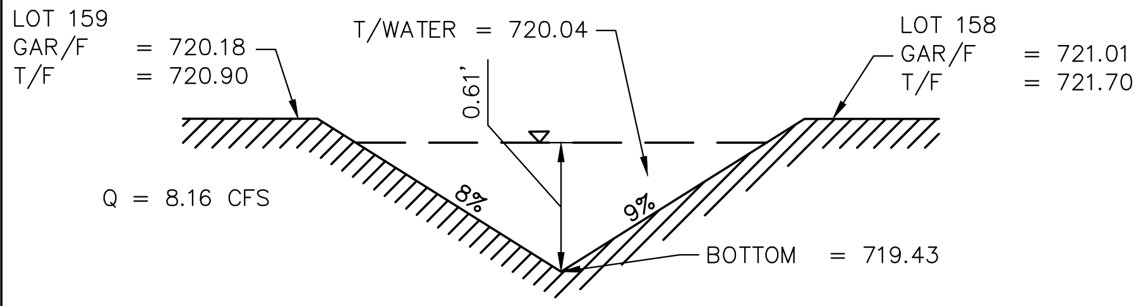
PUBLIC ACT 86–616 SETBACK CALCULATION

SETBACK = 10'+1.5(POND DEPTH)
POND DEPTH = 716.80–709.30 = 7.5'

SETBACK = 10'+1.5(7.5') = 21.25'

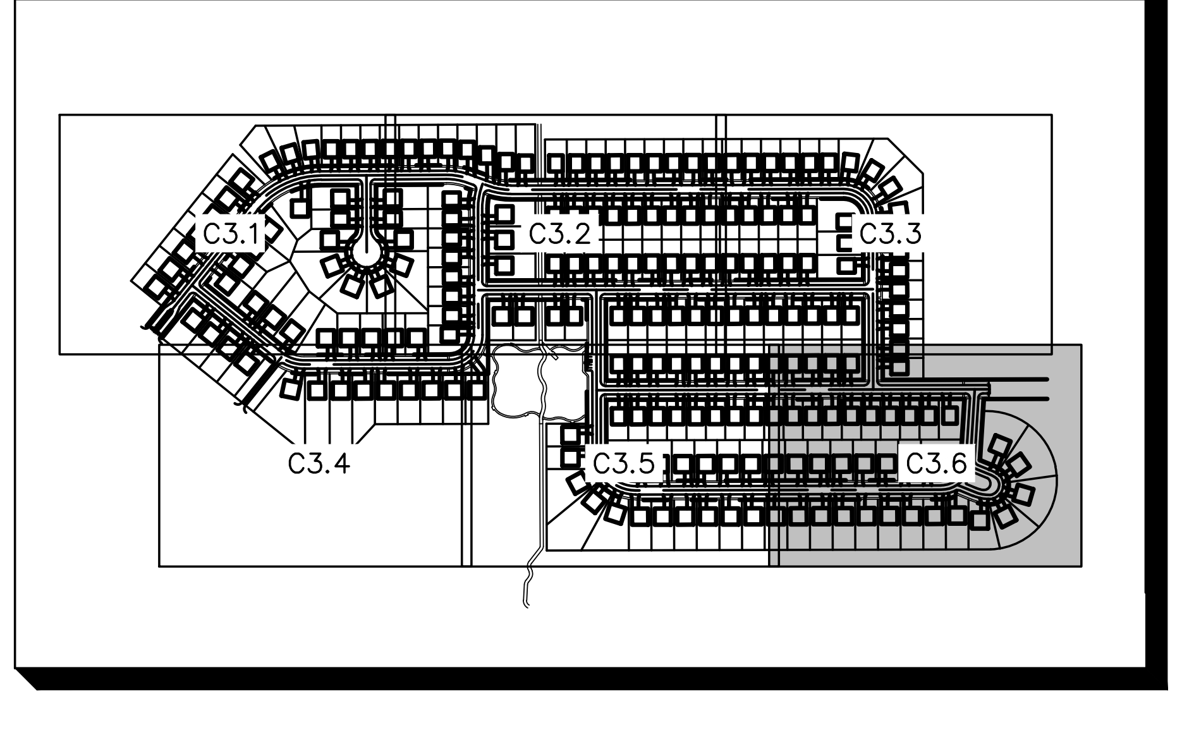

718.74
T/WATER = 718.74
718.74
0.34'
20:1
20:1
Q = 50.47 CFS
WIDTH = 70.0
BOTTOM = 718.40

CHANNEL OVERLAND FLOOD ROUTE DETAIL J-J
N.T.S.


LOT 159
GAR/F = 720.18
T/F = 720.90
T/WATER = 720.04
LOT 158
GAR/F = 721.01
T/F = 721.70
0.61'
8%
9%
Q = 8.16 CFS
BOTTOM = 719.43

CHANNEL OVERLAND FLOOD ROUTE DETAIL K-K
N.T.S.

KEY MAP


NORTH
C3.1
C3.2
C3.3
C3.4
C3.5
C3.6

No.	REVISIONS	DATE	BY
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2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

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PHONE: 847–260–7804
WWW.KIMLEY–HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

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SUGAR GROVE, IL 60554

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1/31/2025
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SHEET NUMBER

C3.6

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C3.7 DETAILED GRADING & DRAINAGE PLAN INTERSECTIONS.dwg C3.7 Jul 01, 2025 9:35am by: Joe.Hannah
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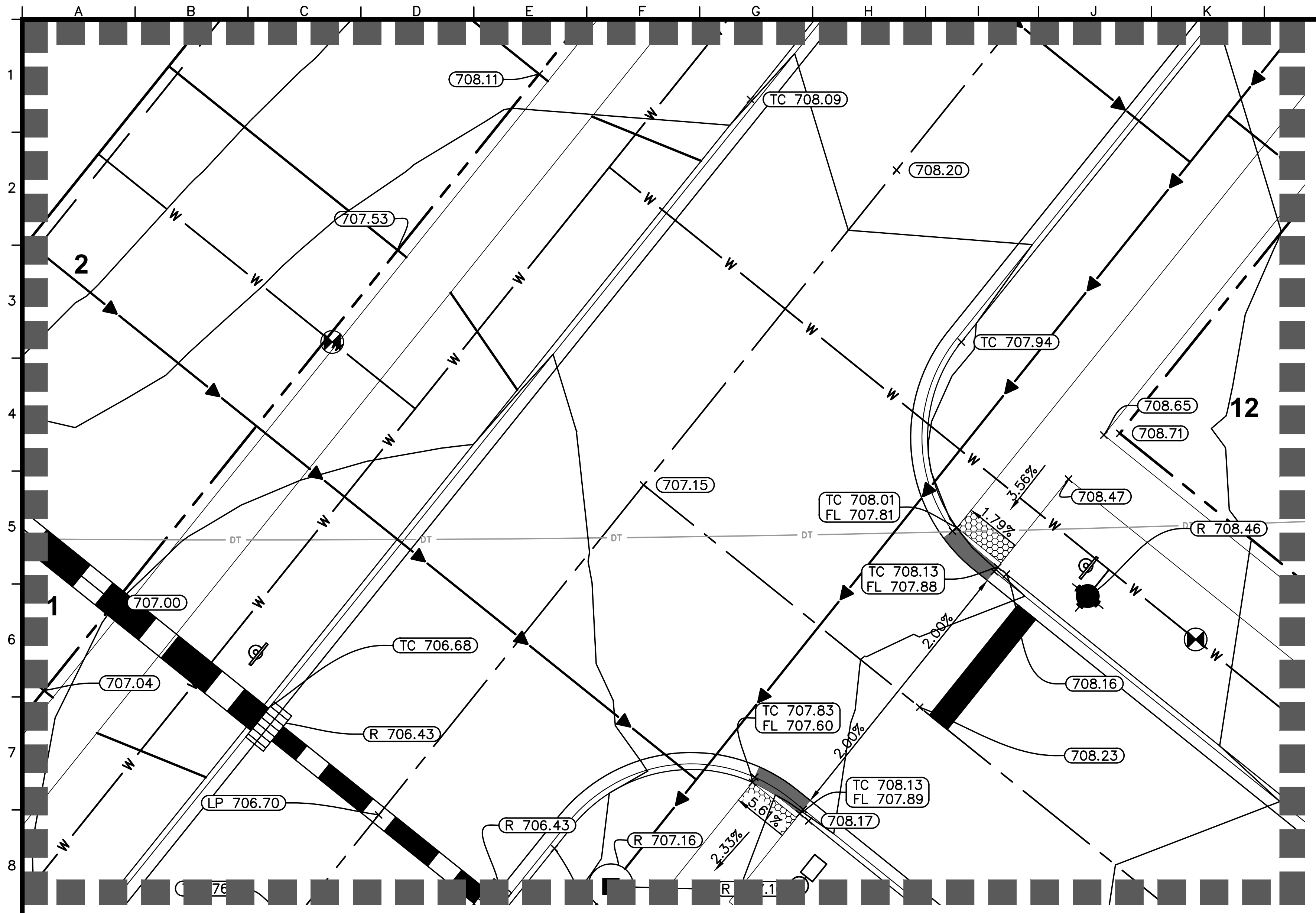
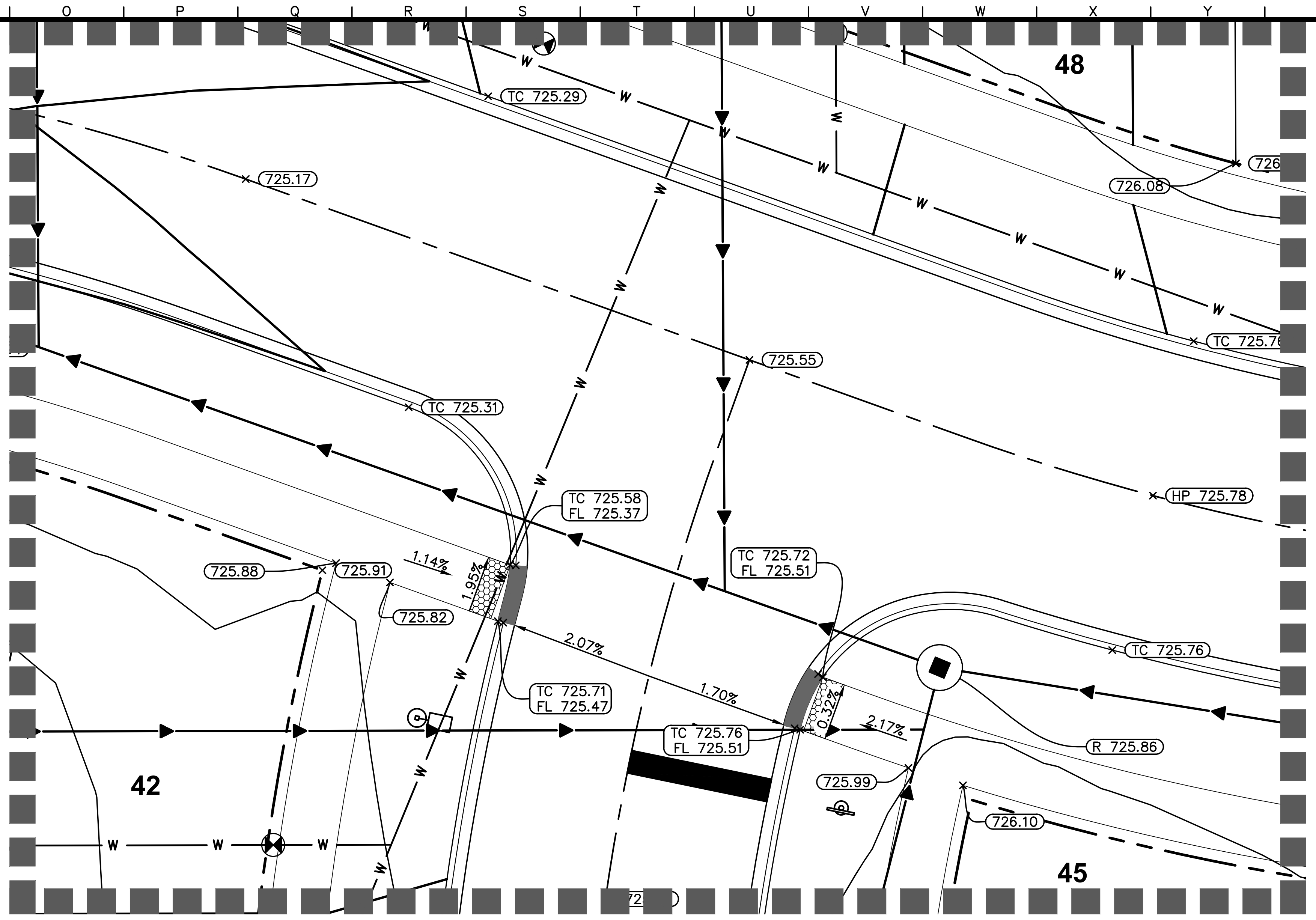

708.11
TC 708.09
708.20
707.53
2
TC 707.94
708.65
708.71
12
707.15
TC 708.01
FL 707.81
1.56%
708.47
1.79%
R 708.46
TC 708.13
FL 707.88
1
707.00
TC 706.68
2.00%
708.16
707.04
R 706.43
TC 707.83
FL 707.60
2.00%
708.23
TC 708.13
FL 707.89
LP 706.70
R 706.43
R 707.16
708.17
5.61%
2.13%

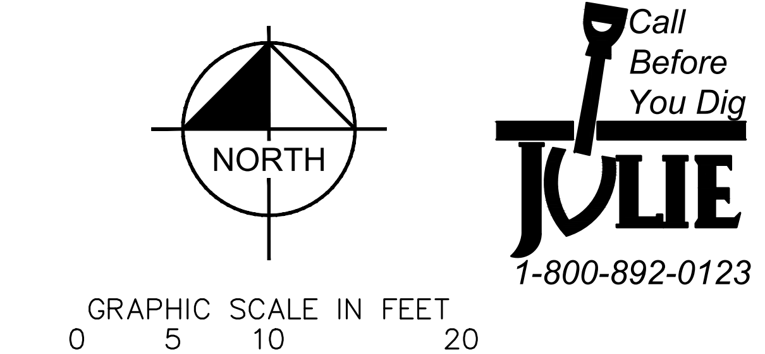
SUGAR MAPLE WAY AND SUNSET GROVE

1" = 10'


TC 725.29
48
726.08
725.17
725.55
TC 725.70
TC 725.31
HP 725.78
TC 725.58
FL 725.37
1.14%
1.95%
725.88
725.91
725.82
TC 725.72
FL 725.51
2.07%
TC 725.71
FL 725.47
1.70%
TC 725.76
FL 725.51
0.32%
2.17%
TC 725.76
R 725.86
42
725.99
726.10
45

SUGAR MAPLE WAY AND SUMMER TREE LANE

1" = 10'


NORTH
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GRAPHIC SCALE IN FEET
0
5
10
20

GRADING NOTES

1. REFER TO SHEET C3.0 FOR ALL GRADING AND DRAINAGE NOTES AND SYMBOL LEGEND.
2. CURB INLET RIM ELEVATION LABELS ARE REFERENCING THE GUTTER FLOW LINE ELEVATION.

GRADING LEGEND

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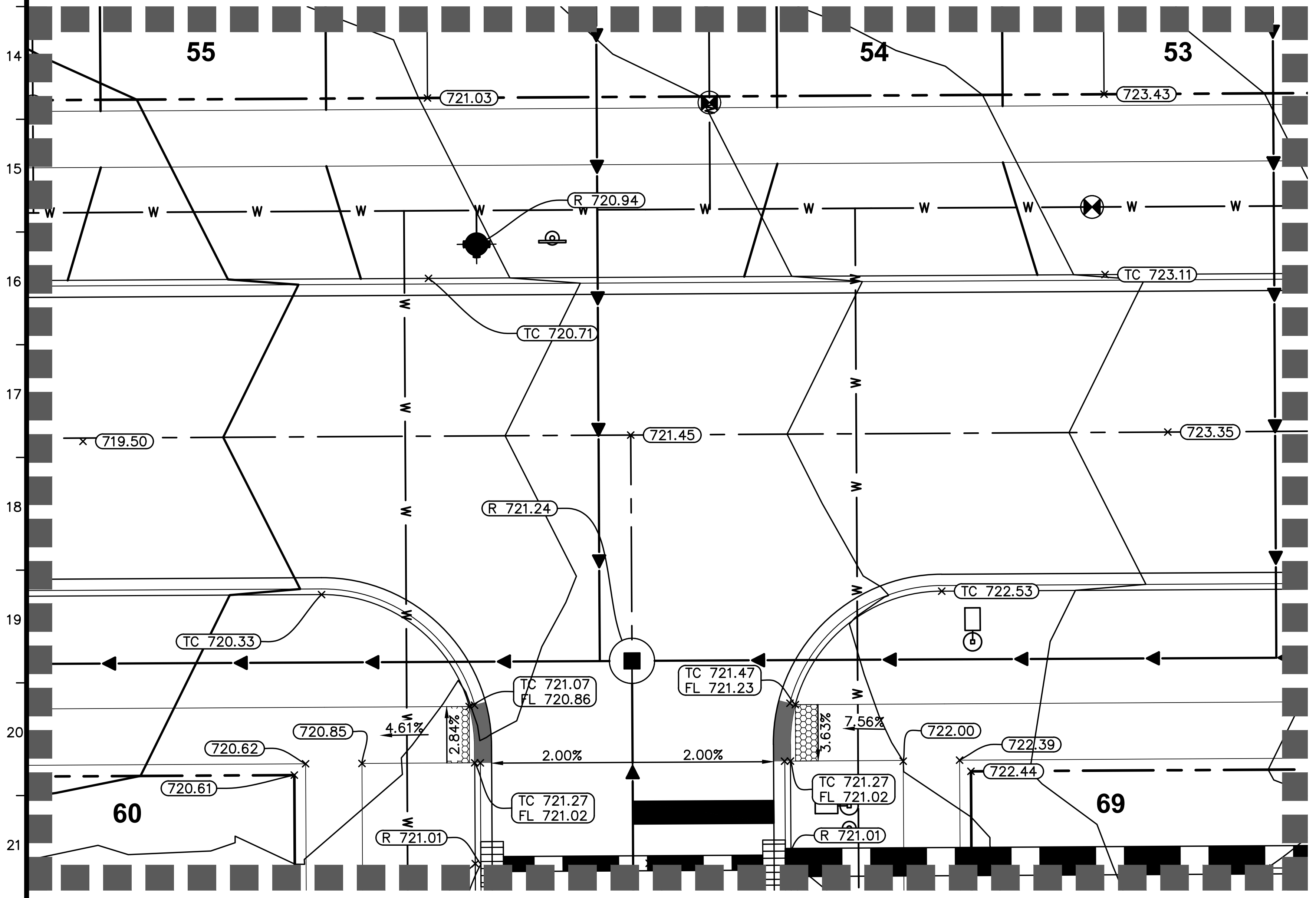
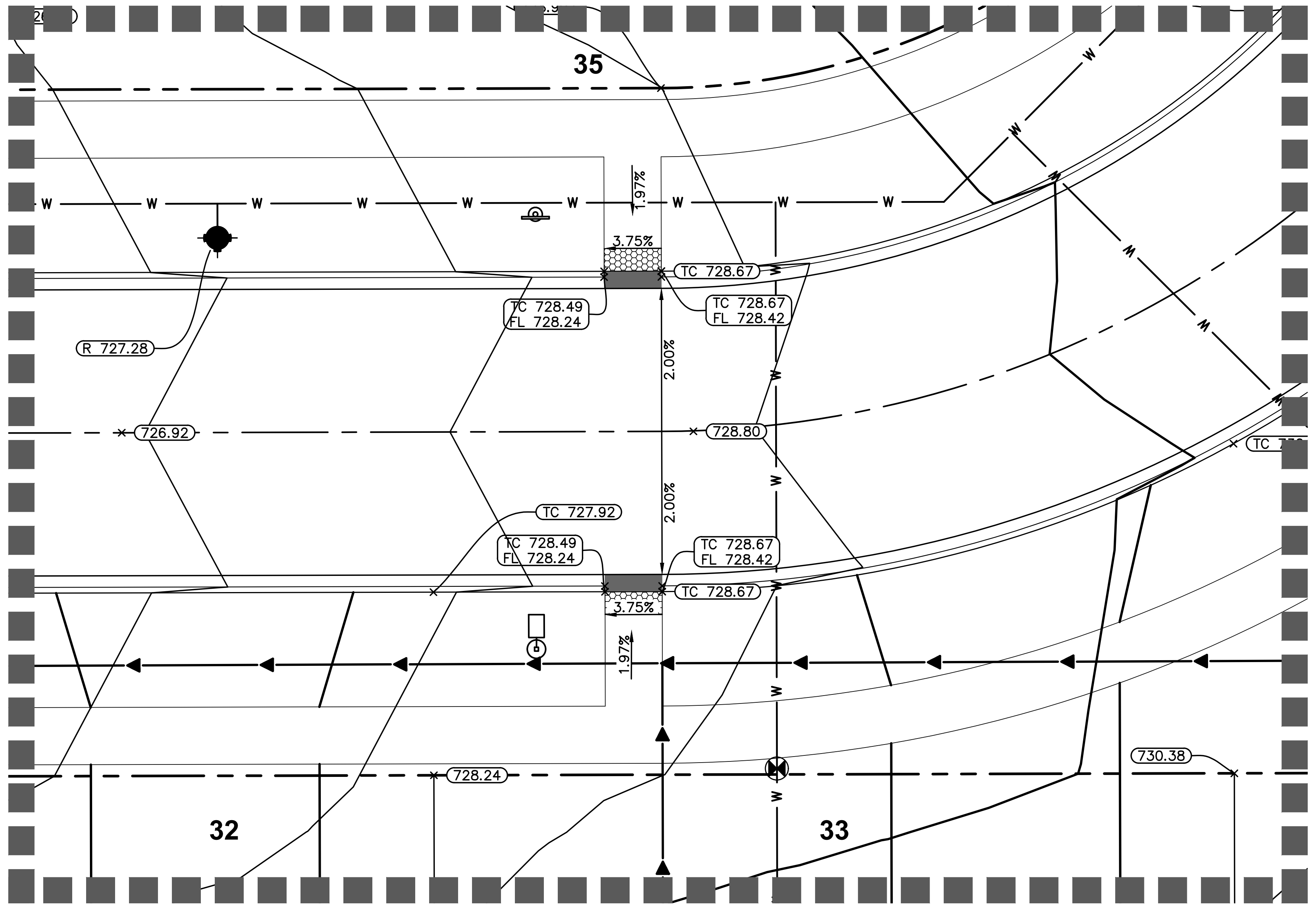
LP	=	LOW POINT	WO	=	WALKOUT
FL	=	FLOW LINE	R	=	RIM ELEVATION
TC	=	TOP OF CURB	TW	=	TOP OF WALL
GAR/F	=	GARAGE FLOOR	BW	=	BOTTOM OF WALL
TF	=	TOP OF FOUNDATION	EW	=	END OF WALL
T/B	=	TOP OF BERM	FG	=	FINISHED GRADE
ME	=	MATCH ELEVATION	DS	=	DROP SIDING

XXX	PROPOSED CONTOUR
XXX	EXISTING CONTOUR
RIDGE	RIDGE LINE
X.XX%	SLOPE AND FLOW DIRECTION
←	100-YEAR OVERLAND OVERFLOW ROUTE
⇦	DETENTION BASIN 100-YEAR EMERGENCY OVERLAND OVERFLOW ROUTE
	PROPOSED SWALE
▨	RIP RAP (SEE DETAILS)
	LIMITS OF GRADING
	EASEMENT LINE
	BUILDING SETBACK LINE
	GRADING BLOWUP DETAIL
▨	DETECTABLE WARNING SURFACE
	PROPOSED RETAINING WALL
	OVERLAND FLOOD ROUTE CROSS SECTION


55
54
53
721.03
723.43
R 720.94
TC 723.11
TC 720.71
719.50
721.45
723.35
R 721.24
TC 722.53
TC 720.33
TC 721.07
FL 720.86
TC 721.47
FL 721.23
720.85
4.61%
2.84%
3.63%
7.56%
722.00
720.62
2.00%
2.00%
722.39
722.44
720.61
TC 721.27
FL 721.02
TC 721.27
FL 721.02
69
60
R 721.01
R 721.01

SILVER BRANCH LANE AND SUGAR MAPLE WAY

1" = 10'


35
1.97%
3.75%
TC 728.67
TC 728.49
FL 728.24
TC 728.67
FL 728.42
R 727.28
2.00%
726.92
728.80
TC 727.92
2.00%
TC 728.49
FL 728.24
TC 728.67
FL 728.42
3.75%
TC 728.67
1.97%
728.24
730.38
32
33

SUNSET GROVE

1" = 10'

UTILITY LEGEND

ELEC	PROPOSED UNDERGROUND ELECTRIC LINE
GAS	GAS LINE (BY GAS COMPANY)
TEL	PROPOSED PHONE LINE
	PROPOSED STORM SEWER LINE
●	PROPOSED OPEN LID STORM STRUCTURE (PAVEMENT USE NEENAH R-2540) (GRASS USE NEENAH R-4340-B BEEHIVE)
⊙	PROPOSED CLOSED LID STORM STRUCTURE (PAVEMENT USE NEENAH R-1713) (GRASS USE NEENAH R-1786)
▥	PROPOSED COMBINATION CURB INLET (B6.12 C&G USE NEENAH R-3281-A)
	PROPOSED FLARED END SECTION
	PROPOSED SANITARY SEWER LINE
⊡	PROPOSED SANITARY MANHOLE
•	PROPOSED STORM/SANITARY CLEANOUT
W	PROPOSED WATER LINE
	PROPOSED VALVE VAULT
	PROPOSED VALVE BOX
◆	PROPOSED FIRE HYDRANT
	PROPOSED LIGHT POLE
T	PROPOSED TRANSFORMER PAD (FOR REFERENCE ONLY)
▨	RIP RAP (SEE DETAILS)

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
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1	PER VILLAGE COMMENT	04/21/25	JRH

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570 LAKE COOK ROAD, SUITE 200
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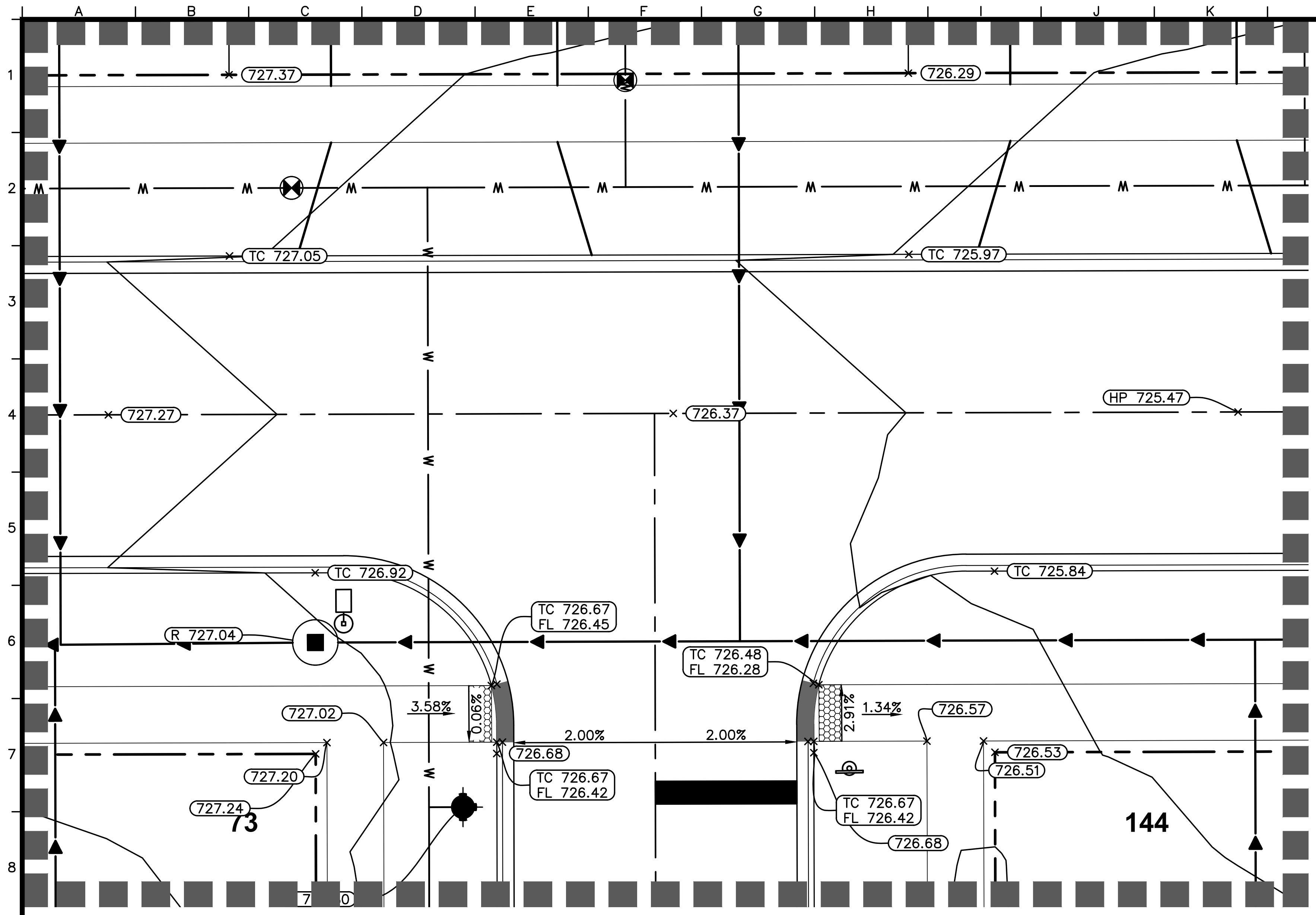
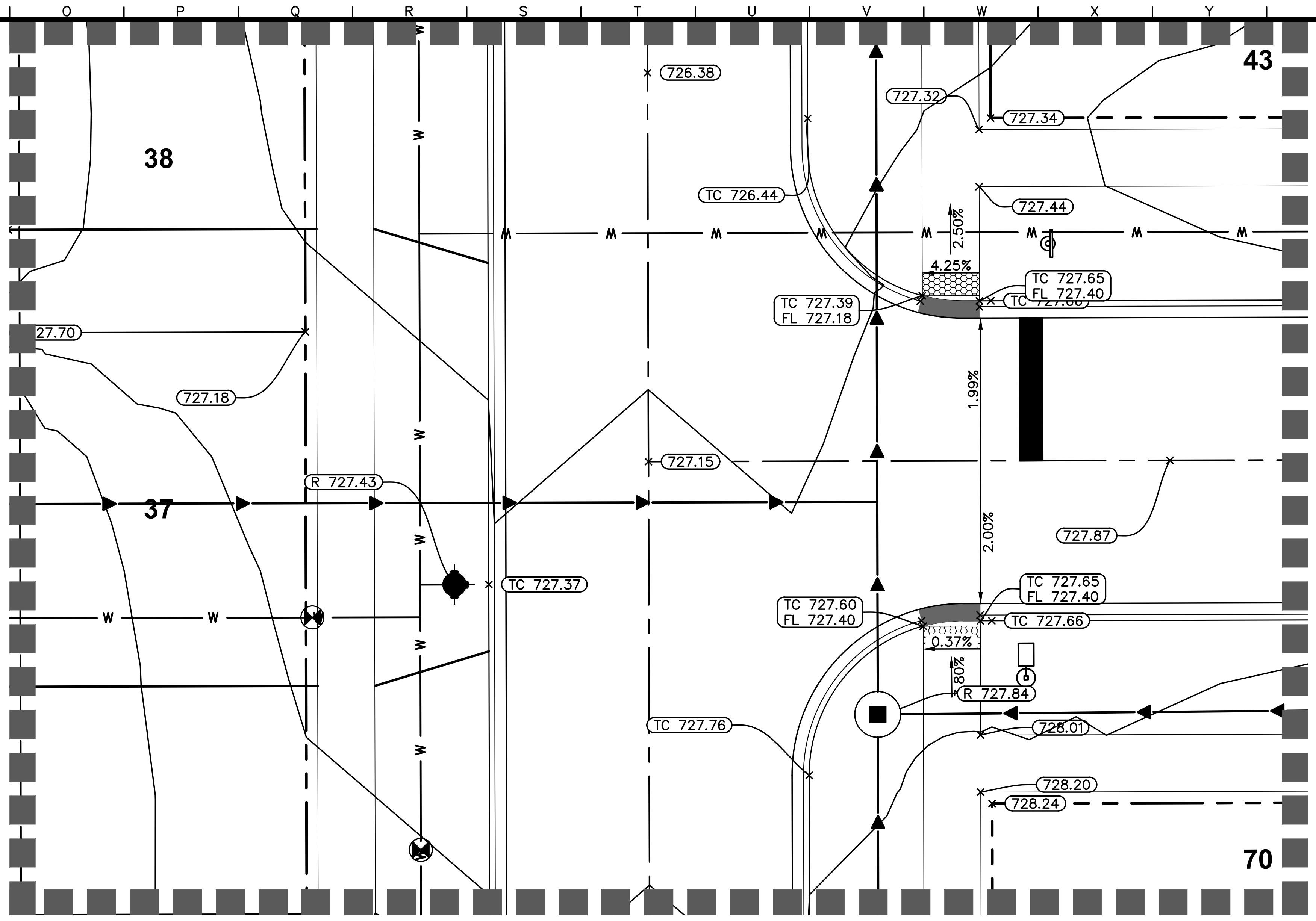

727.37
726.29
TC 727.05
TC 725.97
727.27
726.37
HP 725.47
TC 726.92
TC 725.84
R 727.04
TC 726.67
FL 726.45
TC 726.48
FL 726.28
727.02
3.58%
0.06%
2.91%
1.34%
726.57
2.00%
2.00%
726.68
726.53
726.51
727.20
TC 726.67
FL 726.42
TC 726.67
FL 726.42
727.24
73
726.68
144

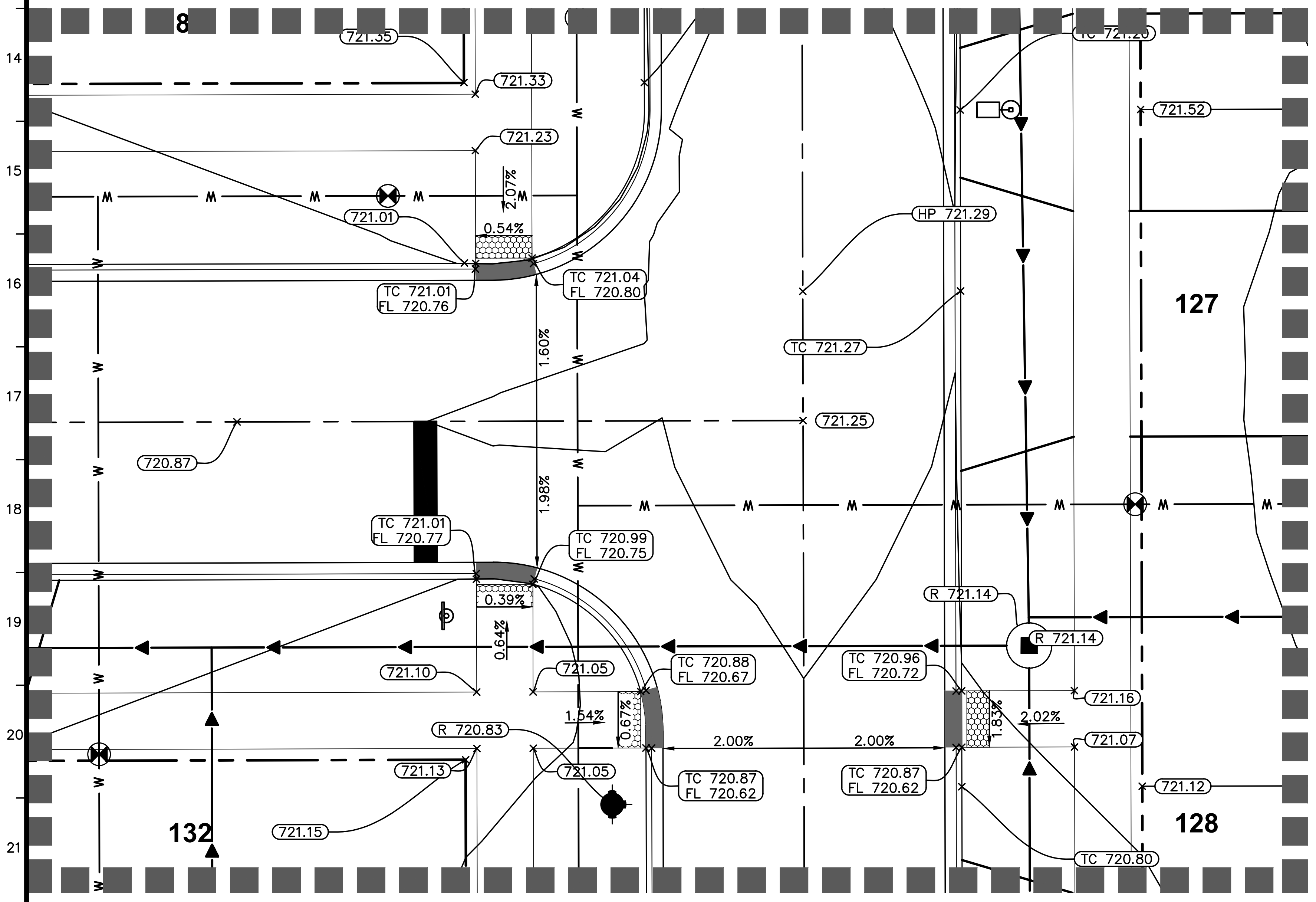
MISTY WOOD TRAIL AND MILLISTONE WAY

1" = 10'


726.38
43
727.32
727.34
38
TC 726.44
727.44
2.50%
4.25%
TC 727.65
FL 727.40
TC 727.39
FL 727.18
27.70
727.18
1.99%
727.15
R 727.43
37
2.00%
727.87
TC 727.37
TC 727.60
FL 727.40
TC 727.65
FL 727.40
TC 727.66
0.37%
1.80%
R 727.84
TC 727.76
728.01
728.20
728.24
70

SUMMER TREE LANE AND MISTY WOOD TRAIL

1" = 10'


8
721.35
721.33
721.52
721.23
2.07%
721.01
0.54%
HP 721.29
TC 721.01
FL 720.76
TC 721.04
FL 720.80
127
1.60%
TC 721.27
721.25
720.87
1.98%
TC 721.01
FL 720.77
TC 720.99
FL 720.75
0.39%
0.64%
R 721.14
R 721.14
721.10
721.05
TC 720.88
FL 720.67
TC 720.96
FL 720.72
721.16
1.54%
0.67%
1.83%
2.02%
R 720.83
2.00%
2.00%
721.07
721.13
721.05
TC 720.87
FL 720.62
TC 720.87
FL 720.62
721.12
132
721.15
128
TC 720.80

SUGAR MAPLE WAY AND MISTY WOOD TRAIL

1" = 10'

NORTH

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GRAPHIC SCALE IN FEET
0 # ## ##

GRADING NOTES

1. REFER TO SHEET C3.0 FOR ALL GRADING AND DRAINAGE NOTES AND SYMBOL LEGEND.
2. CURB INLET RIM ELEVATION LABELS ARE REFERENCING THE GUTTER FLOW LINE ELEVATION.

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HP = HIGH POINT
LP = LOW POINT
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TF = TOP OF FOUNDATION
T/B = TOP OF BERM
ME = MATCH ELEVATION
LO = LOOKOUT
WO = WALKOUT
R = RIM ELEVATION
TW = TOP OF WALL
BW = BOTTOM OF WALL
EW = END OF WALL
FG = FINISHED GRADE
DS = DROP SIDING

——XXX——	PROPOSED CONTOUR
– – –XXX– – –	EXISTING CONTOUR
—— RIDGE ——	RIDGE LINE
X.XX%	SLOPE AND FLOW DIRECTION
←	100-YEAR OVERLAND OVERFLOW ROUTE
⇦	DETENTION BASIN 100-YEAR EMERGENCY OVERLAND OVERFLOW ROUTE
—— · · · ←——	PROPOSED SWALE
▩	RIP RAP (SEE DETAILS)
▪▪▪▪▪▪▪▪▪▪	LIMITS OF GRADING
— — — — —	EASEMENT LINE
——— ———	BUILDING SETBACK LINE
▬ ▬ ▬	GRADING BLOWUP DETAIL
▒	DETECTABLE WARNING SURFACE
▨	PROPOSED RETAINING WALL
↥——↥	OVERLAND FLOOD ROUTE CROSS SECTION

UTILITY LEGEND

——ELEC——	PROPOSED UNDERGROUND ELECTRIC LINE
——GAS——	GAS LINE (BY GAS COMPANY)
——TEL——	PROPOSED PHONE LINE
▬ ▬ ▬	PROPOSED STORM SEWER LINE
◍	PROPOSED OPEN LID STORM STRUCTURE (PAVEMENT USE NEENAH R-2540) (GRASS USE NEENAH R-4340-B BEEHIVE)
◉	PROPOSED CLOSED LID STORM STRUCTURE (PAVEMENT USE NEENAH R-1713) (GRASS USE NEENAH R-1786)
▥	PROPOSED COMBINATION CURB INLET (B6.12 C&G USE NEENAH R-3281-A)
⊳	PROPOSED FLARED END SECTION
——▶——	PROPOSED SANITARY SEWER LINE
▣	PROPOSED SANITARY MANHOLE
•	PROPOSED STORM/SANITARY CLEANOUT
—— W —— W ——	PROPOSED WATER LINE
⊗	PROPOSED VALVE VAULT
⊗	PROPOSED VALVE BOX
◆	PROPOSED FIRE HYDRANT
⚲	PROPOSED LIGHT POLE
T	PROPOSED TRANSFORMER PAD (FOR REFERENCE ONLY)
▩	RIP RAP (SEE DETAILS)

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

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570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847-260-7804
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

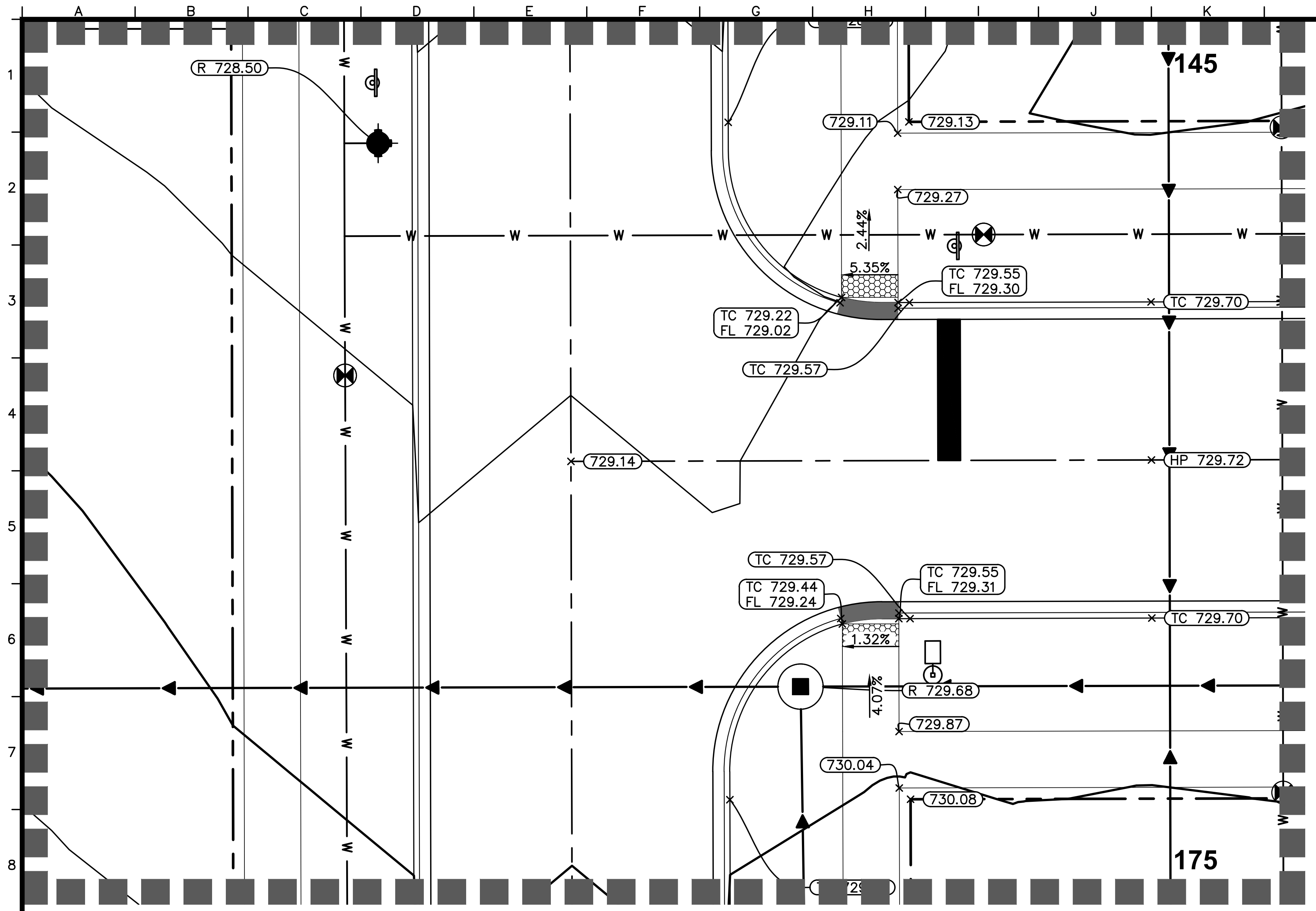
SUGAR GROVE, LLC

DETAILED GRADING & DRAINAGE PLAN INTERSECTIONS

THE GROVE - AREA 1
(SINGLE FAMILY)
SUGAR GROVE, IL 60554

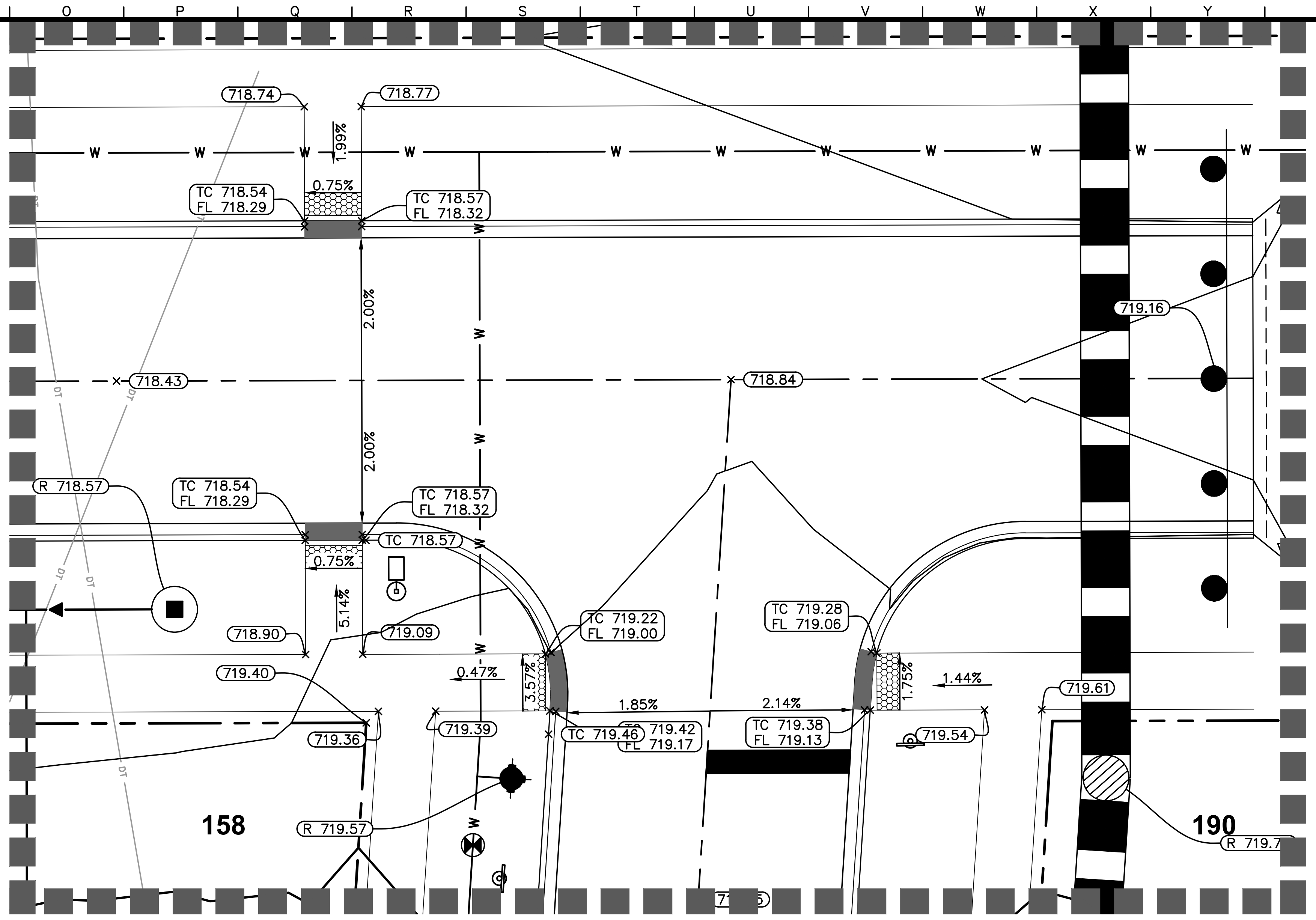
ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009
SHEET NUMBER
C3.8

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C3.7 DETAILED GRADING & DRAINAGE PLAN INTERSECTIONS.dwg C3.8 Jul 01, 2025 9:35am by: Joe.Hannah


R 728.50
145
729.11
729.13
729.27
2.44%
5.35%
TC 729.55
FL 729.30
TC 729.22
FL 729.02
TC 729.70
TC 729.57
729.14
HP 729.72
TC 729.57
TC 729.44
FL 729.24
TC 729.55
FL 729.31
1.32%
TC 729.70
4.07%
R 729.68
729.87
730.04
730.08
175

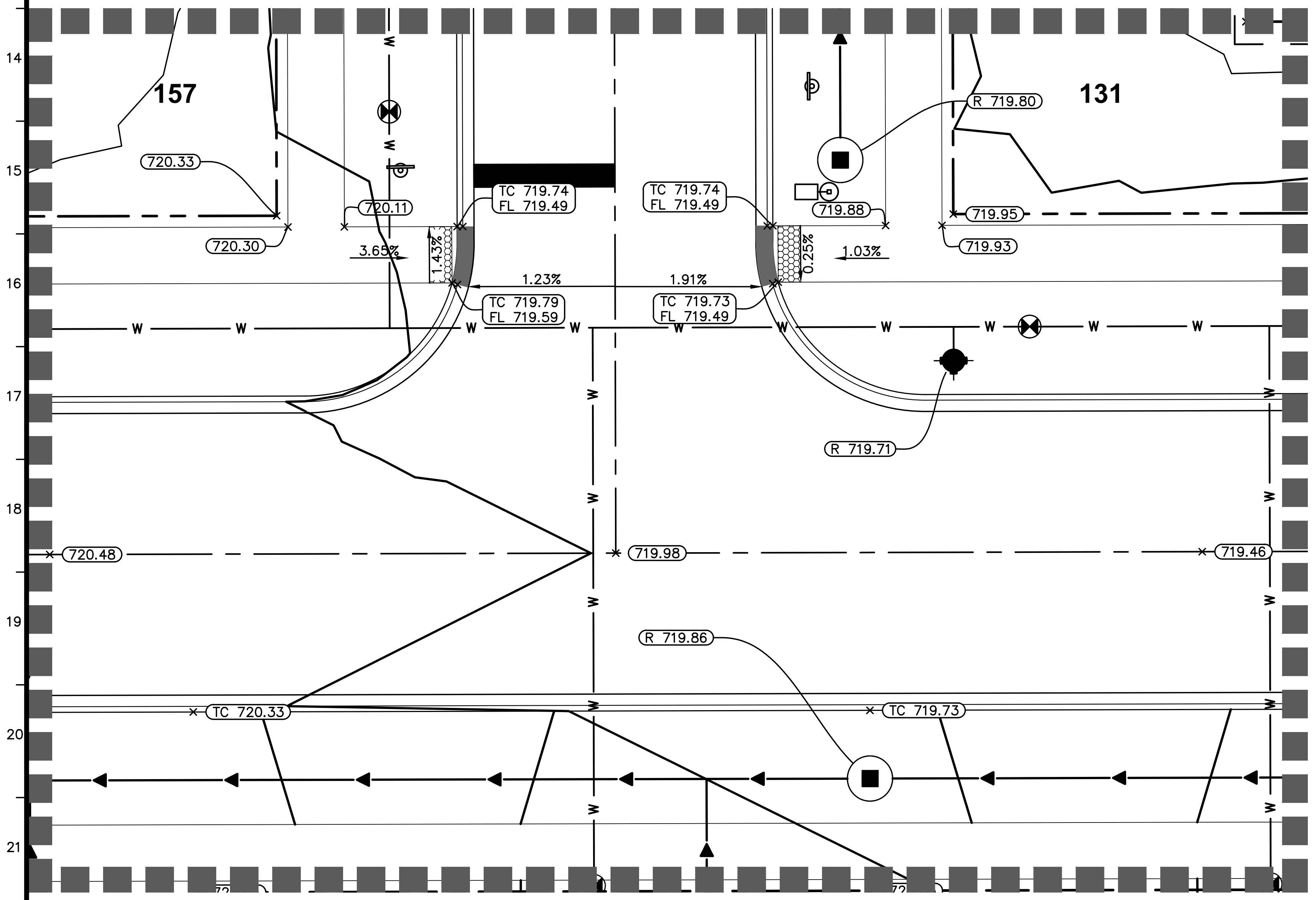
MILLISTONE WAY AND PRAIRIE BLOSSOM DRIVE - WEST

1" = 10'


718.74
718.77
1.99%
TC 718.54
FL 718.29
0.75%
TC 718.57
FL 718.32
2.00%
719.16
718.43
2.00%
718.84
R 718.57
TC 718.54
FL 718.29
TC 718.57
FL 718.32
TC 718.57
0.75%
5.14%
718.90
719.09
TC 719.22
FL 719.00
TC 719.28
FL 719.06
719.40
0.47%
3.57%
1.85%
2.14%
1.75%
1.44%
719.61
719.36
719.39
TC 719.46
719.42
FL 719.17
TC 719.38
FL 719.13
719.54
158
R 719.57
190

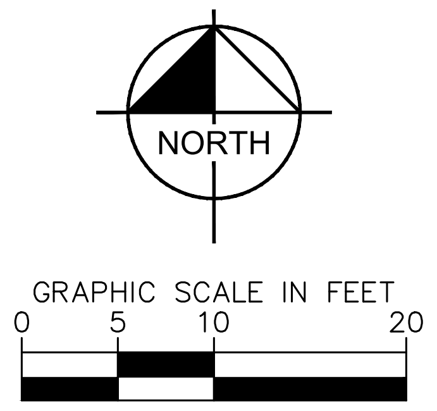
PRAIRIE BLOSSOM DRIVE AND MILLISTONE WAY - EAST

1" = 10'


157
131
R 719.80
720.33
TC 719.74
FL 719.49
TC 719.74
FL 719.49
720.11
719.88
719.95
720.30
3.65%
1.43%
0.25%
1.03%
719.93
1.23%
1.91%
TC 719.79
FL 719.59
TC 719.73
FL 719.49
R 719.71
720.48
719.98
719.46
R 719.86
TC 720.33
TC 719.73

SUGAR MAPLE WAY AND PRAIRIE BLOSSOM DRIVE

1" = 10'


NORTH
GRAPHIC SCALE IN FEET
0
5
10
20

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GRADING NOTES

1. REFER TO SHEET C3.0 FOR ALL GRADING AND DRAINAGE NOTES AND SYMBOL LEGEND.
2. CURB INLET RIM ELEVATION LABELS ARE REFERENCING THE GUTTER FLOW LINE ELEVATION.

GRADING LEGEND

HP = HIGH POINT
LP = LOW POINT
FL = FLOW LINE
TC = TOP OF CURB
GAR/F = GARAGE FLOOR
TF = TOP OF FOUNDATION
T/B = TOP OF BERM
ME = MATCH ELEVATION
LO = LOOKOUT
WO = WALKOUT
R = RIM ELEVATION
TW = TOP OF WALL
BW = BOTTOM OF WALL
EW = END OF WALL
FG = FINISHED GRADE
DS = DROP SIDING

——XXX——	PROPOSED CONTOUR
– – –XXX– – –	EXISTING CONTOUR
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—— · · · ←	PROPOSED SWALE
▩	RIP RAP (SEE DETAILS)
■ ■ ■ ■ ■	LIMITS OF GRADING
— — — —	EASEMENT LINE
—— ——	BUILDING SETBACK LINE
▬ ▬ ▬	GRADING BLOWUP DETAIL
▒	DETECTABLE WARNING SURFACE
▨	PROPOSED RETAINING WALL
├──┤	OVERLAND FLOOD ROUTE CROSS SECTION

UTILITY LEGEND

—— ELEC ——	PROPOSED UNDERGROUND ELECTRIC LINE
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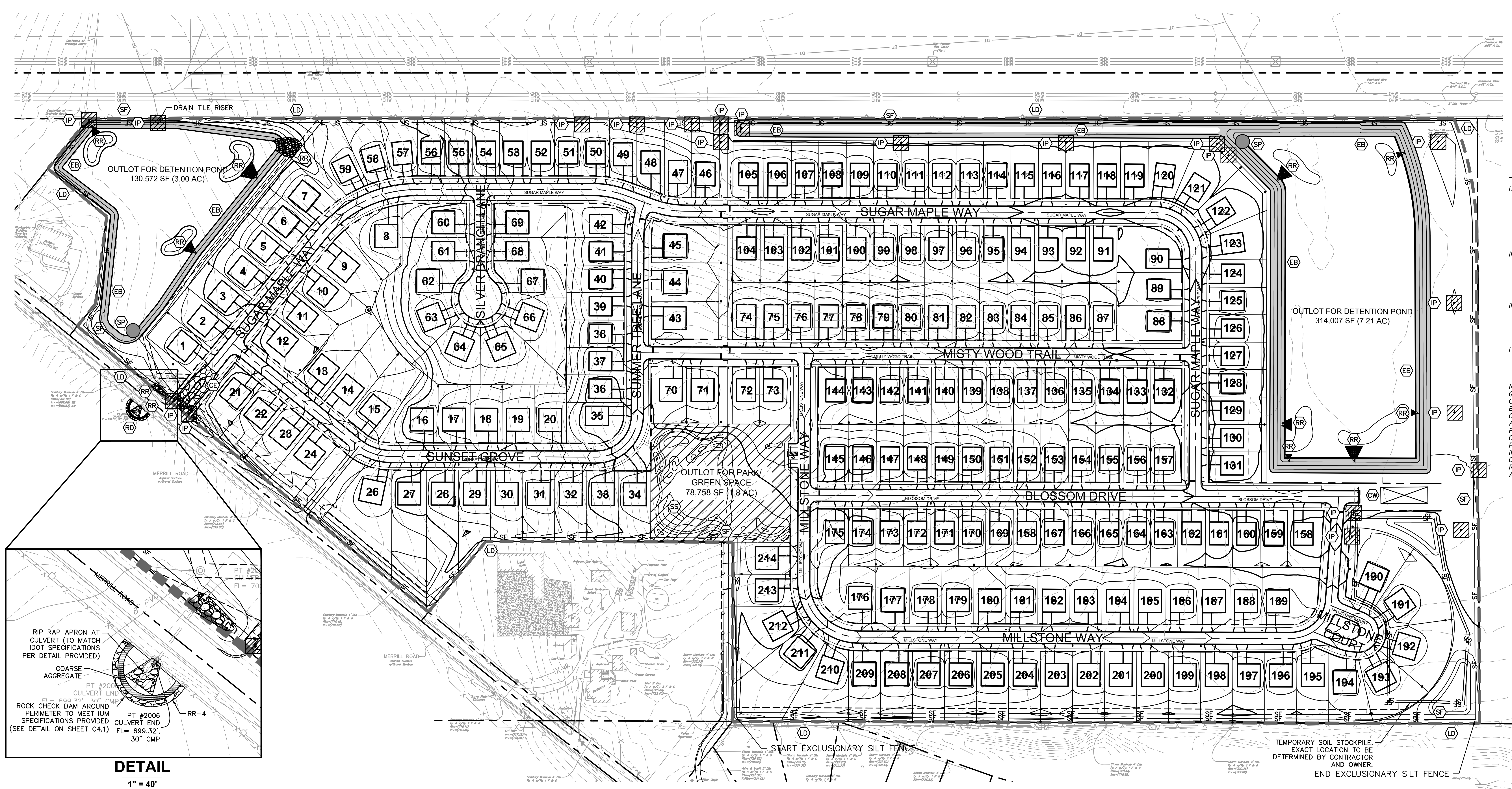
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314,007 SF (7.21 AC)
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78,758 SF (1.8 AC)
SUGAR MAPLE WAY
SILVER BRANCH LANE
SUMMER TREE LANE
MISTY WOOD TRAIL
SUNSET GROVE
BLOSSOM DRIVE
MILLSTONE WAY
MILLSTONE COURT
MERRILL ROAD
START EXCLUSIONARY SILT FENCE
TEMPORARY SOIL STOCKPILE. EXACT LOCATION TO BE DETERMINED BY CONTRACTOR AND OWNER.
END EXCLUSIONARY SILT FENCE
RIP RAP APRON AT CULVERT (TO MATCH IDOT SPECIFICATIONS PER DETAIL PROVIDED)
COARSE AGGREGATE
ROCK CHECK DAM AROUND PERIMETER TO MEET IUM SPECIFICATIONS PROVIDED (SEE DETAIL ON SHEET C4.1)
PT #2006 CULVERT END FL= 699.32', 30" CMP
RR-4

DETAIL

1" = 40'

EROSION CONTROL SCHEDULE AND SEQUENCING:

I.	ROUGH GRADING	CONSTRUCTION ENTRANCE/EXIT, SILT FENCE PROTECTION, CONCRETE WASHOUT AREA AND TREE PROTECTION SHALL BE INSTALLED PRIOR TO THE INITIATION OF ROUGH GRADING, AS NEEDED. TEMPORARY EROSION CONTROL MEASURES TO BE INSTALLED UPON COMPLETION OF ROUGH GRADING AND AS NECESSARY THROUGHOUT CONSTRUCTION.
II.	UTILITY INSTALLATION	ALL PRIOR EROSION CONTROL MEASURES INSTALLED ABOVE TO BE MAINTAINED AS NECESSARY DURING UTILITY INSTALLATION. STORM STRUCTURE INLET PROTECTION SHALL BE INSTALLED AS STORM DRAINAGE SYSTEM IS CONSTRUCTED.
III.	PAVING	ALL PRIOR EROSION CONTROL MEASURES INSTALLED ABOVE TO BE MAINTAINED AS NECESSARY DURING PAVING AND THROUGHOUT THE REMAINDER OF THE PROJECT.
IV.	FINAL GRADING/SOIL STABILIZATION/ LANDSCAPING	ALL TEMPORARY EROSION CONTROL MEASURES TO BE REMOVED AT THE CONCLUSION OF THE PROJECT AS DIRECTED BY THE LOCAL MUNICIPALITY.

NOTE: THE SEQUENCE OF CONSTRUCTION SHOWN ABOVE IS A GENERAL OVERVIEW AND IS INTENDED TO CONVEY THE GENERAL CONCEPTS OF THE EROSION CONTROL DESIGN AND SHOULD NOT BE RELIED UPON FOR CONSTRUCTION PURPOSES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETAILED PHASING AND CONSTRUCTION SEQUENCING NECESSARY TO CONSTRUCT THE PROPOSED IMPROVEMENTS INCLUDED IN THESE PLANS. THE CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING IMMEDIATELY, PRIOR TO AND/OR DURING CONSTRUCTION IF ANY ADDITIONAL INFORMATION ON THE CONSTRUCTION SEQUENCE IS NECESSARY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLYING WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND ALL OTHER APPLICABLE LAWS.

EROSION CONTROL NOTES

1. CONSTRUCTION ENTRANCE SHALL BE LOCATED SO AS TO PROVIDE THE LEAST AMOUNT OF DISTURBANCE TO THE FLOW OF TRAFFIC IN AND OUT OF THE SITE. ADDITIONALLY, CONSTRUCTION ENTRANCE SHALL BE LOCATED TO COINCIDE WITH THE PHASING OF THE PAVEMENT REPLACEMENT.
2. POST CONSTRUCTION STORM WATER POLLUTION CONTROL MEASURES INCLUDE STABILIZATION BY PERMANENT PAVING, DRAINAGE SYSTEM STRUCTURE, OR LANDSCAPING.
3. TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT THE EARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. AS AN EXAMPLE, PERIMETER SILT FENCE SHALL BE INSTALLED BEFORE COMMENCEMENT OF ANY GRADING ACTIVITIES. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED UNTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY LANDSCAPING, THE BUILDING(S), AND SITE PAVING.
4. BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER. FOR EXAMPLE: SILT FENCES LOCATED AT TOE OF SLOPE AND INLET PROTECTION FOR INLETS RECEIVING SEDIMENT FROM SITE RUN-OFF.
5. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
6. ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE REVIEWING ENGINEER, ENVIRONMENTAL SPECIALIST, OR ARBORIST AS APPROPRIATE. MAJOR REVISIONS MUST BE APPROVED BY THE PLANNING AND DEVELOPMENT DEPARTMENT AND THE DRAINAGE UTILITY DEPARTMENT. MINOR CHANGES OR ADDITIONAL CONTROL MEASURES TO BE MADE AS FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES AT NO ADDITIONAL COST TO THE OWNER.
7. CONTRACTOR SHALL PLACE EROSION CONTROL BLANKET (NORTH AMERICAN GREEN S150BN OR APPROVED EQUAL) ON ALL SITE AREAS WITH SLOPES GREATER THAN 4:1, AND IN THE BOTTOM AND SIDE SLOPES OF ALL SWALES.
8. PRIOR TO FINAL ACCEPTANCE, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.
9. PERMANENT, FINAL PLANT COVERING OR STRUCTURES SHALL BE INSTALLED PRIOR TO FINAL ACCEPTANCE.
10. ALL CONTROL DEVICES THAT FUNCTION SIMILARLY TO SILT FENCE OR FIBER ROLLS MUST BE REPAIRED, REPLACED OR SUPPLEMENTED WITH EFFECTIVE CONTROLS WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES ONE-THIRD THE HEIGHT OF THE DEVICE. THESE REPAIRS MUST BE MADE WITHIN 24 HOURS OF THE RAINFALL EVENT OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.
11. ALL SEDIMENT DELTAS AND DEPOSITS MUST BE REMOVED FROM SURFACE WATERS, DRAINAGE WAYS, CATCH BASINS AND OTHER DRAINAGE SYSTEMS. ALL AREAS WHERE SEDIMENT REMOVAL RESULTED IN EXPOSED SOIL MUST BE RESTABILIZED. THE REMOVAL AND STABILIZATION MUST TAKE PLACE IMMEDIATELY, BUT NO MORE THAN 7 DAYS AFTER THE RAINFALL EVENT UNLESS PRECLUDED BY LEGAL, REGULATORY OR PHYSICAL ACCESS CONSTRAINTS. ALL REASONABLE EFFORTS MUST BE USED TO OBTAIN ACCESS. ONCE ACCESS IS OBTAINED, REMOVAL AND STABILIZATION MUST TAKE PLACE IMMEDIATELY, BUT NO MORE THAN 7 DAYS LATER. CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL APPROPRIATE AUTHORITIES AND RECEIVING THE APPLICABLE PERMITS PRIOR TO CONDUCTING ANY WORK.
12. ACCUMULATIONS OF TRACKED AND DEPOSITED SEDIMENT MUST BE REMOVED FROM OFF-SITE PAVED SURFACES WITHIN 24 HOURS OR SOONER IF REQUIRED. SEDIMENT TRACKING MUST BE MINIMIZED BY THE APPROPRIATE MANAGEMENT PRACTICE, LIKE A DEDICATED SITE EXIT WITH AN AGGREGATE SURFACE OR DESIGNATED OFFSITE PARKING AREA. CONTRACTOR IS RESPONSIBLE FOR STREET SWEEPING AND/OR SCRAPING IF YOUR PRACTICES ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED FROM THE SITE.
13. SURFACE WATERS, DRAINAGE DITCHES AND CONVEYANCE SYSTEMS MUST BE INSPECTED FOR SEDIMENT DEPOSITS.
14. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL MEASURES AS INDICATED ON THIS SHEET IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED BY KIMLEY-HORN AND ASSOCIATES, INC. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THE PROVISIONS INDICATED IN THE SWPPP, INCLUDING EROSION CONTROL MEASURES AND INSPECTION FREQUENCY, AS REQUIRED BY THE IEPA NPDES PHASE II PERMIT PROGRAM REQUIREMENTS.
15. PUMPING SEDIMENT LADEN WATER INTO ANY STORMWATER FACILITY THAT IS NOT DESIGNATED TO BE A SEDIMENT TRAP, DRAINAGEWAY, OR OFFSITE AREA EITHER DIRECTLY OR INDIRECTLY WITHOUT FILTRATION IS PROHIBITED.
16. SOIL STOCKPILES SHALL NOT BE LOCATED IN A DRAINAGEWAY, FLOOD PLAIN AREA OR A DESIGNATED BUFFER, UNLESS OTHERWISE APPROVED, UNDER SPECIFIC CONDITIONS TO BE ESTABLISHED BY THE DIRECTOR OR ADMINISTRATOR.
17. STOCKPILES TO REMAIN IN PLACE FOR MORE THAN THREE DAYS SHALL BE PROVIDED WITH SESC MEASURES. MATERIAL IS TO BE HAULED OFF IMMEDIATELY AND LEGALLY IF NO STOCKPILE IS TO REMAIN IN PLACE.
18. ALL TEMPORARY SESC MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED.TRAPPED SEDIMENT AND OTHER DISTURBED SOILS RESULTING FROM TEMPORARY MEASURES SHALL BE PROPERLY DISPOSED OF PRIOR TO PERMANENT STABILIZATION.
19. WATER REMOVED FROM TRAPS, BASINS, AND OTHER WATER HOLDING DEPRESSIONS OR EXCAVATIONS MUST FIRST PASS THROUGH A SEDIMENT CONTROL AND/OR FILTRATION DEVICE. WHEN DEWATERING DEVICES ARE USED, DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION.
20. SITE STABILIZATION REQUIREMENTS ARE AS FOLLOWS:
    - 20.1. WHERE THE INITIATION OF STABILIZATION MEASURE BY THE 7TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES ON A PORTION OF THE SITE IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURE SHALL BE INITIATED AS SOON AS PRACTICABLE.
    - 20.2. WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 14 DAYS FROM WHEN ACTIVITIES CEASED, (E.G. THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN 14 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE 7TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY CEASED.
21. TEMPORARY SOIL STOCKPILES TO BE COORDINATED BETWEEN CLIENT DEVELOPMENT TEAM AND CONTRACTOR DURING CONSTRUCTION.
22. ON AREAS OF EXPOSED SOILS, MINIMIZE THE GENERATION OF DUST THROUGH THE APPROPRIATE APPLICATION OF WATER OR OTHER DUST SUPPRESSION TECHNIQUES IN ACCORDANCE WITH THE IEPA NPDES GENERAL PERMIT NO. ILR10.
23. ALL EROSION CONTROL MEASURES MUST BE INSPECTED EVERY 7 CALENDAR DAYS AND AFTER EACH 1/2 " RAIN EVENT.
24. SILT FENCE TO BE PLACED ON PROPERTY LINE. LINE WORK ON PLANS IS OFFSET FROM LIMITS OF DISTURBANCE FOR LEGIBILITY.

EROSION CONTROL LEGEND

↓ ↓ ↓	TS	TEMPORARY SEEDING (SEE EROSION CONTROL DETAILS)
▒	EB	TEMPORARY EROSION CONTROL BLANKET (SEE EROSION CONTROL NOTE #7)
⬡⬡⬡	CE	CONSTRUCTION ENTRANCE (SEE EROSION CONTROL DETAILS)
—— SF ——	SF	SILT FENCE (SEE EROSION CONTROL DETAILS)
══ SF SF ══	SF	DOUBLE ROW SILT FENCE (SEE EROSION CONTROL DETAILS)
▨	IP	INLET PROTECTION (SEE EROSION CONTROL DETAILS)
☒	CW	CONCRETE WASHOUT (SEE EROSION CONTROL DETAILS) (TO BE DETERMINED BY CONTRACTOR)
▩	RR	RIP RAP (SEE DETAILS)
▩▒	RD	ROCK CHECK DAM (SEE DETAILS)
▭ SF	SS	TEMPORARY SOIL STOCKPILE (DOUBLE ROW SILT FENCE)
▬ ▬ ▬ ▬	LD	LIMITS OF DISTURBANCE
●	SP	PERFORATED RISER / STANDPIPE
— — —XXX— — —		EXISTING CONTOURS
———XXX———		PROPOSED CONTOURS

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570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847-260-7804
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

EROSION
CONTROL PLAN

THE GROVE - AREA 1
(SINGLE FAMILY)
SUGAR GROVE, IL 60554

ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009
SHEET NUMBER

C4.0

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C4.0 EROSION CONTROL PLAN.dwg C4.0 Jul 01, 2025 9:37am by: Joe.Hannah
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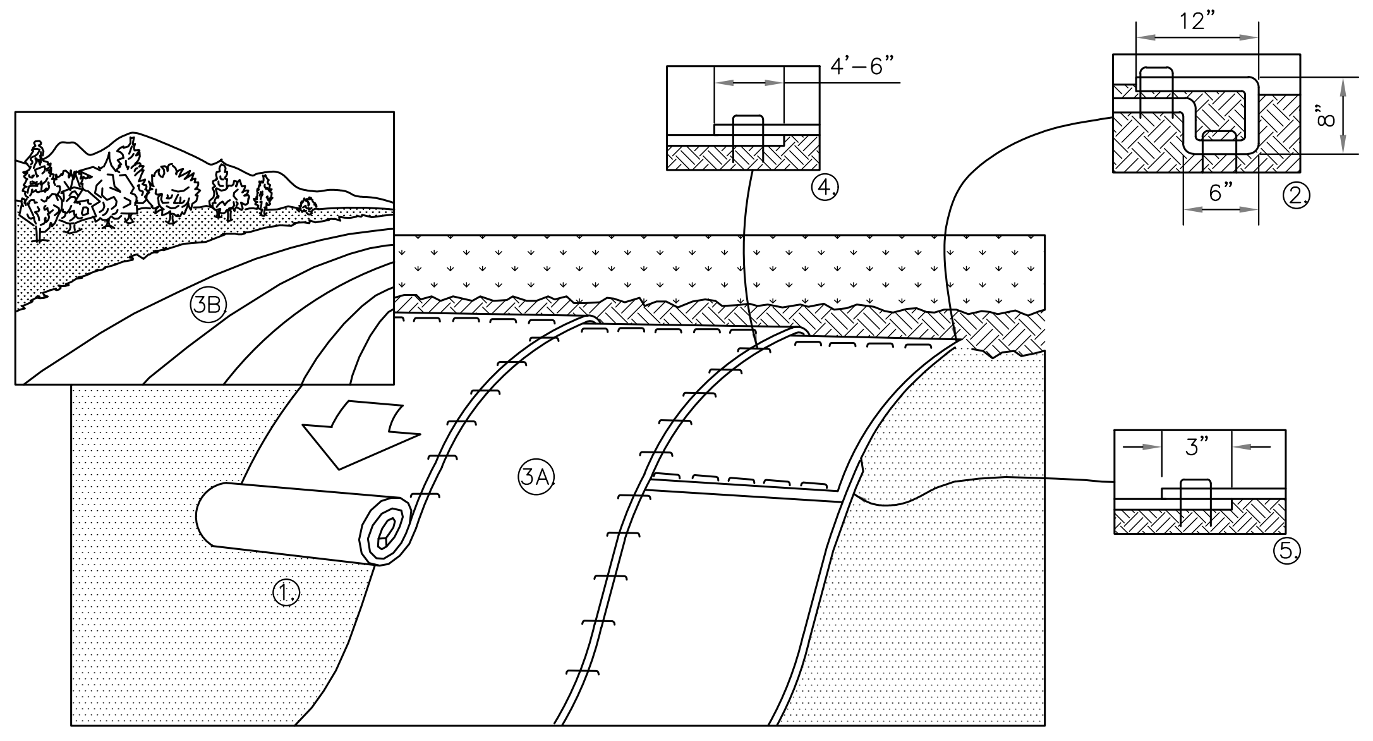
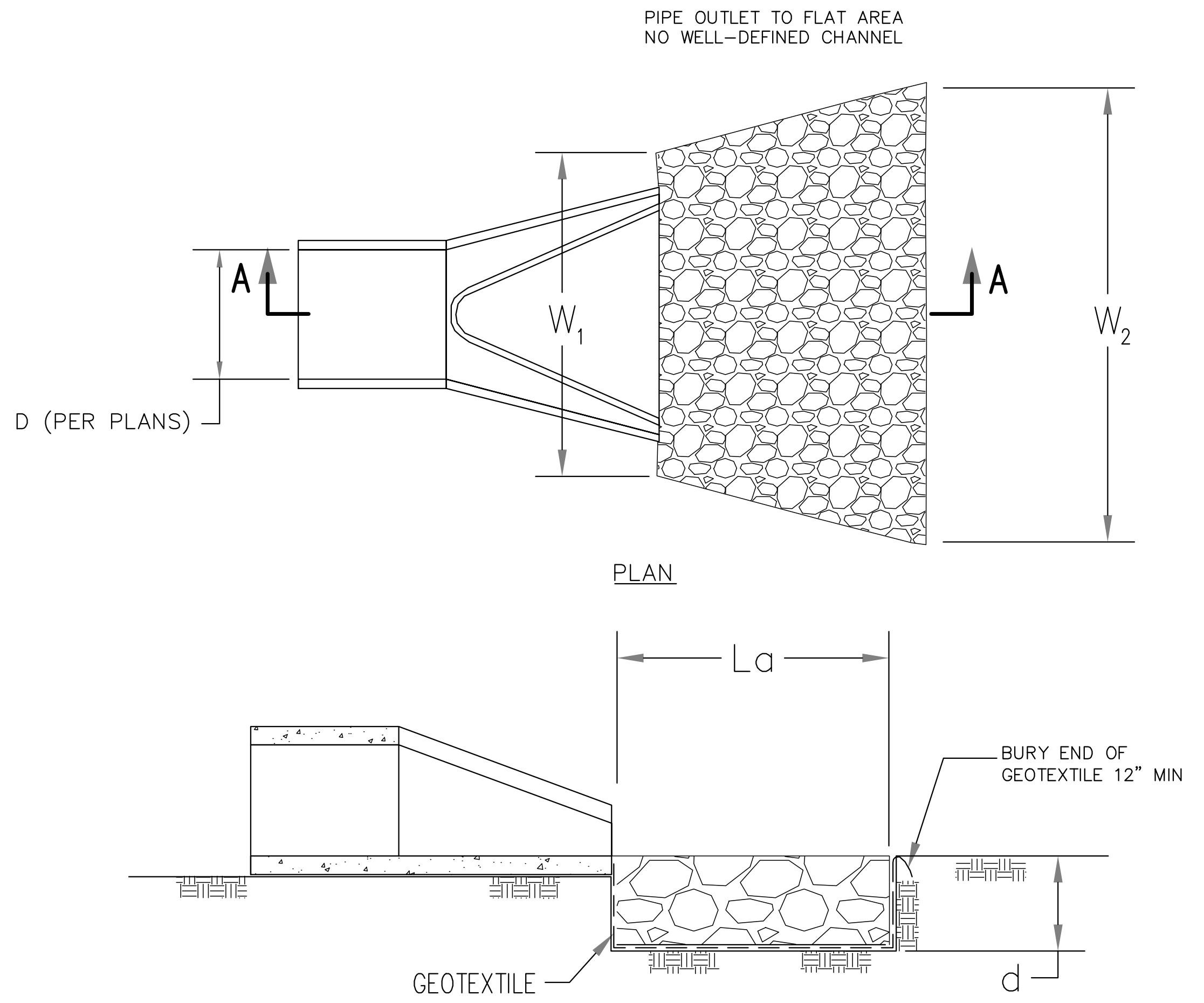

12"
8"
6"
4'–6"
④
②
3"
⑤
3B
3A
①

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH AS SHOWN IN DETAIL 2. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURES RECOMMENDATION.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH MINIMUM 6" OVERLAP. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.
6. PLACE STAPLES/STAKES PER MANUFACTURER'S RECOMMENDATION FOR THE APPROPRIATE SLOPE BEING APPLIED.

NOTES:
1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
2. FOLLOW EROSION CONTROL TECHNOLOGY COUNCIL SPECIFICATION FOR PRODUCT SELECTION.
3. PERVIOUS LAND WITH SLOPES RUNNING GREATER THAN OR EQUAL TO 4:1 SHALL CONTAIN SLOPE STABILIZATION BLANKET

EROSION CONTROL BLANKET (SLOPE INSTALLATION) EB

N.T.S.


PIPE OUTLET TO FLAT AREA
NO WELL-DEFINED CHANNEL
A
A
W1
W2
D (PER PLANS)
PLAN
La
BURY END OF GEOTEXTILE 12" MIN
GEOTEXTILE
d
SECTION A–A

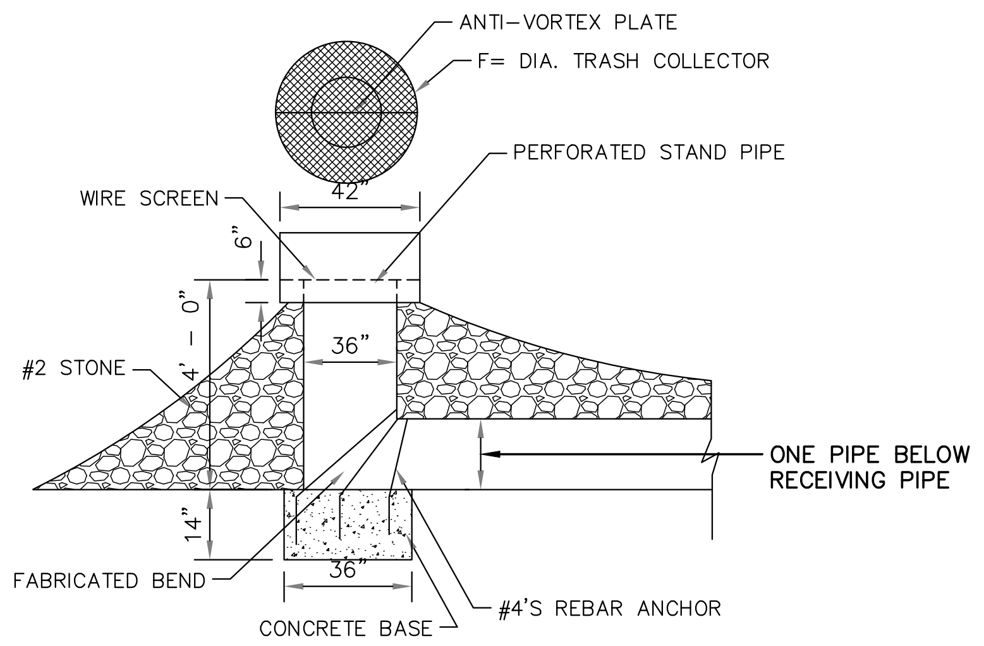
NOTES:
1. THE ROCK RIPRAP SHALL MEET IDOT REQUIREMENTS FOR GRADATION NO. RR–3 & RR–4 , QUALITY DESIGNATION "A".
2. GEOTEXTILE (NON–WOVEN) MINIMUM CRITERIA:
   - 2.1. WEIGHT OF GEOTEXTILE (OZ/SQ.YD.) 6
   - 2.2. TENSILE STRENGTH (LB) ASTM D 4632 180
   - 2.3. ELONGATION AT FAILURE (%) ASTM D 4632 ≥ 50
   - 2.4. PUNCTURE (LB) ASTM D 4833 80
   - 2.5. ULTRAVIOLET LIGHT (% RESIDUAL TENSILE STRENGTH) ASTM D 4355 MIN 70
   - 2.6. APPARENT OPENING SIZE (AOS) ASTM D 4751 MAX 40 SIEVE
   - 2.7. PERMITTIVITY SEC–^{1} ASTM D 4491 MIN 0.70
3. ANY GEOTEXTILE SPLICES SHALL OVERLAP A MINIMUM OF 18 INCHES, WITH UPSTREAM OR UPSLOPE GEOTEXTILE OVERLAPPING THE ABUTTING DOWNSLOPE GEOTEXTILE.
4. APRON WIDTH W_1 SHALL BE 3 TIMES THE CULVERT PIPE DIAMETER. APRON WIDTH W_2 SHALL BE EQUAL TO L_A PLUS THE PIPE DIAMETER.
5. ROCK THICKNESS D SHALL BE AT LEAST 1.5 TIMES THE RIPRAP D_{100} SIZE.
6. APRON LENGTH L_A AND ROCK RIPRAP HAS BEEN SIZED ACCORDING TO ILLINOIS URBAN MANUAL ROCK OUTLET PROTECTION STANDARD 910 BASED CALCULATED VELOCITY FOR THIS PROJECT SITE. PLEASE SEE TABLE 1 FOR DETAILS.

RIPRAP DIMENSION TABLE

INLET PIPE SIZE d (IN)	LENGTH OF APRON La (FT)	ROCK GRADATION (IDOT)	WIDTH OF APRON U/S FACE W1 (FT)	WIDTH OF APRON D/S FACE W2 (FT)	DEPTH OF RIPRAP d (IN)
12	12	RR–3	3.00	13.00	15
15	12	RR–3	3.75	13.25	15
18	16	RR–4	4.50	17.50	20
21	16	RR–4	5.25	17.75	20
24	20	RR–4	6.00	22.00	20
27	20	RR–4	6.75	22.50	20
30	22	RR–4	7.50	24.50	20
36	24	RR–5	9.00	27.00	28
42	24	RR–5	10.50	27.50	30
48	28	RR–6	12.00	32.00	32
54	28	RR–6	13.50	32.50	32
60	36	RR–6	15.00	41.00	32
72	44	RR–6	18.00	50.00	32

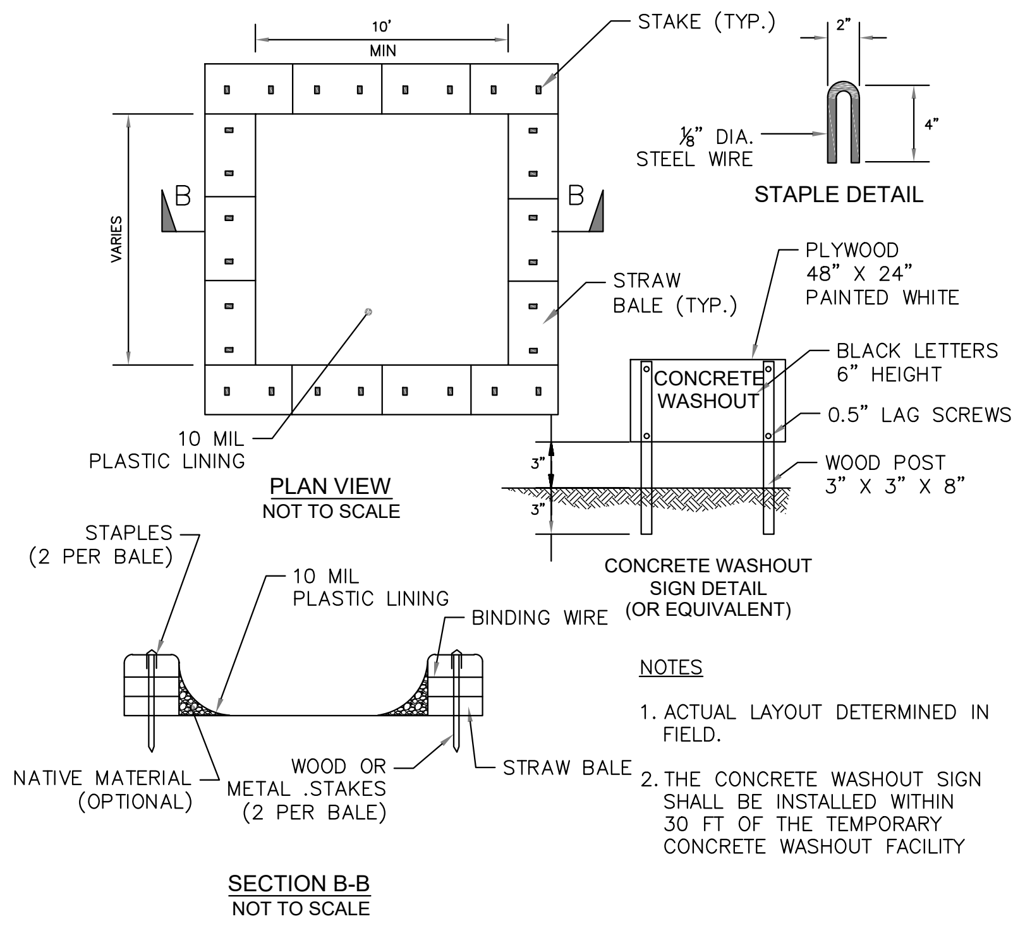
RIP RAP DETAIL OUTLET PROTECTION RR

N.T.S.


ANTI–VORTEX PLATE
F= DIA. TRASH COLLECTOR
PERFORATED STAND PIPE
WIRE SCREEN
42"
6"
4' – 0"
36"
#2 STONE
ONE PIPE BELOW RECEIVING PIPE
14"
36"
FABRICATED BEND
#4'S REBAR ANCHOR
CONCRETE BASE

TEMPORARY STANDPIPE DETAIL SP

N.T.S.

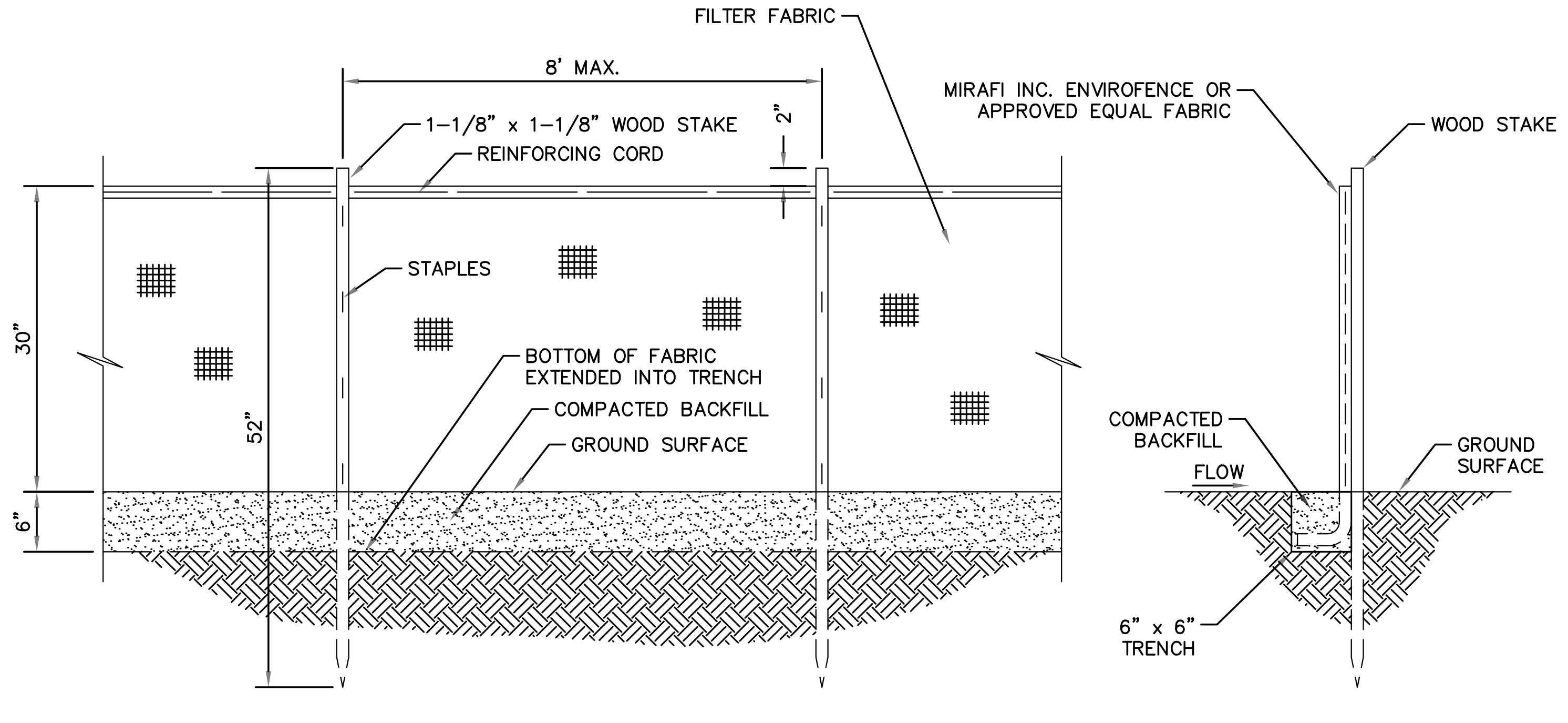

10' MIN
STAKE (TYP.)
VARIES
B
B
2"
4"
⅛" DIA. STEEL WIRE
STAPLE DETAIL
STRAW BALE (TYP.)
PLYWOOD 48" X 24" PAINTED WHITE
CONCRETE WASHOUT
BLACK LETTERS 6" HEIGHT
0.5" LAG SCREWS
WOOD POST 3" X 3" X 8"
10 MIL PLASTIC LINING
3"
3"
PLAN VIEW
NOT TO SCALE
CONCRETE WASHOUT SIGN DETAIL (OR EQUIVALENT)
STAPLES (2 PER BALE)
10 MIL PLASTIC LINING
BINDING WIRE
NATIVE MATERIAL (OPTIONAL)
WOOD OR METAL .STAKES (2 PER BALE)
STRAW BALE
SECTION B-B
NOT TO SCALE

NOTES

1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT OF THE TEMPORARY CONCRETE WASHOUT FACILITY

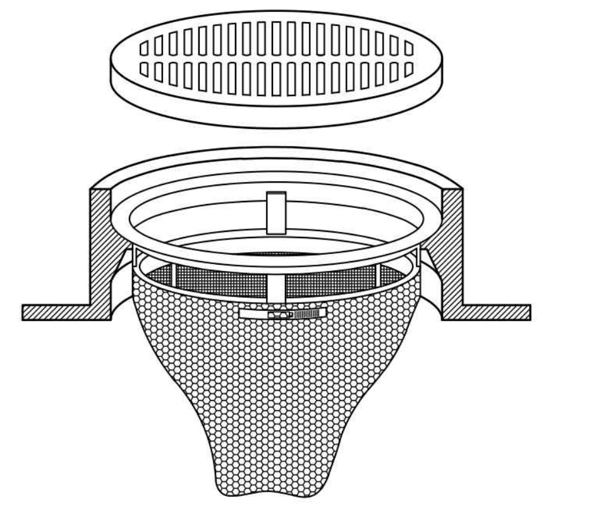
CONCRETE WASHOUT CW

N.T.S.


FILTER FABRIC
8' MAX.
1–1/8" x 1–1/8" WOOD STAKE
REINFORCING CORD
2"
STAPLES
30"
52"
6"
BOTTOM OF FABRIC EXTENDED INTO TRENCH
COMPACTED BACKFILL
GROUND SURFACE
FRONT VIEW
MIRAFI INC. ENVIROFENCE OR APPROVED EQUAL FABRIC
WOOD STAKE
COMPACTED BACKFILL
FLOW
GROUND SURFACE
6" x 6" TRENCH
SIDE VIEW

SEDIMENTATION/SILT FENCE SF

N.T.S.



NOTES:

1. INLET FILTER SYSTEM SHALL CONSIST OF A REPLACEABLE REINFORCED FILTER BAG SUSPENDED FROM A RETAINER RING OR FRAME.
2. INLET FILTER SYSTEMS SHALL BE THE CATCH–ALL "HR", WITH OVERFLOW, AS FURNISHED BY MARATHON MATERIALS, INC., IPP INLET FILTER ASSEMBLY, OR PRE–APPROVED EQUAL.
3. THE FILTER BAG SHALL BE CONSTRUCTED OF A NON–WOVEN POLYPROPYLENE FILTER GEOTEXTILE FABRIC WITH A MINIMUM WEIGHT OF 4 OZ./SQ.YD., A MINIMUM FLOW RATE OF 145 GAL./MIN./SQ.FT., AND DESIGNED FOR A MINIMUM SILT AND DEBRIS CAPACITY OF 2 CU. FT. THE FILTER BAG SHALL BE REINFORCED WITH A POLYESTER MESH FABRIC WITH A MINIMUM WEIGHT OF 4 OZ./SQ.YD.
4. THE FILTER BAG SHALL BE SUSPENDED FROM A GALVANIZED STEEL RING OR FRAME, CONFORMING TO ASTM–A36, UTILIZING A STAINLESS STEEL BAND AND LOCKING CLAMP. THE FRAME SHALL BE DESIGNED WITH AN OVERFLOW FEATURE TO PREVENT ANY PONDING DURING HEAVY RAINFALL.
5. FILTER BAG MUST BE INSPECTED ONCE PER WEEK AND AFTER 1/2" RAINS.

INLET FILTER

Village of Sugar Grove 10 Municipal Drive Sugar Grove, Illinois 60554 Phone: (630) 391–7200	SCALE: N.T.S. DATE: 4/2/24	FOLDER: SG-SE	DRAWING NUMBER: 02	DRAWN BY: BLM REVISED:

INLET PROTECTION SS

N.T.S.

R.O.W. & REMAINING GRASSED AREA: IDOT CLASS 1 SEEDING MIXTURE
PERMANENT SEEDING MIXTURE – 100 LBS./AC. KENTUCKY BLUEGRASS
60 LBS./AC. PERENNIAL RYEGRASS
40 LBS./AC. CREEPING RED FESCUE

TEMPORARY SEEDING MIXTURE – 50 LBS./AC. PERENNIAL RYE GRASS
64 LBS./AC. OATS, SPRING

GRASSED WATERWAY AREA: CLASS 5 SEEDING MIXTURE
PERMANENT SEEDING MIXTURE – 150 LBS./AC. KENTUCKY BLUEGRASS
150 LBS./AC. SMOOTH BROME GRASS

TEMPORARY SEEDING MIXTURE – 50 LBS./AC. PERENNIAL RYEGRASS
64 LBS./AC. OATS, SPRING

SEEDING SCHEDULE	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
PERMANENT SEEDING MIXTURE												
NONIRRIGATED			■	■	■			■	■			
IRRIGATED			■	■	■	■	■	■	■			
DORMANT (DOUBLE RATE)	■	■	■							■	■	■
TEMPORARY SEEDING MIXTURE												
RYE OR WHEAT							■	■	■			
OATS			■	■	■	■						

FERTILIZER MIXTURE FOR PROPOSED SEEDING AREAS
NITROGEN (N) 90 LBS./AC.
PHOSPHORUS (P) 90 LBS./AC/ OR 120 LBS./AC. P_2O_5
POTASSIUM (K) 90 LBS./AC/ OR 120 LBS./AC. K_2O

EROSION CONTROL BLANKET SHALL BE PROVIDED AT ALL AREAS LOCATED WITHIN THE RIGHT OF WAY.

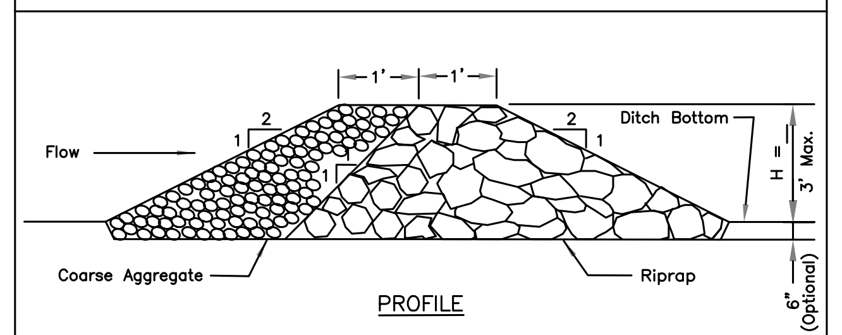
SEEDING INFORMATION AND SCHEDULE

Village of Sugar Grove 10 Municipal Drive Sugar Grove, Illinois 60554 Phone: (630) 391–7200	SCALE: N.T.S. DATE: 4/2/24	FOLDER: SG-SE	DRAWING NUMBER: 11	DRAWN BY: CLN REVISED:

SEEDING CHART SF

N.T.S.

ROCK CHECK DAM – RIPRAP


1'
1'
2
1
1
2
1
Ditch Bottom
Flow
H = 3' Max.
Coarse Aggregate
Riprap
6" (Optional)

PROFILE

NOTES;
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table 1 or 2, Class I, II, or IV and shall be placed over the cleared area prior to the placing of rock.
2. Coarse aggregate shall meet one of the following IDOT gradations, CA–1, CA–2, CA–3, or CA–4.
3. Riprap shall meet IDOT gradation RR–3 or RR–4 and meet Quality Designation A.
4. Coarse aggregate and riprap shall be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
5. For added stability, the base of the dam may be keyed 6 inches into the soil.
6. See plans for spacing of dams and H dimensions.
7. Maximum drainage area to each dam is 10 acres.
8. ROCK CHECK DAM–COARSE AGGREGATE IL–605CA may be used for drainage areas under 2 acres.

REFERENCE
Project
Designed Date
Checked Date
Approved Date

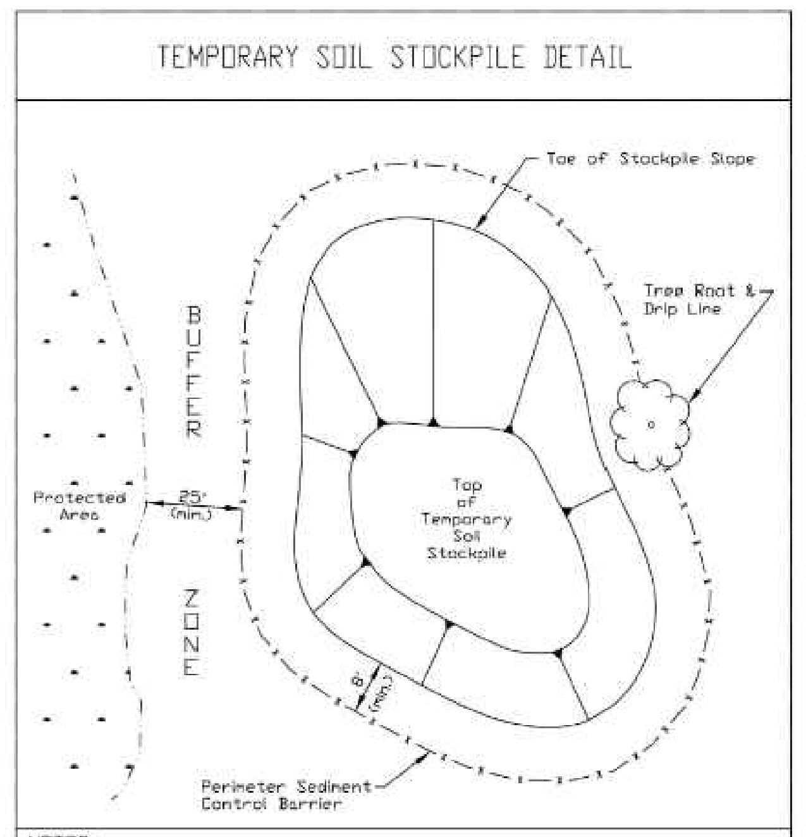
NRCS Natural Resources Conservation Service

STANDARD DWG. NO. IL–605R
SHEET 1 OF 1
DATE 1–29–99

ROCK CHECK DAM RD

N.T.S.

TEMPORARY SOIL STOCKPILE DETAIL


Toe of Stockpile Slope
Tree Root & Drip Line
BUFFER
ZONE
Protected Area
25' (min.)
Top of Temporary Soil Stockpile
8' (min.)
Perimeter Sediment Control Barrier

NOTES:
1. Stockpile slopes should be based on angle of repose of the soil material to avoid potential sloughing of the slope.
2. Soil stockpile to be stabilized in accordance with practical standards.
3. Do not locate stockpile within overland drainage flow path, designated floodways, drip line or over the root crown of adjacent trees.
4. Provisions for sediment control practices may be required along haul roads and entrance/exit locations for access the soil stockpile that can create flow path for stormwater runoff.
5. Installation of benches, terraces, or slope interrupters should be considered.
6. Avoid building soil stockpiles on impervious surfaces.
7. Linear sediment trap surrounding the stockpile base may be used to control sediment.

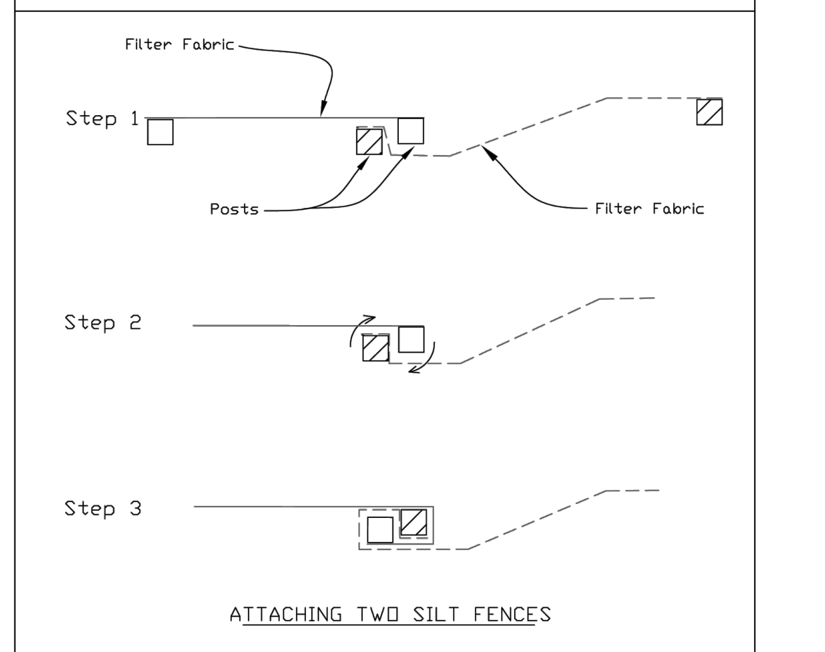
REFERENCE
Project
Designed Date
Checked Date
Approved Date

STANDARD DWG. NO. IUM-627
SHEET 1 OF 1
DATE JANUARY 2017

SOIL STOCKPILE SS

N.T.S.

SILT FENCE – SPLICING TWO FENCES


Filter Fabric
Step 1
Posts
Filter Fabric
Step 2
Step 3

ATTACHING TWO SILT FENCES

1. Place the end post of the second fence inside the end post of the first fence.
2. Rotate both posts at least 180 degrees in a clockwise direction to create a tight seal with the fabric material.
3. Cut the fabric near the bottom of the stakes to accommodate the 6" flap.
4. Drive both posts a minimum of 18 inches into the ground and bury the flap.
5. Compact backfill (particularly at splices) completely to prevent stormwater piping.

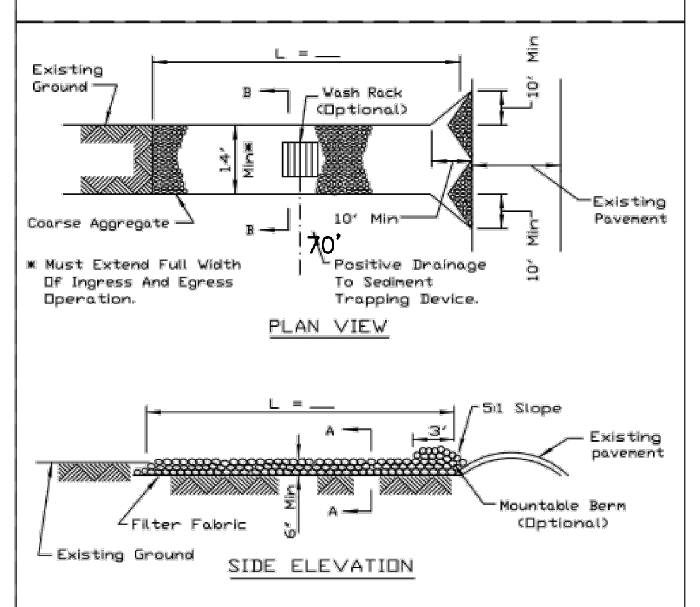
REFERENCE
Project
Designed Date
Checked Date
Approved Date

STANDARD DWG. NO. IUM-620B(W)
SHEET 1 OF 1
DATE 3-16-2012

SILT FENCE SF

N.T.S.

STABILIZED CONSTRUCTION ENTRANCE PLAN


L = __
Existing Ground
B
B
Wash Rack (Optional)
10' Min
14' Min*
Coarse Aggregate
10' Min
70'
Existing Pavement
10' Min
* Must Extend Full Width Of Ingress And Egress Operation.
Positive Drainage To Sediment Trapping Device.
PLAN VIEW
L = __
5:1 Slope
A
3'
Existing pavement
Filter Fabric
6" Min
A
Mountable Berm (Optional)
Existing Ground
SIDE ELEVATION

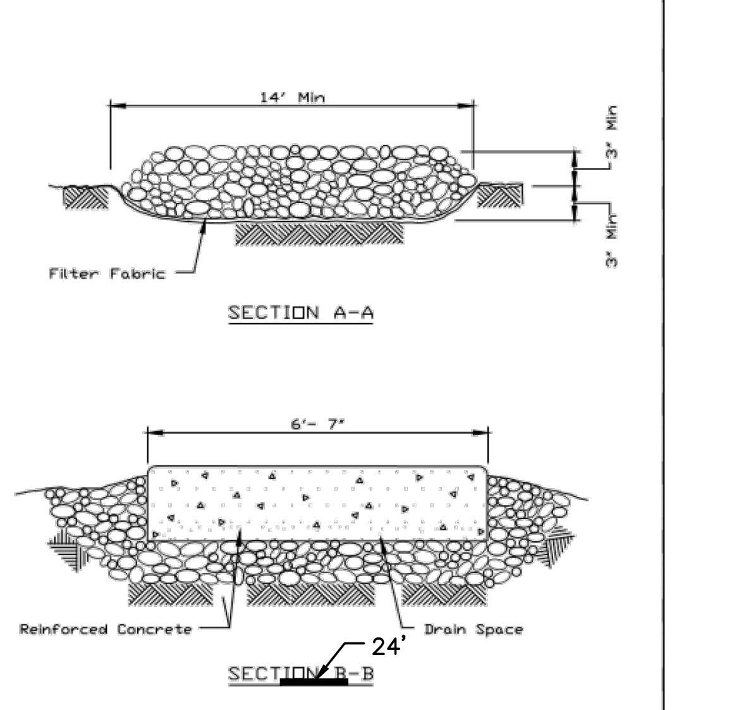
NOTES:
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table I or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
4. If wash racks are used they shall be installed according to the manufacturer's specifications.

REFERENCE
Project
Designed Date
Checked Date
Approved Date

NRCS Natural Resources Conservation Service

STANDARD DWG. NO. IL-630
SHEET 1 OF 2
DATE 8-18-94

STABILIZED CONSTRUCTION ENTRANCE PLAN


14' Min
3' Min
3' Min
Filter Fabric
SECTION A-A
6'- 7"
Reinforced Concrete
Drain Space
24'
SECTION B-B

REFERENCE
Project
Designed Date
Checked Date
Approved Date

NRCS Natural Resources Conservation Service

STANDARD DWG. NO. IL-630
SHEET 2 OF 2
DATE 8-18-94

CONCRETE ENTRANCE CE

N.T.S.

Call Before You Dig
JULIE
1-800-892-0123

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

Kimley»Horn

570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847–260–7804
WWW.KIMLEY–HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

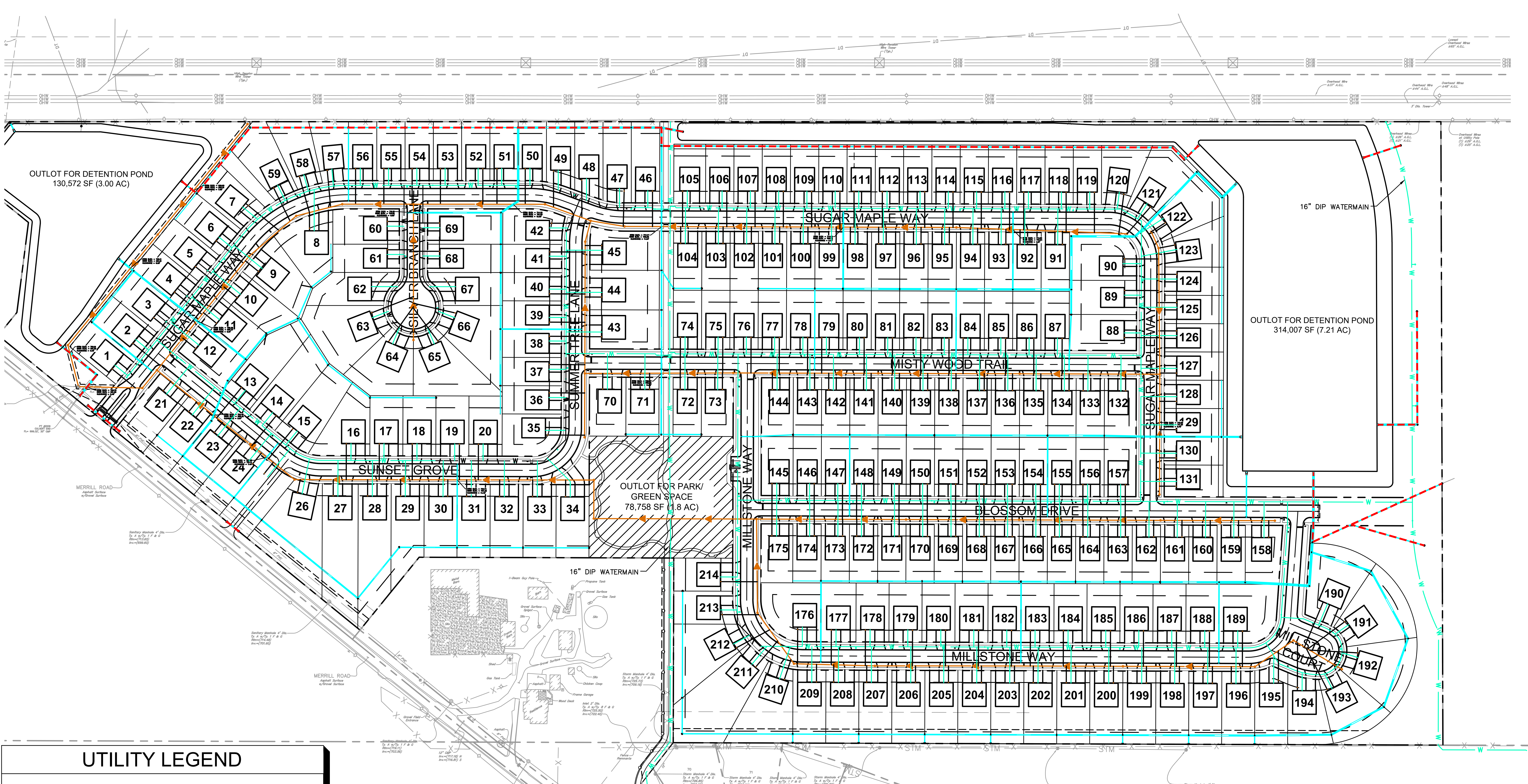
SUGAR GROVE, LLC

EROSION CONTROL PLAN DETAILS

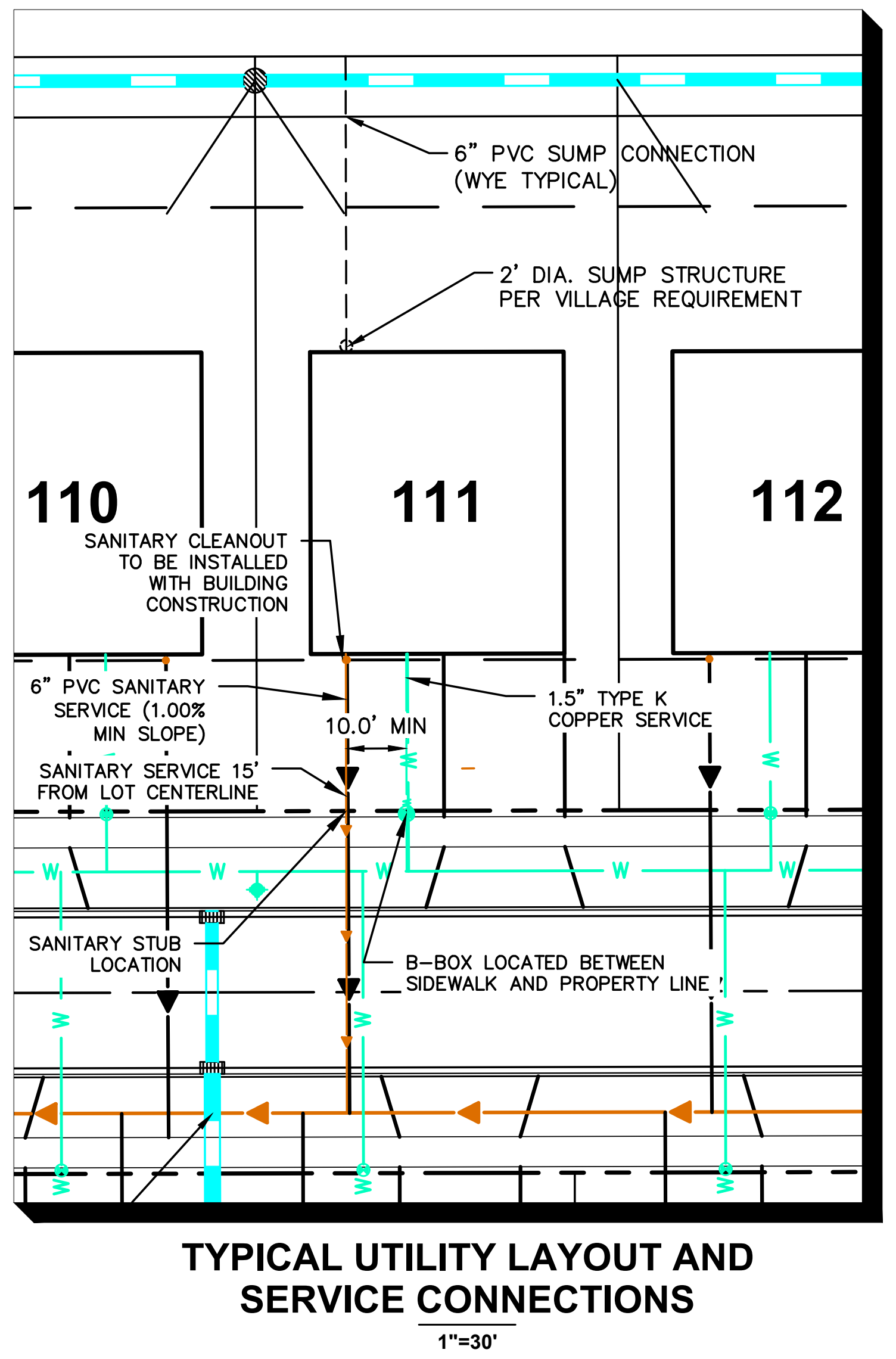
THE GROVE - AREA 1
(SINGLE FAMILY)
SUGAR GROVE, IL 60554

ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009
SHEET NUMBER
C4.1

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove_il\2 Design\CAD\plansheets\Lot 1\C4.1 EROSION CONTROL PLAN DETAILS.dwg EROSION DETAILS Jul 01, 2025 9:37am by: JoeHannah

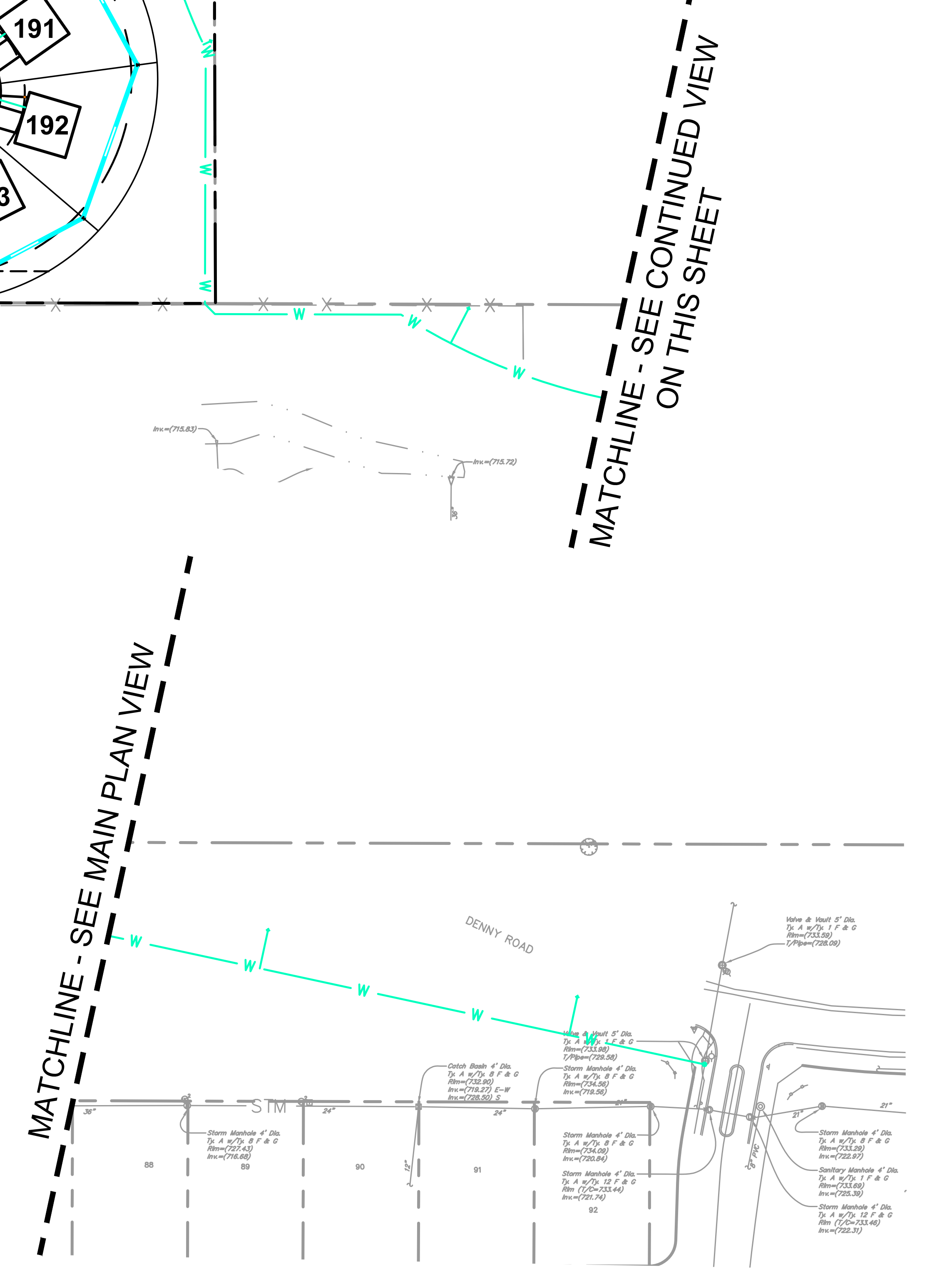

NORTH
GRAPHIC SCALE IN FEET
0
60
120
240
OUTLOT FOR DETENTION POND
130,572 SF (3.00 AC)
OUTLOT FOR DETENTION POND
314,007 SF (7.21 AC)
OUTLOT FOR PARK/
GREEN SPACE
78,758 SF (1.8 AC)
SUGAR MAPLE WAY
SILVER BRANCH LANE
SUMMER TREE LANE
MISTY WOOD TRAIL
SUNSET GROVE
BLOSSOM DRIVE
MILLSTONE WAY
MILLSTONE COURT
16" DIP WATERMAIN
MERRILL ROAD

Call
Before
You Dig
JULIE
1-800-892-0123


6" PVC SUMP CONNECTION
(WYE TYPICAL)
2' DIA. SUMP STRUCTURE
PER VILLAGE REQUIREMENT
110
111
112
SANITARY CLEANOUT
TO BE INSTALLED
WITH BUILDING
CONSTRUCTION
6" PVC SANITARY
SERVICE (1.00%
MIN SLOPE)
10.0' MIN
1.5" TYPE K
COPPER SERVICE
SANITARY SERVICE 15'
FROM LOT CENTERLINE
SANITARY STUB
LOCATION
B-BOX LOCATED BETWEEN
SIDEWALK AND PROPERTY LINE

TYPICAL UTILITY LAYOUT AND SERVICE CONNECTIONS

1"=30'


MATCHLINE - SEE CONTINUED VIEW ON THIS SHEET
MATCHLINE - SEE MAIN PLAN VIEW
DENNY ROAD

UTILITY LEGEND

— W — W —	EX. WATER LINE
— STM —	EX. STORM SEWER LINE
— —	EX. SANITARY SEWER LINE
♉	EX. HYDRANT
◎	EX. SANITARY MANHOLE
Ⓓ	EX. STORM MANHOLE/STRUCTURE
☐	EX. STORM INLET/CATCH BASIN
— OHW —	EX. OVERHEAD ELECTRIC LINE
⌧	EX. LIGHT POLE
⊕	EX. WATER VALVE
⊕	EX. VALVE VAULT
— ELEC —	PROPOSED UNDERGROUND ELECTRIC LINE
— GAS —	GAS LINE (BY GAS COMPANY)
▬	PROPOSED STORM SEWER LINE
▬	PROPOSED STORM SEWER LINE TO BE CONSTRUCTED DURING MASS GRADING
▨	PROPOSED OPEN LID STORM STRUCTURE (PAVEMENT USE NEENAH R-2540) (GRASS USE NEENAH R-4340-B BEEHIVE)
◉	PROPOSED CLOSED LID STORM STRUCTURE (PAVEMENT USE NEENAH R-1713) (GRASS USE NEENAH R-1786)
▥	PROPOSED COMBINATION CURB INLET (M3.12 C&G USE NEENAH R-3501-P) (B6.12 C&G USE NEENAH R-3281-A)
⊃	PROPOSED FLARED END SECTION (ALL REQUIRED GRATING PER IDOT STANDARDS 542301, 542306, 542311)
—▶—	PROPOSED SANITARY SEWER LINE
▣	PROPOSED SANITARY MANHOLE
●	PROPOSED STORM/SANITARY CLEANOUT
— W — W —	PROPOSED WATER LINE
◎	PROPOSED VALVE VAULT
●	PROPOSED VALVE BOX
◆	PROPOSED FIRE HYDRANT
	PROPOSED LIGHT POLE
	RIP RAP (SEE DETAILS)

UTILITY NOTES

1. ALL WATER LINES ≥ 3" SHALL BE DUCTILE IRON PIPE, CLASS 52.
2. ALL SANITARY SEWER LINES SHALL BE PVC MEETING, ASTM D-3034 SDR 26 EXCEPT FOR SANITARY SEWER THAT CROSSES ABOVE WATER MAIN, THIS PIPE SHALL BE AWWA C900. PROVIDE 42" MINIMUM COVER.
3. CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS.
4. ALL ELECTRIC AND TELEPHONE EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE DESIGNATED UTILITY COMPANIES.
5. CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED BY THE ENGINEER FROM THE APPROPRIATE GOVERNING AUTHORITY AND CONTRACTOR HAS BEEN NOTIFIED BY THE ENGINEER.
6. CONTRACTOR TO CALL "JULIE" (1-800-892-0123) TO COORDINATE FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES BEFORE ORDERING MATERIALS OR COMMENCING CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
7. PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OTHER UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM THE ENGINEER AND THE OWNER/ DEVELOPER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. THE ENGINEER AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION. THE MUNICIPALITY SHALL BE NOTIFIED OF ANY AND ALL CHANGES TO THE DESIGN PLANS.
8. CONTRACTOR SHALL COMPLY COMPLETELY WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH PERFORMANCE CRITERIA AS REQUIRED BY OSHA.
9. CONTRACTOR TO AVOID DISRUPTION OF ANY ADJACENT TENANT'S TRAFFIC OPERATIONS DURING INSTALLATION OF UTILITIES.
10. ALL DIMENSIONS ARE TO CENTERLINE OF PIPE OR CENTER OF MANHOLE UNLESS NOTED OTHERWISE.
11. SEE ARCHITECTURAL AND MEP PLANS FOR EXACT UTILITY CONNECTION LOCATIONS AT BUILDING.
12. LIGHT POLES SHOWN FOR COORDINATION PURPOSES ONLY AND DO NOT REPRESENT ACTUAL SIZE. SEE SITE LIGHTING PLANS BY OTHERS FOR MORE INFORMATION.
13. SEE DETAILS FOR LOCATING STORM STRUCTURES WITHIN THE CURB LINE.
14. STORMWATER FACILITIES MUST BE FUNCTIONAL BEFORE BUILDING CONSTRUCTION BEGINS IF REQUIRED BY AUTHORITY HAVING JURISDICTION.
15. GRANULAR TRENCH BACKFILL IS REQUIRED FOR ALL UTILITIES (I.E. WATERMAIN, SANITARY SEWER, STORM SEWER) WHENEVER THE TRENCH IS WITHIN 2-FEET OF PROPOSED OR EXISTING PAVEMENT.
16. PER FMWRD: ALL RISERS SHALL BE INSTALLED TO A DEPTH OF NO GREATER THAN 6'=7' DEEP AT THE PROPERTY LINE/RIGHT OF WAY.
17. ALL STORM SEWERS WITHIN 15' OF ANY BUILDING FOUNDATION SHALL BE O-RING OR OTHER RUBBER GASKETED JOINTS PER ASTM C-443 SPECIFICATIONS.

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

Kimley»Horn

570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847-260-7804
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

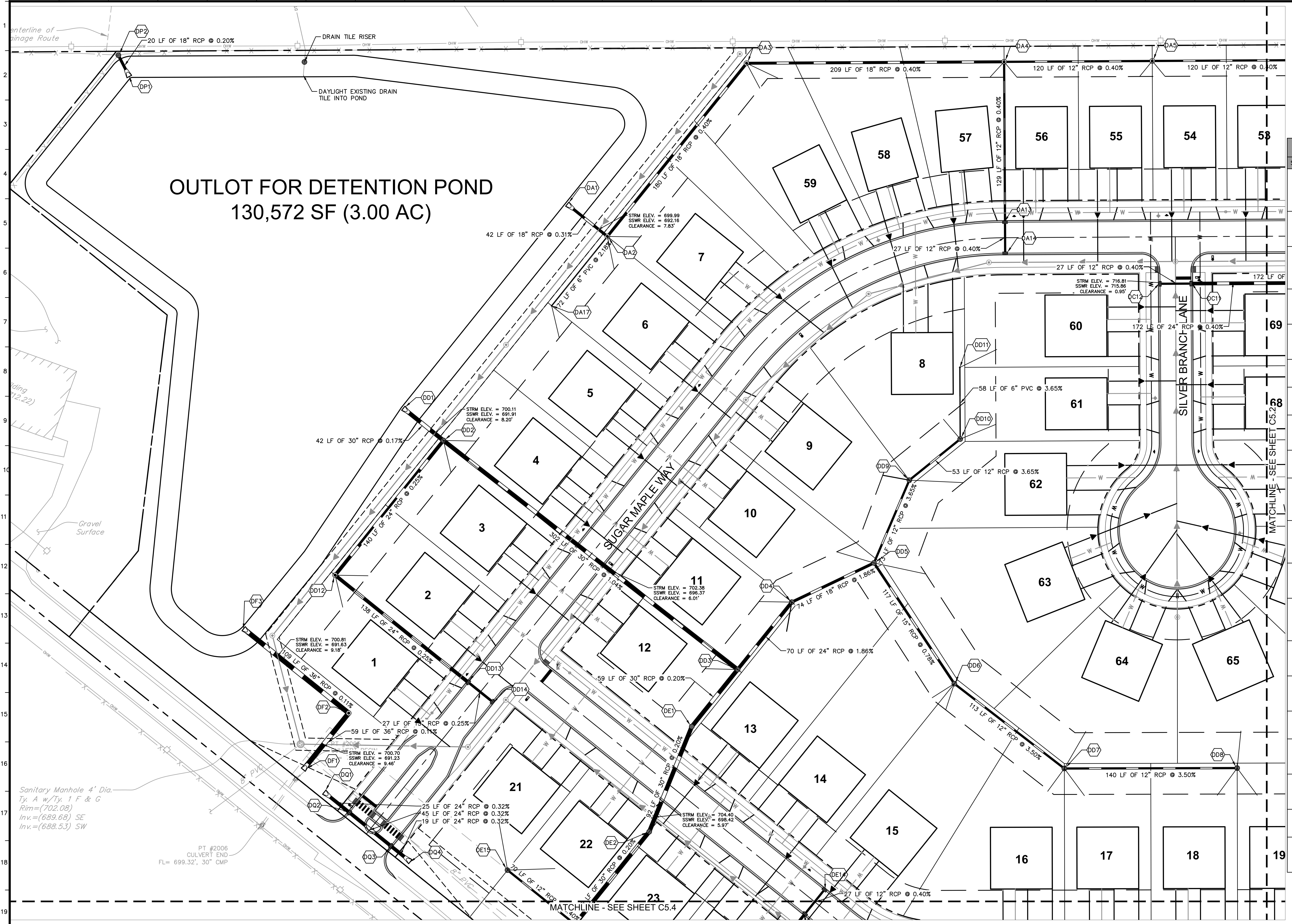
UTILITY PLAN

THE GROVE - AREA 1 (SINGLE FAMILY)

SUGAR GROVE, IL 60554

ORIGINAL ISSUE: 1/31/2025
KHA PROJECT NO. 168740009
SHEET NUMBER
C5.0

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C5.0 UTILITY PLAN.dwg C5.0 Jul 01, 2025 9:38am by: Joe.Hannah


OUTLOT FOR DETENTION POND
130,572 SF (3.00 AC)
SUGAR MAPLE WAY
SILVER BRANCH LANE
MATCHLINE - SEE SHEET C5.2
MATCHLINE - SEE SHEET C5.4
NORTH
Call Before You Dig
JULIE
1-800-892-0123
GRAPHIC SCALE IN FEET
0 20 40 80
DRAIN TILE RISER
DAYLIGHT EXISTING DRAIN TILE INTO POND
20 LF OF 18" RCP @ 0.20%
209 LF OF 18" RCP @ 0.40%
120 LF OF 12" RCP @ 0.40%
120 LF OF 12" RCP @ 0.40%
180 LF OF 18" RCP @ 0.40%
129 LF OF 12" RCP @ 0.40%
42 LF OF 18" RCP @ 0.31%
72 LF OF 6" PVC @ 2.18%
27 LF OF 12" RCP @ 0.40%
27 LF OF 12" RCP @ 0.40%
172 LF OF 24" RCP @ 0.40%
58 LF OF 6" PVC @ 3.65%
53 LF OF 12" RCP @ 3.65%
42 LF OF 30" RCP @ 0.17%
140 LF OF 24" RCP @ 0.25%
302 LF OF 30" RCP @ 1.04%
138 LF OF 24" RCP @ 0.25%
109 LF OF 36" RCP @ 0.11%
59 LF OF 36" RCP @ 0.11%
27 LF OF 12" RCP @ 0.25%
59 LF OF 30" RCP @ 0.20%
74 LF OF 18" RCP @ 1.86%
70 LF OF 24" RCP @ 1.86%
117 LF OF 15" RCP @ 0.78%
113 LF OF 12" RCP @ 3.50%
140 LF OF 12" RCP @ 3.50%
92 LF OF 30" RCP @ 0.20%
25 LF OF 24" RCP @ 0.32%
45 LF OF 24" RCP @ 0.32%
19 LF OF 24" RCP @ 0.32%
70 LF OF 12" RCP
27 LF OF 12" RCP @ 0.40%
STRM ELEV. = 699.99
SSWR ELEV. = 692.16
CLEARANCE = 7.83'
STRM ELEV. = 700.11
SSWR ELEV. = 691.91
CLEARANCE = 8.20'
STRM ELEV. = 716.81
SSWR ELEV. = 715.86
CLEARANCE = 0.95'
STRM ELEV. = 702.38
SSWR ELEV. = 696.37
CLEARANCE = 6.01'
STRM ELEV. = 700.81
SSWR ELEV. = 691.63
CLEARANCE = 9.18'
STRM ELEV. = 700.70
SSWR ELEV. = 691.23
CLEARANCE = 9.46'
STRM ELEV. = 704.40
SSWR ELEV. = 698.42
CLEARANCE = 5.97'
Sanitary Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(702.08)
Inv.=(689.68) SE
Inv.=(688.53) SW
PT #2006
CULVERT END
FL= 699.32', 30" CMP
Gravel Surface
Centerline of Drainage Route
DP1
DP2
DA1
DA2
DA3
DA4
DA5
DA13
DA14
DA17
DC11
DC12
DD1
DD2
DD3
DD4
DD5
DD6
DD7
DD8
DD9
DD10
DD11
DD12
DD13
DD14
DE1
DE2
DE14
DE15
DF1
DF2
DF3
DQ1
DQ2
DQ3
DQ4
1
2
3
4
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68
69

STORM STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
DA2	48" MH – CLOSED LID RIM: 709.99 INV IN: 700.47 (NE, 18") INV IN: 704.47 (SW, 6") INV OUT: 700.47 (NW, 18")
DA3	48" MH – CLOSED LID RIM: 713.92 INV IN: 701.18 (E, 18") INV OUT: 701.18 (SW, 18")
DA4	48" MH – CLOSED LID RIM: 720.69 INV IN: 702.01 (E, 12") INV IN: 712.03 (S, 12") INV OUT: 702.01 (W, 18")
DA5	48" MH – CLOSED LID RIM: 725.83 INV IN: 702.49 (E, 12") INV OUT: 702.49 (W, 12")
DA13	48" CURB CB RIM: 716.65 INV IN: 712.54 (S, 12") INV OUT: 712.54 (N, 12")
DA14	24" INLET RIM: 716.65 INV OUT: 712.65 (N, 12")
DA17	24" CLOSED LID CLEANOUT RIM: 709.95 INV OUT: 706.04 (NE, 6")
DC11	48" CURB CB RIM: 721.01 INV IN: 716.90 (W, 12") INV OUT: 716.40 (E, 24")
DC12	24" INLET RIM: 721.01 INV OUT: 717.01 (E, 12")
DD2	60" CB RIM: 709.62 INV IN: 700.41 (SE, 30") INV IN: 700.91 (SW, 24") INV OUT: 700.41 (NW, 30")
DD3	60" MH – OPEN LID RIM: 709.75 INV IN: 704.06 (NE, 24") INV IN: 703.56 (SW, 30") INV OUT: 703.56 (NW, 30")
DD4	48" MH – OPEN LID RIM: 712.11 INV IN: 705.86 (NE, 18") INV OUT: 705.36 (SW, 24")
DD5	48" MH – OPEN LID RIM: 711.73 INV IN: 707.48 (SE, 15") INV IN: 707.73 (NE, 12") INV OUT: 707.23 (SW, 18")
DD6	48" MH – OPEN LID RIM: 712.65 INV IN: 708.65 (SE, 12") INV OUT: 708.40 (NW, 15")
DD7	48" MH – OPEN LID RIM: 720.63 INV IN: 712.59 (E, 12") INV OUT: 712.59 (NW, 12")
DD8	48" MH – OPEN LID RIM: 721.49 INV OUT: 717.49 (W, 12")
DD9	48" MH – OPEN LID RIM: 714.02 INV IN: 710.39 (NE, 12") INV OUT: 710.39 (SW, 12")
DD10	48" MH – OPEN LID RIM: 717.63 INV IN: 712.83 (N, 6") INV OUT: 712.33 (SW, 12")
DD11	24" CLOSED LID CLEANOUT RIM: 718.94 INV OUT: 714.94 (S, 6")
DD12	60" MH – CLOSED LID RIM: 706.62 INV IN: 701.27 (SE, 24") INV OUT: 701.27 (NE, 24")

STORM STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
DD13	48" CURB CB RIM: 706.43 INV IN: 702.37 (SE, 15") INV OUT: 701.62 (NW, 24")
DD14	24" INLET RIM: 706.43 INV OUT: 702.43 (NW, 15")
DE1	60" MH – OPEN LID RIM: 710.94 INV IN: 703.68 (S, 30") INV OUT: 703.68 (NE, 30")
DE2	60" MH – OPEN LID RIM: 713.77 INV IN: 703.86 (SW, 30") INV OUT: 703.86 (N, 30")
DE14	24" INLET RIM: 713.46 INV OUT: 709.46 (SW, 12")
DE15	48" MH – OPEN LID RIM: 709.83 INV OUT: 705.83 (SE, 12")
DF2	72" MH – CLOSED LID OCS – SEE DETAIL SHEET C8.8 RIM: 707.17 INV IN: 700.22 (NW, 36") INV OUT: 700.22 (SW, 36")
DP2	48" MH – NEENAH R–4341–A STOOL TYPE GRATE RIM: 704.00 INV OUT: 700.38 (SE, 18")
DQ2	48" CURB CB RIM: 704.72 INV IN: 700.71 (SE, 24") INV OUT: 700.71 (NW, 24")
DQ3	24" CURB INLET RIM: 704.72 INV IN: 700.86 (SE, 24") INV OUT: 700.86 (NW, 24")

FES STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
DA1	FES INV: 700.34 (SE, 18")
DD1	FES INV: 700.34 (SE, 30")
DF1	FES INV: 700.16 (NE, 36")
DF3	FES INV: 700.34 (SE, 36")
DP1	FES INV: 700.34 (NW, 18")
DQ1	FES INV: 700.63 (SE, 24")
DQ4	FES INV: 700.92 (NW, 24")

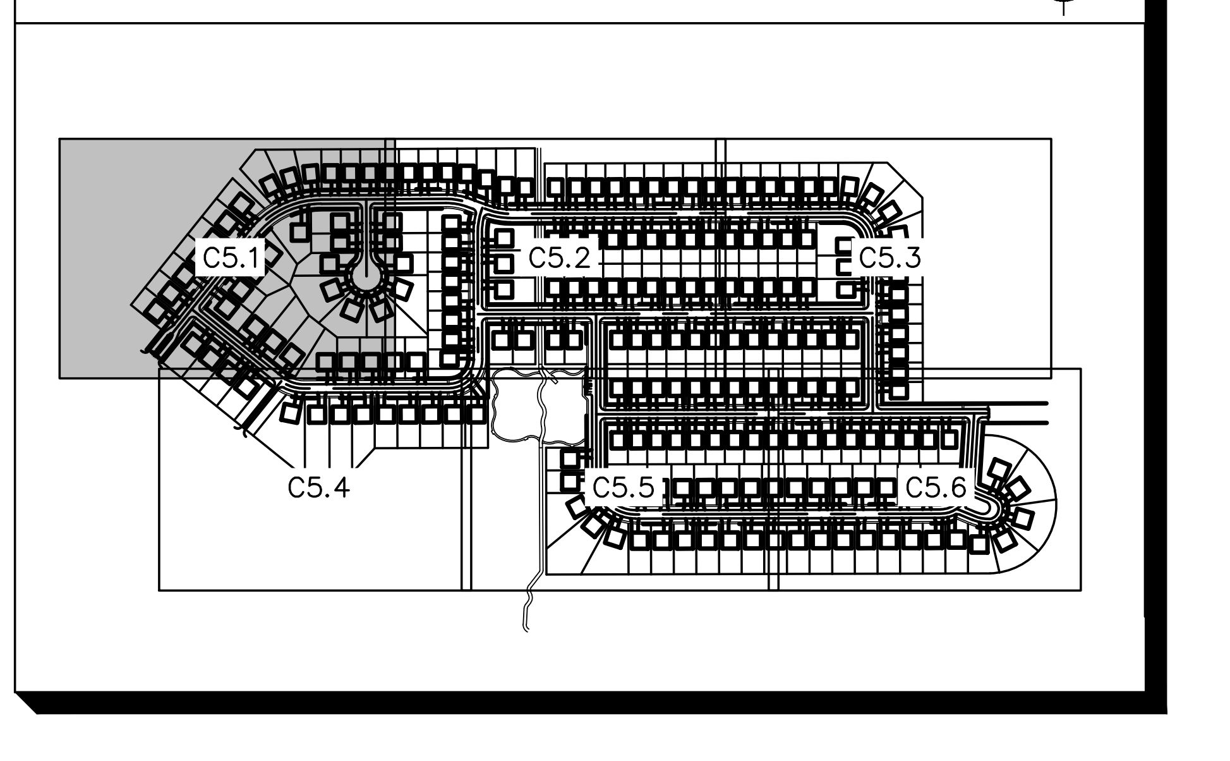
STORM SEWER NOTES

1. REFER TO SHEET C5.0 FOR ALL UTILITY AND DRAINAGE NOTES AND ADDITIONAL SYMBOL LEGEND.
2. UNLESS OTHERWISE NOTED ON PLANS, RIM GRADES ARE AT CURB FLOWLINE (TC GRADE IS 0.25' ABOVE RIM FOR M3.12 C&G)

STORM SEWER LEGEND

▬	PROPOSED STORM SEWER LINE
▨	PROPOSED OPEN LID STORM STRUCTURE (PAVEMENT USE NEENAH R–2540) (GRASS USE NEENAH R–4340–B BEEHIVE)
◉	PROPOSED CLOSED LID STORM STRUCTURE (PAVEMENT USE NEENAH R–1713) (GRASS USE NEENAH R–1786)
▥	PROPOSED COMBINATION CURB INLET (M3.12 C&G USE NEENAH R–3501–E2) (B6.12 C&G USE NEENAH R–3281–A)
⊳	PROPOSED FLARED END SECTION (ALL REQUIRED GRATING PER IDOT STANDARDS 542301, 542306, 542311)

KEY MAP


NORTH
C5.1
C5.2
C5.3
C5.4
C5.5
C5.6

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
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1	PER VILLAGE COMMENT	04/21/25	JRH

Kimley»Horn

© 2025 KIMLEY–HORN AND ASSOCIATES, INC.
570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847–260–7804
WWW.KIMLEY–HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

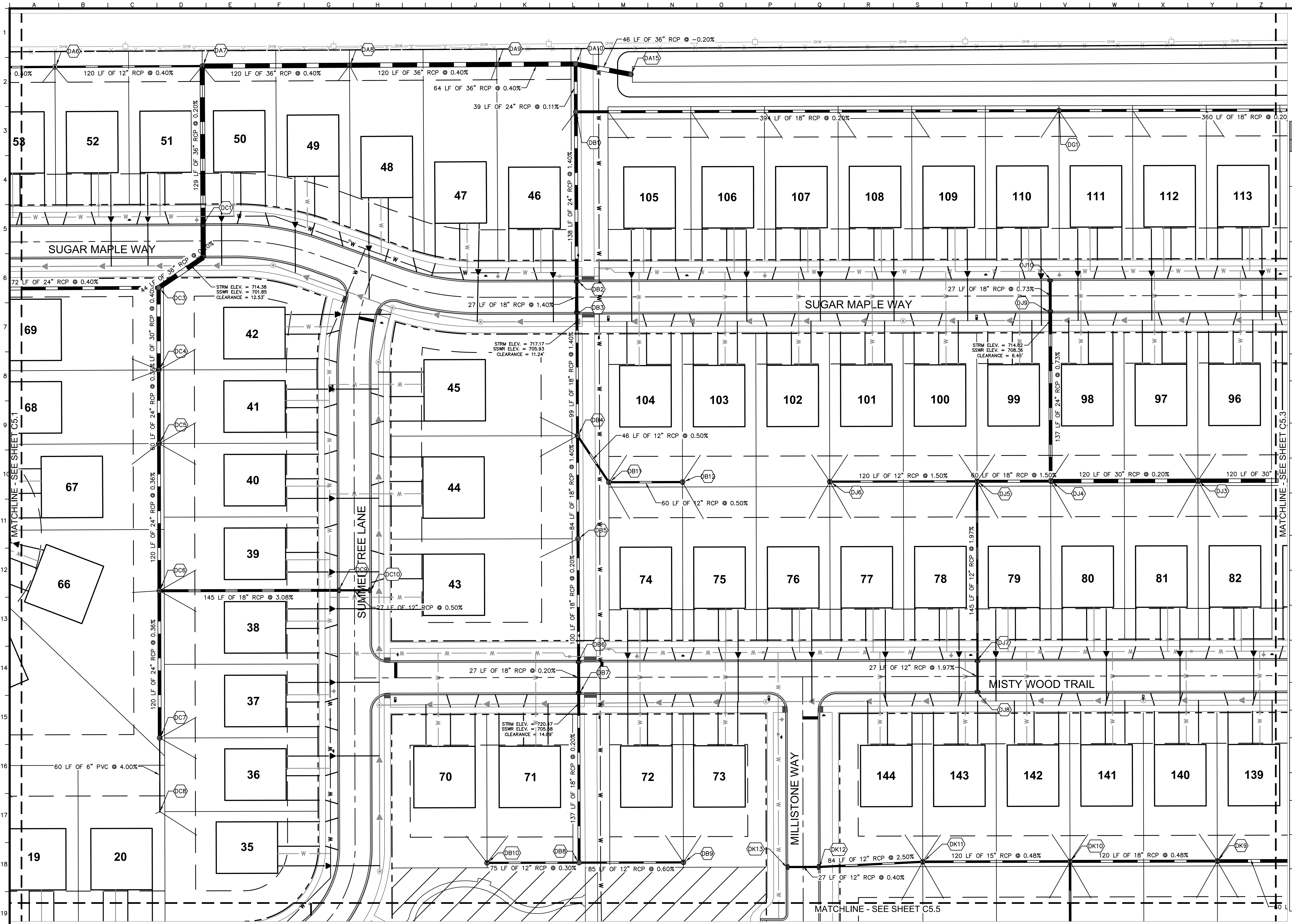
SUGAR GROVE, LLC

STORM SEWER PLAN

THE GROVE - AREA 1
(SINGLE FAMILY)
SUGAR GROVE, IL 60554

ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009
SHEET NUMBER
C5.1

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove_il\2 Design\CAD\plansheets\Lot 1\C5.1 STORM SEWER PLAN.dwg C5.1 Jul 01, 2025 9:39am by: Joe.Hannah


SUGAR MAPLE WAY
SUMMER TREE LANE
MISTY WOOD TRAIL
MILLISTONE WAY
MATCHLINE - SEE SHEET C5.1
MATCHLINE - SEE SHEET C5.3
MATCHLINE - SEE SHEET C5.5
46 LF OF 36" RCP @ -0.20%
120 LF OF 12" RCP @ 0.40%
120 LF OF 36" RCP @ 0.40%
64 LF OF 36" RCP @ 0.40%
39 LF OF 24" RCP @ 0.11%
394 LF OF 18" RCP @ 0.20%
360 LF OF 18" RCP @ 0.20%
129 LF OF 36" RCP @ 0.20%
138 LF OF 24" RCP @ 1.40%
72 LF OF 24" RCP @ 0.40%
44 LF OF 36" RCP @ 0.20%
27 LF OF 18" RCP @ 1.40%
27 LF OF 18" RCP @ 0.73%
STRM ELEV. = 714.38
SSWR ELEV. = 701.85
CLEARANCE = 12.53'
STRM ELEV. = 717.17
SSWR ELEV. = 705.93
CLEARANCE = 11.24'
STRM ELEV. = 714.82
SSWR ELEV. = 708.36
CLEARANCE = 6.46'
99 LF OF 18" RCP @ 1.40%
137 LF OF 24" RCP @ 0.73%
46 LF OF 12" RCP @ 0.50%
60 LF OF 12" RCP @ 0.50%
120 LF OF 12" RCP @ 1.50%
60 LF OF 18" RCP @ 1.50%
120 LF OF 30" RCP @ 0.20%
120 LF OF 30"
84 LF OF 18" RCP @ 1.40%
145 LF OF 18" RCP @ 3.08%
27 LF OF 12" RCP @ 0.50%
100 LF OF 18" RCP @ 0.20%
145 LF OF 12" RCP @ 1.97%
27 LF OF 18" RCP @ 0.20%
27 LF OF 12" RCP @ 1.97%
STRM ELEV. = 720.47
SSWR ELEV. = 705.58
CLEARANCE = 14.89'
137 LF OF 18" RCP @ 0.20%
60 LF OF 6" PVC @ 4.00%
75 LF OF 12" RCP @ 0.30%
85 LF OF 12" RCP @ 0.60%
84 LF OF 12" RCP @ 2.50%
120 LF OF 15" RCP @ 0.48%
120 LF OF 18" RCP @ 0.48%
27 LF OF 12" RCP @ 0.40%
120 LF OF 24" RCP @ 0.36%
120 LF OF 30" RCP @ 0.36%
DA6
DA7
DA8
DA9
DA10
DA15
DB1
DB2
DB3
DB4
DB5
DB6
DB7
DB8
DB9
DB10
DB11
DB12
DC1
DC3
DC4
DC5
DC6
DC7
DC8
DC9
DC10
DG1
DJ3
DJ4
DJ5
DJ6
DJ7
DJ8
DJ9
DJ10
DK9
DK10
DK11
DK12
DK13
NORTH
GRAPHIC SCALE IN FEET
0
20
40
80

Call Before You Dig
JULIE
1-800-892-0123

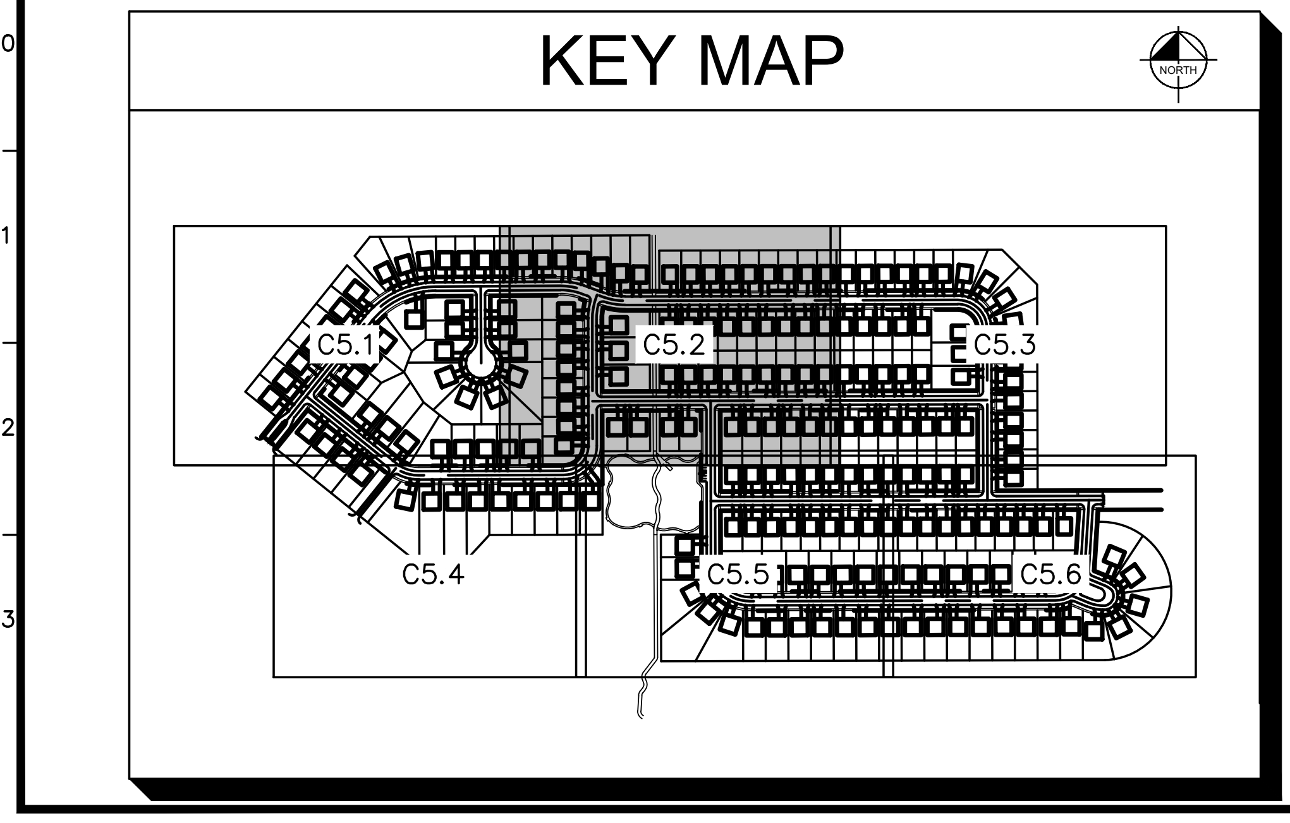
STORM STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
DA6	48" MH – CLOSED LID RIM: 728.03 INV IN: 702.96 (E, 12") INV OUT: 702.96 (W, 12")
DA7	84" MH – OPEN LID OCS – SEE DETAIL SHEET C8.8 RIM: 724.63 INV IN: 703.44 (E, 36") INV IN: 714.31 (S, 36") INV OUT: 703.44 (W, 12")
DA8	60" MH – OPEN LID RIM: 721.14 INV IN: 703.91 (E, 36") INV OUT: 703.91 (W, 36")
DA9	60" MH – OPEN LID RIM: 718.83 INV IN: 704.39 (E, 36") INV OUT: 704.39 (W, 36")
DA10	60" MH – OPEN LID RIM: 718.63 INV IN: 704.64 (S, 24") INV OUT: 704.64 (W, 36") INV OUT: 704.64 (E, 36")
DA15	MH – OPEN LID RIM: 715.30 INV IN: 704.73 (W, 36")
DB1	48" MH – OPEN LID RIM: 720.94 INV IN: 714.53 (S, 24") INV IN: 707.68 (E, 18") INV OUT: 704.68 (N, 24")
DB2	48" CURB CB RIM: 723.17 INV IN: 716.95 (S, 18") INV OUT: 716.45 (N, 24")
DB3	48" INLET RIM: 723.17 INV IN: 717.33 (S, 18") INV OUT: 717.33 (N, 18")
DB4	60" MH – OPEN LID RIM: 725.18 INV IN: 719.22 (S, 18") INV IN: 719.47 (SE, 12") INV OUT: 718.72 (N, 18")
DB5	48" MH – OPEN LID RIM: 725.17 INV IN: 720.40 (S, 18") INV OUT: 720.40 (N, 18")
DB6	48" CURB CB RIM: 726.77 INV IN: 720.60 (S, 18") INV OUT: 720.60 (N, 18")
DB7	48" INLET RIM: 726.77 INV IN: 720.65 (S, 18") INV OUT: 720.65 (N, 18")
DB8	48" MH – OPEN LID RIM: 726.78 INV IN: 721.18 (E, 12") INV IN: 721.18 (W, 12") INV OUT: 720.93 (N, 18")
DB9	48" MH – OPEN LID RIM: 725.70 INV OUT: 721.69 (W, 12")
DB10	48" MH – OPEN LID RIM: 725.40 INV OUT: 721.40 (E, 12")
DB11	48" MH – OPEN LID RIM: 723.54 INV IN: 719.70 (E, 12") INV OUT: 719.70 (NW, 12")
DB12	48" MH – OPEN LID RIM: 724.05 INV OUT: 720.00 (W, 12")
DC1	CURB MH RIM: 724.26 INV IN: 714.57 (S, 36") INV OUT: 714.57 (N, 36")
DC2	CURB MH RIM: 724.26 INV IN: 714.62 (SW, 36") INV OUT: 714.62 (N, 36")
DC3	48" MH – OPEN LID RIM: 723.74 INV IN: 715.21 (S, 30") INV IN: 715.71 (W, 24") INV OUT: 714.71 (NE, 36")

STORM STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
DC4	48" MH – OPEN LID RIM: 720.90 INV IN: 715.98 (S, 24") INV OUT: 715.48 (N, 30")
DC5	48" MH – OPEN LID RIM: 720.90 INV IN: 716.19 (S, 24") INV OUT: 716.19 (N, 24")
DC6	48" MH – OPEN LID RIM: 721.30 INV IN: 716.87 (S, 24") INV IN: 716.87 (E, 18") INV OUT: 716.62 (N, 24")
DC7	48" MH – OPEN LID RIM: 721.30 INV IN: 718.05 (S, 6") INV OUT: 717.30 (N, 24")
DC8	24" CLOSED LID CLEANOUT RIM: 725.91 INV OUT: 720.45 (N, 6")
DC9	48" CURB CB RIM: 725.74 INV IN: 721.61 (E, 12") INV OUT: 721.36 (W, 18")
DC10	24" INLET RIM: 725.74 INV OUT: 721.74 (W, 12")
DG1	48" MH – OPEN LID RIM: 719.84 INV IN: 708.47 (E, 18") INV OUT: 708.47 (W, 18")
DJ3	60" MH – OPEN LID RIM: 720.81 INV IN: 713.82 (W, 30") INV OUT: 713.82 (E, 30")
DJ4	48" MH – OPEN LID RIM: 719.46 INV IN: 715.06 (W, 18") INV IN: 714.56 (N, 24") INV OUT: 714.06 (E, 30")
DJ5	48" MH – OPEN LID RIM: 720.50 INV IN: 716.46 (W, 12") INV IN: 716.46 (S, 12") INV OUT: 715.96 (E, 18")
DJ6	48" MH – OPEN LID RIM: 722.29 INV OUT: 718.26 (E, 12")
DJ7	48" CURB CB RIM: 723.86 INV IN: 719.33 (S, 12") INV OUT: 719.33 (N, 12")
DJ8	24" INLET RIM: 723.86 INV OUT: 719.86 (N, 12")
DJ9	48" CURB CB RIM: 720.27 INV IN: 716.07 (N, 18") INV OUT: 715.57 (S, 24")
DJ10	24" INLET RIM: 720.27 INV OUT: 716.27 (S, 18")
DK9	48" MH – OPEN LID RIM: 723.03 INV IN: 717.82 (W, 18") INV OUT: 717.32 (E, 24")
DK10	48" MH – OPEN LID RIM: 722.95 INV IN: 718.65 (W, 15") INV IN: 718.65 (S, 15") INV OUT: 718.40 (E, 18")
DK11	48" MH – OPEN LID RIM: 722.95 INV IN: 719.48 (W, 12") INV OUT: 719.22 (E, 15")
DK12	48" CURB CB RIM: 725.68 INV IN: 721.58 (W, 12") INV OUT: 721.58 (E, 12")
DK13	24" INLET RIM: 725.68 INV OUT: 721.68 (E, 12")

KEY MAP


NORTH
C5.1
C5.2
C5.3
C5.4
C5.5
C5.6

STORM SEWER NOTES

1. REFER TO SHEET C5.0 FOR ALL UTILITY AND DRAINAGE NOTES AND ADDITIONAL SYMBOL LEGEND.
2. UNLESS OTHERWISE NOTED ON PLANS, RIM GRADES ARE AT CURB FLOWLINE (TC GRADE IS 0.25' ABOVE RIM FOR M3.12 C&G)

STORM SEWER LEGEND

▬	PROPOSED STORM SEWER LINE
▨	PROPOSED OPEN LID STORM STRUCTURE (PAVEMENT USE NEENAH R-2540) (GRASS USE NEENAH R-4340-B BEEHIVE)
◉	PROPOSED CLOSED LID STORM STRUCTURE (PAVEMENT USE NEENAH R-1713) (GRASS USE NEENAH R-1786)
▥	PROPOSED COMBINATION CURB INLET (M3.12 C&G USE NEENAH R-3501-E2) (B6.12 C&G USE NEENAH R-3281-A)
⊃	PROPOSED FLARED END SECTION (ALL REQUIRED GRATING PER IDOT STANDARDS 542301, 542306, 542311)

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
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Kimley»Horn

570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847-260-7804
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

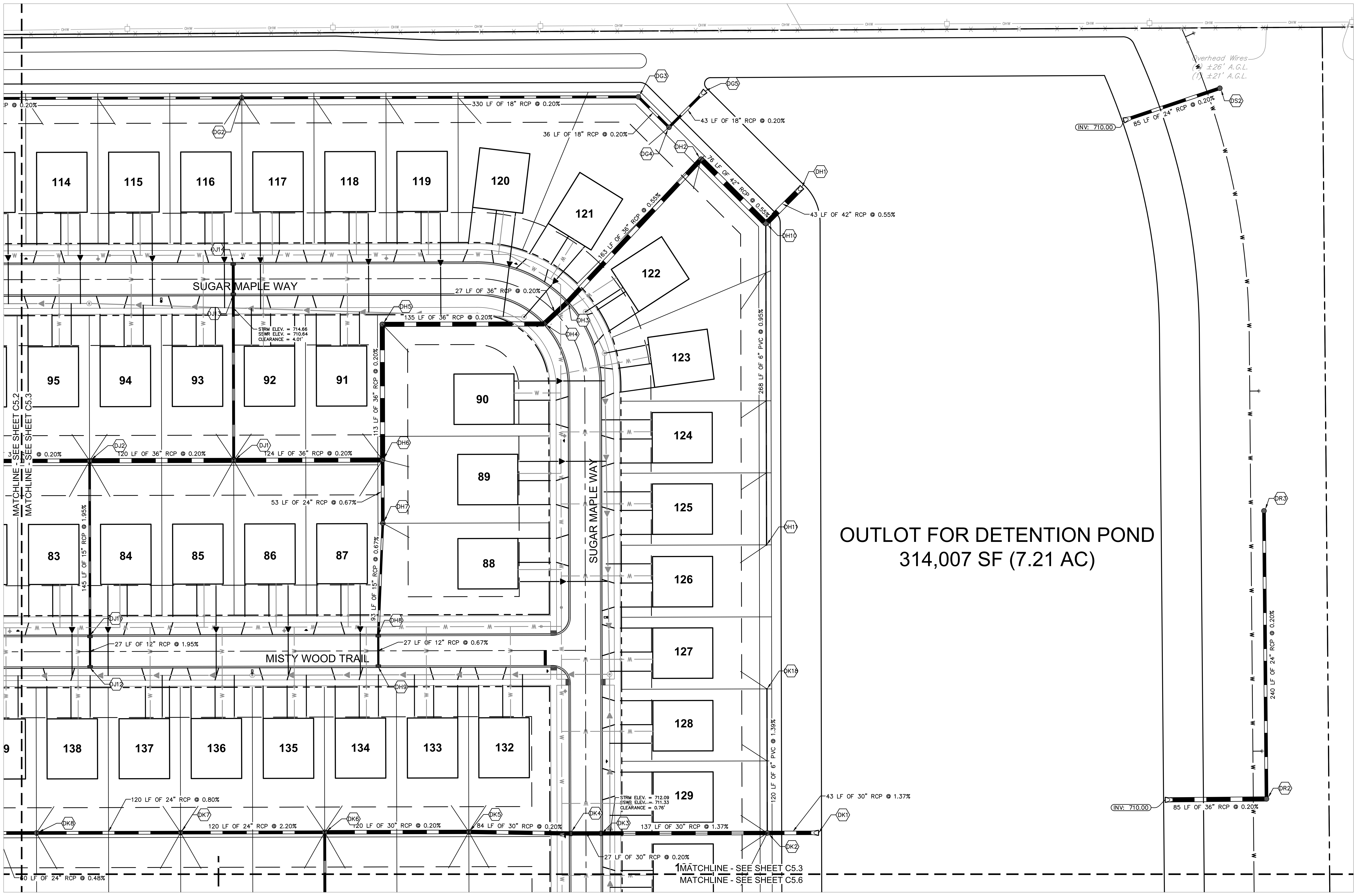
STORM SEWER PLAN

THE GROVE - AREA 1
(SINGLE FAMILY)
SUGAR GROVE, IL 60554

ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009

SHEET NUMBER
C5.2

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C5.1 STORM SEWER PLAN.dwg C5.2 Jul 01, 2025 9:39am by: Joe.Hannah


330 LF OF 18" RCP @ 0.20%
P @ 0.20%
36 LF OF 18" RCP @ 0.20%
43 LF OF 18" RCP @ 0.20%
76 LF OF 42" RCP @ 0.55%
43 LF OF 42" RCP @ 0.55%
163 LF OF 36" RCP @ 0.55%
27 LF OF 36" RCP @ 0.20%
135 LF OF 36" RCP @ 0.20%
113 LF OF 36" RCP @ 0.20%
120 LF OF 36" RCP @ 0.20%
124 LF OF 36" RCP @ 0.20%
53 LF OF 24" RCP @ 0.67%
145 LF OF 15" RCP @ 1.95%
93 LF OF 15" RCP @ 0.67%
27 LF OF 12" RCP @ 1.95%
27 LF OF 12" RCP @ 0.67%
268 LF OF 6" PVC @ 0.95%
120 LF OF 6" PVC @ 1.39%
120 LF OF 24" RCP @ 0.80%
120 LF OF 24" RCP @ 2.20%
120 LF OF 30" RCP @ 0.20%
84 LF OF 30" RCP @ 0.20%
137 LF OF 30" RCP @ 1.37%
27 LF OF 30" RCP @ 0.20%
43 LF OF 30" RCP @ 1.37%
60 LF OF 24" RCP @ 0.48%
85 LF OF 24" RCP @ 0.20%
85 LF OF 36" RCP @ 0.20%
240 LF OF 24" RCP @ 0.20%
INV: 710.00
INV: 710.00
STRM ELEV. = 714.66
SSWR ELEV. = 710.64
CLEARANCE = 4.01'
STRM ELEV. = 712.09
SSWR ELEV. = 711.33
CLEARANCE = 0.76'
Overhead Wires
(2) ±26' A.G.L.
(1) ±21' A.G.L.
OHW
DG2
DG3
DG4
DG5
DH1
DH2
DH3
DH4
DH5
DH6
DH7
DH8
DH9
DH10
DH11
DJ1
DJ2
DJ11
DJ12
DJ13
DJ14
DK1
DK2
DK3
DK4
DK5
DK6
DK7
DK8
DK18
DR2
DR3
DS2
SUGAR MAPLE WAY
SUGAR MAPLE WAY
MISTY WOOD TRAIL
MATCHLINE - SEE SHEET C5.2
MATCHLINE - SEE SHEET C5.3
MATCHLINE - SEE SHEET C5.3
MATCHLINE - SEE SHEET C5.6
OUTLOT FOR DETENTION POND
314,007 SF (7.21 AC)
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
95
94
93
92
91
90
89
88
83
84
85
86
87
138
137
136
135
134
133
132
9

NORTH

GRAPHIC SCALE IN FEET
0 20 40 80

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STORM STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
DG2	MH – OPEN LID RIM: 719.75 INV IN: 709.18 (E, 18") INV OUT: 709.18 (W, 18")
DG3	48" MH – OPEN LID RIM: 719.60 INV IN: 709.84 (SE, 18") INV OUT: 709.84 (W, 18")
DG4	48" CB RIM: 718.97 INV IN: 709.91 (NE, 18") INV OUT: 709.91 (NW, 18")
DH2	72" MH – OPEN LID RIM: 718.08 INV IN: 711.15 (SW, 36") INV OUT: 710.65 (SE, 42")
DH3	72" CURB CB RIM: 718.94 INV IN: 712.04 (SW, 36") INV OUT: 712.04 (NE, 36")
DH4	72" INLET RIM: 718.79 INV IN: 712.09 (W, 36") INV OUT: 712.09 (NE, 36")
DH5	72" MH – OPEN LID RIM: 719.58 INV IN: 712.36 (S, 36") INV OUT: 712.36 (E, 36")
DH6	72" MH – OPEN LID RIM: 718.51 INV IN: 713.59 (S, 24") INV IN: 712.59 (W, 36") INV OUT: 712.59 (N, 36")
DH7	48" MH – OPEN LID RIM: 720.10 INV IN: 714.69 (S, 15") INV OUT: 713.94 (N, 24")
DH8	48" CURB CB RIM: 719.74 INV IN: 715.56 (S, 12") INV OUT: 715.31 (N, 15")
DH9	24" INLET RIM: 719.74 INV OUT: 715.74 (N, 12")
DH10	48" MH – OPEN LID RIM: 719.66 INV IN: 711.73 (S, 6") INV IN: 710.23 (NW, 42") INV OUT: 710.23 (NE, 42")
DH11	6" CLEANOUT RIM: 719.85 INV OUT: 714.29 (N, 6")
DJ1	60" MH – OPEN LID RIM: 718.27 INV IN: 712.84 (W, 36") INV IN: 714.34 (N, 18") INV OUT: 712.84 (E, 36")
DJ2	60" MH – OPEN LID RIM: 719.17 INV IN: 713.58 (W, 30") INV IN: 714.83 (S, 15") INV OUT: 713.08 (E, 36")
DJ11	48" CURB CB RIM: 722.49 INV IN: 717.91 (S, 12") INV OUT: 717.66 (N, 15")
DJ12	24" INLET RIM: 722.49 INV OUT: 718.43 (N, 12")
DJ13	CURB MH RIM: 719.19 INV IN: 715.05 (N, 18") INV OUT: 715.05 (S, 18")
DJ14	CURB MH RIM: 719.19 INV OUT: 715.19 (S, 18")
DK2	60" MH – OPEN LID RIM: 719.78 INV IN: 710.59 (W, 30") INV IN: 712.59 (N, 6") INV OUT: 710.59 (E, 30")
DK3	60" CURB CB RIM: 718.59 INV IN: 712.47 (W, 30") INV OUT: 712.47 (E, 30")
DK4	60" INLET RIM: 718.59 INV IN: 712.53 (W, 30") INV OUT: 712.53 (E, 30")

STORM STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
DK5	48" MH – OPEN LID RIM: 718.20 INV IN: 712.70 (W, 30") INV OUT: 712.70 (E, 30")
DK6	48" MH – OPEN LID RIM: 718.20 INV IN: 713.44 (W, 24") INV IN: 713.70 (S, 18") INV OUT: 712.94 (E, 30")
DK7	48" MH – OPEN LID RIM: 721.46 INV IN: 716.08 (W, 24") INV OUT: 716.08 (E, 24")
DK8	48" MH – OPEN LID RIM: 721.46 INV IN: 717.04 (W, 24") INV OUT: 717.04 (E, 24")
DK18	6" CLEANOUT RIM: 719.86 INV OUT: 714.26 (S, 6")

STORM STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
DR2	72" MH – OPEN LID RIM: 715.94 INV IN: 711.17 (N, 24") INV OUT: 710.17 (W, 36")
DR3	48" MH – OPEN LID RIM: 715.70 INV OUT: 711.65 (S, 24")
DS2	48" MH – OPEN LID RIM: 714.54 INV OUT: 710.17 (W, 24")

FES STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
DG5	FES INV: 710.00 (SW, 18")
DH1	FES INV: 710.00 (SW, 42")
DK1	FES INV: 710.00 (W, 30")
DR1	FES INV: 710.00 (E, 36")
DS1	FES INV: 710.00 (E, 24")

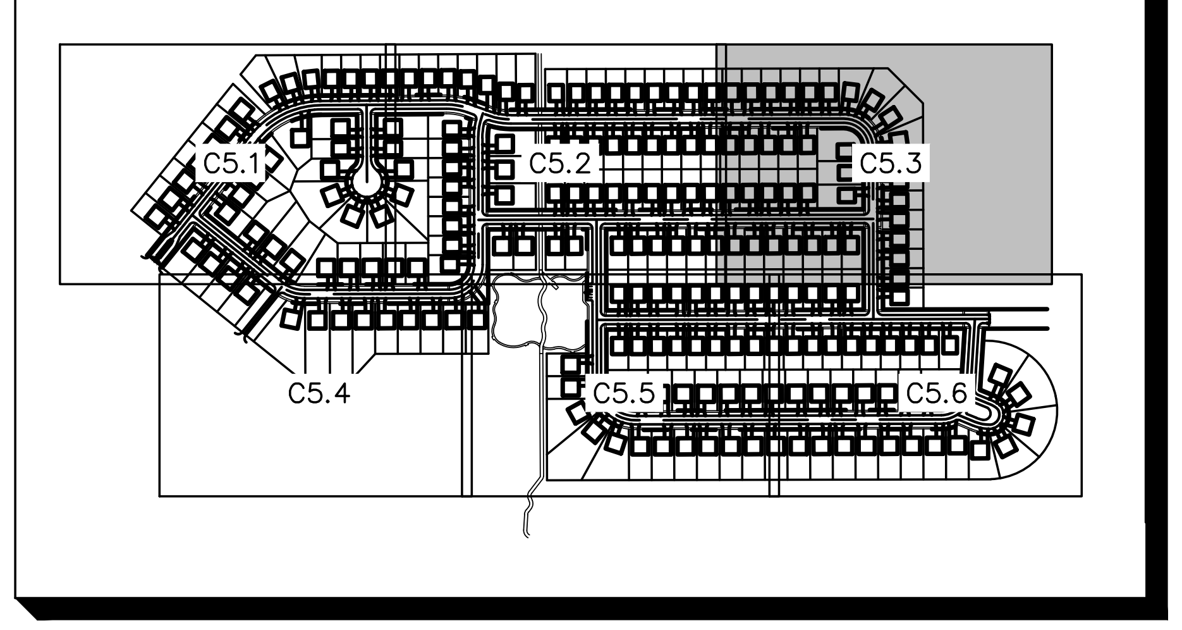
STORM SEWER NOTES

1. REFER TO SHEET C5.0 FOR ALL UTILITY AND DRAINAGE NOTES AND ADDITIONAL SYMBOL LEGEND.
2. UNLESS OTHERWISE NOTED ON PLANS, RIM GRADES ARE AT CURB FLOWLINE (TC GRADE IS 0.25' ABOVE RIM FOR M3.12 C&G)

STORM SEWER LEGEND

▬	PROPOSED STORM SEWER LINE
▨	PROPOSED OPEN LID STORM STRUCTURE (PAVEMENT USE NEENAH R–2540) (GRASS USE NEENAH R–4340–B BEEHIVE)
◉	PROPOSED CLOSED LID STORM STRUCTURE (PAVEMENT USE NEENAH R–1713) (GRASS USE NEENAH R–1786)
▥	PROPOSED COMBINATION CURB INLET (M3.12 C&G USE NEENAH R–3501–E2) (B6.12 C&G USE NEENAH R–3281–A)
⊳	PROPOSED FLARED END SECTION (ALL REQUIRED GRATING PER IDOT STANDARDS 542301, 542306, 542311)

KEY MAP


NORTH
C5.1
C5.2
C5.3
C5.4
C5.5
C5.6

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

Kimley»Horn

570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847–260–7804
WWW.KIMLEY–HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

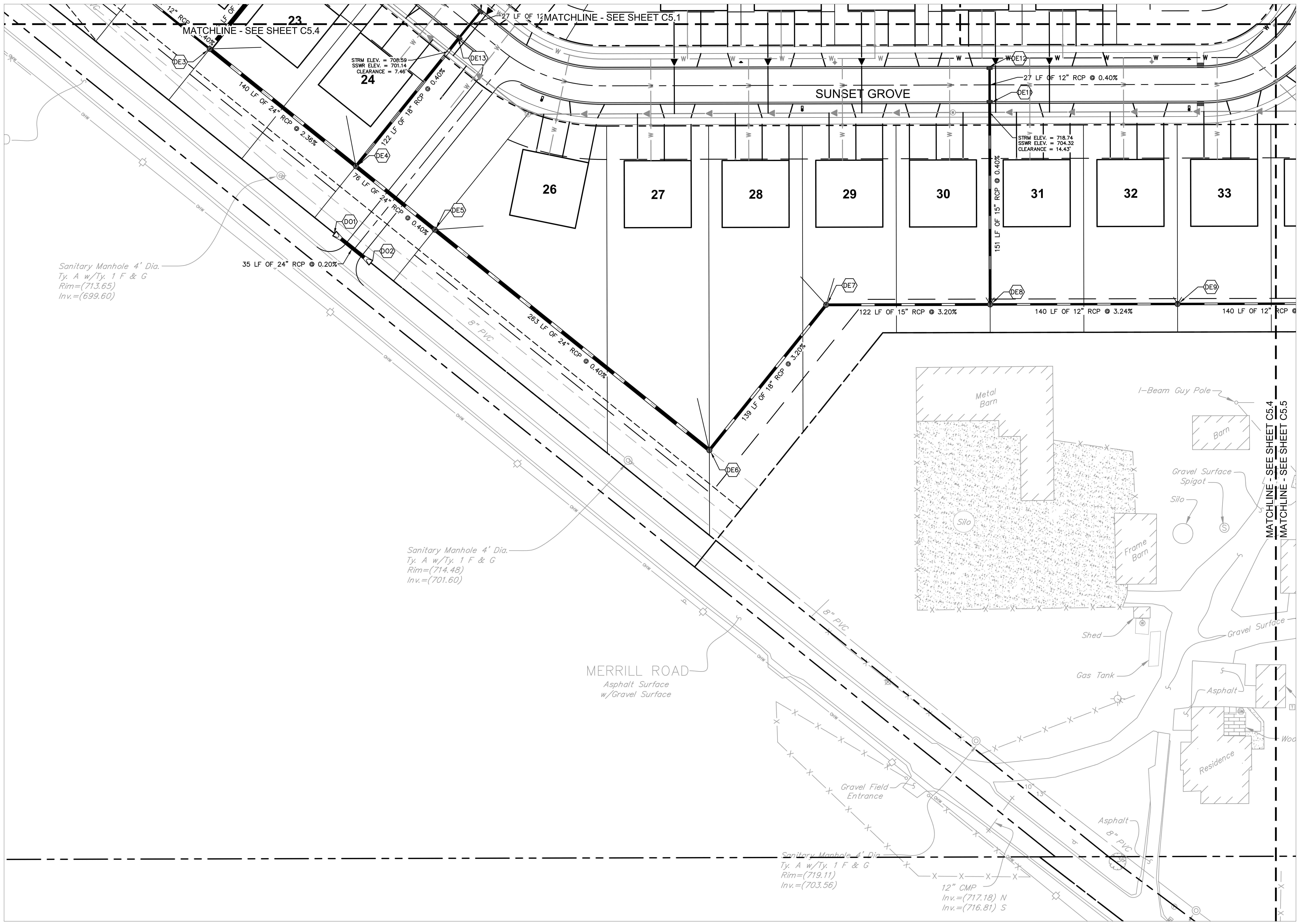
SUGAR GROVE, LLC

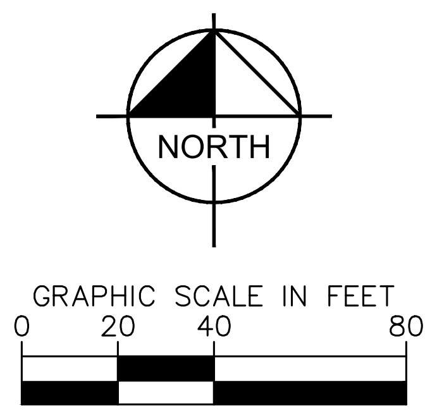
STORM SEWER
PLAN

THE GROVE - AREA 1
(SINGLE FAMILY)
SUGAR GROVE, IL 60554

ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009
SHEET NUMBER
C5.3

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C5.1 STORM SEWER PLAN.dwg C5.3 Jul 01, 2025 9:40am by: Joe.Hannah


MATCHLINE - SEE SHEET C5.4
MATCHLINE - SEE SHEET C5.1
27 LF OF 12
12" RCP
.40%
23
24
26
27
28
29
30
31
32
33
DE3
DE4
DE5
DE6
DE7
DE8
DE9
DE11
DE12
DE13
DO1
DO2
STRM ELEV. = 708.59
SSWR ELEV. = 701.14
CLEARANCE = 7.46'
140 LF OF 24" RCP @ 2.36%
122 LF OF 18" RCP @ 0.40%
76 LF OF 24" RCP @ 0.40%
35 LF OF 24" RCP @ 0.20%
263 LF OF 24" RCP @ 0.40%
139 LF OF 18" RCP @ 3.20%
122 LF OF 15" RCP @ 3.20%
140 LF OF 12" RCP @ 3.24%
140 LF OF 12" RCP @
151 LF OF 15" RCP @ 0.40%
27 LF OF 12" RCP @ 0.40%
STRM ELEV. = 718.74
SSWR ELEV. = 704.32
CLEARANCE = 14.43'
SUNSET GROVE
W
MATCHLINE - SEE SHEET C5.4
MATCHLINE - SEE SHEET C5.5
Sanitary Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(713.65)
Inv.=(699.60)
Sanitary Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(714.48)
Inv.=(701.60)
Sanitary Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(719.11)
Inv.=(703.56)
8" PVC
OHW
MERRILL ROAD
Asphalt Surface
w/Gravel Surface
Gravel Field
Entrance
12" CMP
Inv.=(717.18) N
Inv.=(716.81) S
10"
13"
36"
Asphalt
Metal
Barn
Silo
Frame
Barn
I-Beam Guy Pole
Barn
Gravel Surface
Spigot
Silo
Shed
Gravel Surface
Gas Tank
Asphalt
Residence
Woo


NORTH
GRAPHIC SCALE IN FEET
0
20
40
80

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STORM STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
DE3	60" MH – OPEN LID RIM: 713.18 INV IN: 704.55 (SE, 24") INV IN: 705.55 (NW, 12") INV OUT: 704.05 (NE, 30")
DE4	48" MH – OPEN LID RIM: 713.18 INV IN: 707.86 (SE, 24") INV IN: 708.36 (NE, 18") INV OUT: 707.86 (NW, 24")
DE5	48" MH – OPEN LID RIM: 715.81 INV IN: 708.17 (SE, 24") INV OUT: 708.17 (NW, 24")
DE6	48" MH – OPEN LID RIM: 713.99 INV IN: 709.73 (NE, 18") INV OUT: 709.23 (NW, 24")
DE7	48" MH – OPEN LID RIM: 719.74 INV IN: 714.44 (E, 15") INV OUT: 714.19 (SW, 18")
DE8	48" MH – OPEN LID RIM: 723.25 INV IN: 718.61 (E, 12") INV IN: 718.36 (N, 15") INV OUT: 718.36 (W, 15")
DE9	48" MH – OPEN LID RIM: 727.60 INV IN: 723.14 (E, 12") INV OUT: 723.14 (W, 12")
DE11	48" CURB CB RIM: 723.32 INV IN: 719.21 (N, 12") INV OUT: 718.96 (S, 15")
DE12	24" INLET RIM: 723.32 INV OUT: 719.32 (S, 12")
DE13	48" CURB CB RIM: 713.46 INV IN: 709.35 (NE, 12") INV OUT: 708.85 (SW, 18")

FES STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
DO1	FES INV: 711.40 (SE, 24")
DO2	FES INV: 711.47 (NW, 24")

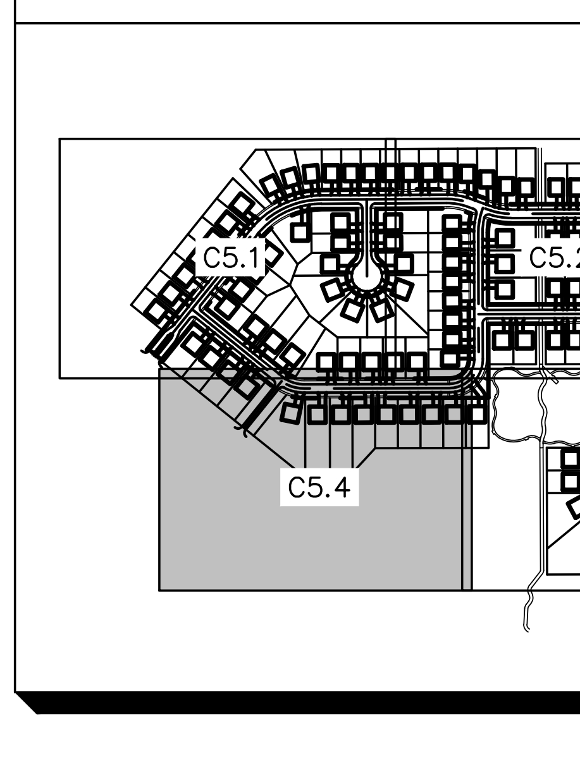
STORM SEWER NOTES

1. REFER TO SHEET C5.0 FOR ALL UTILITY AND DRAINAGE NOTES AND ADDITIONAL SYMBOL LEGEND.
2. UNLESS OTHERWISE NOTED ON PLANS, RIM GRADES ARE AT CURB FLOWLINE (TC GRADE IS 0.25' ABOVE RIM FOR M3.12 C&G)

STORM SEWER LEGEND

▬	PROPOSED STORM SEWER LINE
◍	PROPOSED OPEN LID STORM STRUCTURE (PAVEMENT USE NEENAH R-2540) (GRASS USE NEENAH R-4340-B BEEHIVE)
⊙	PROPOSED CLOSED LID STORM STRUCTURE (PAVEMENT USE NEENAH R-1713) (GRASS USE NEENAH R-1786)
▥	PROPOSED COMBINATION CURB INLET (M3.12 C&G USE NEENAH R-3501-E2) (B6.12 C&G USE NEENAH R-3281-A)
◁	PROPOSED FLARED END SECTION (ALL REQUIRED GRATING PER IDOT STANDARDS 542301, 542306, 542311)

KEY MAP


NORTH
C5.1
C5.2
C5.3
C5.4
C5.5
C5.6

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

Kimley»Horn

570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847-260-7804
WWW.KIMLEY-HORN.COM

SUGAR GROVE, LLC

STORM SEWER PLAN

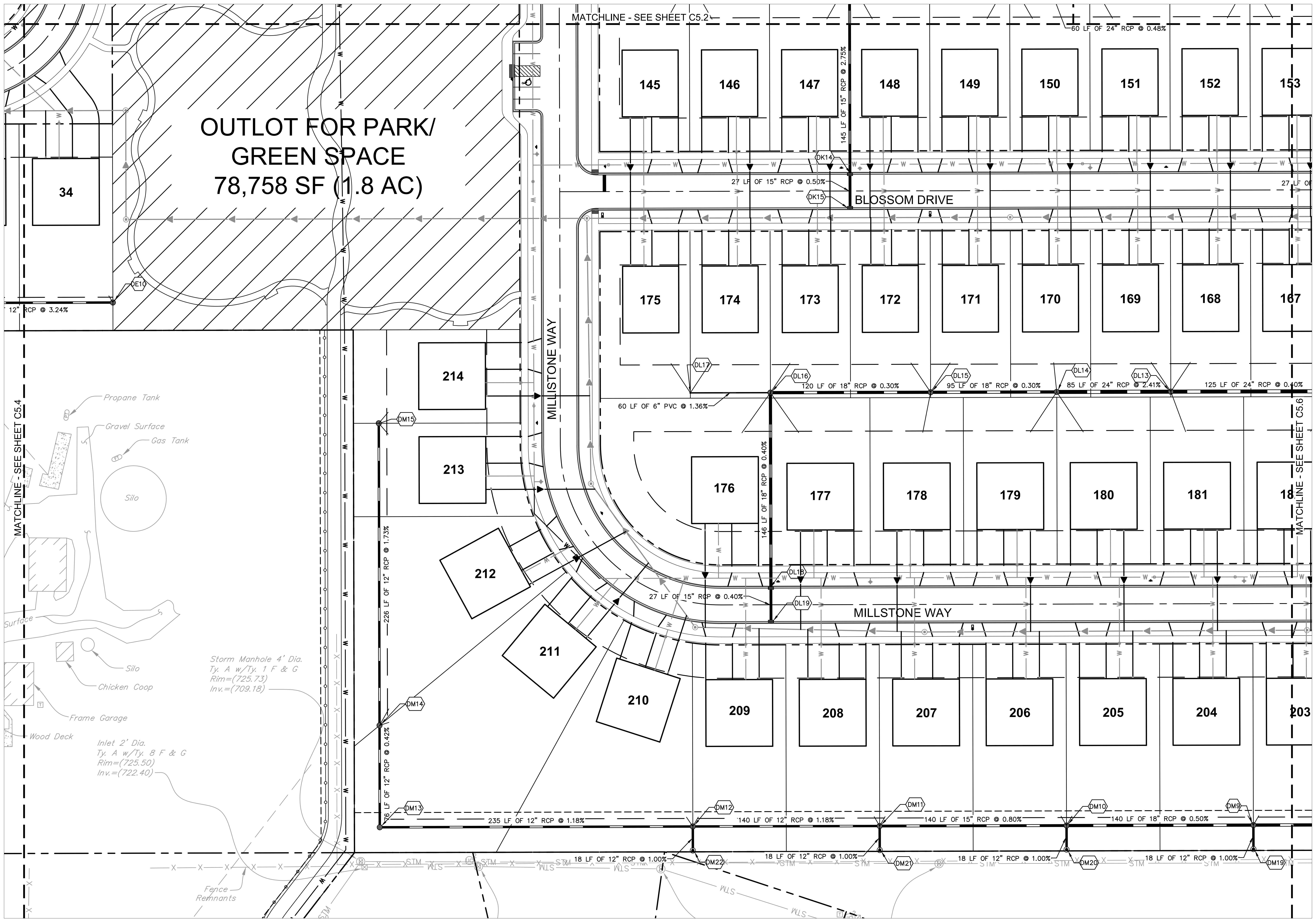
THE GROVE - AREA 1 (SINGLE FAMILY)

SUGAR GROVE, IL 60554

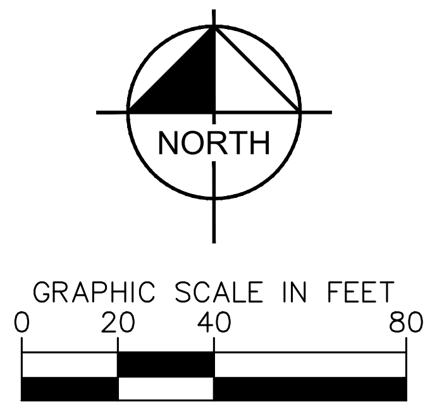
ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009

SHEET NUMBER
C5.4

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C5.1 STORM SEWER PLAN.dwg C5.4 Jul 01, 2025 9:40am by: Joe.Hannah



MATCHLINE - SEE SHEET C5.2
MATCHLINE - SEE SHEET C5.4
MATCHLINE - SEE SHEET C5.6
OUTLOT FOR PARK/
GREEN SPACE
78,758 SF (1.8 AC)
34
145
146
147
148
149
150
151
152
153
175
174
173
172
171
170
169
168
167
214
213
212
211
210
176
177
178
179
180
181
209
208
207
206
205
204
203
BLOSSOM DRIVE
MILLSTONE WAY
MILLSTONE WAY
60 LF OF 24" RCP @ 0.48%
145 LF OF 15" RCP @ 2.75%
27 LF OF 15" RCP @ 0.50%
12" RCP @ 3.24%
120 LF OF 18" RCP @ 0.30%
95 LF OF 18" RCP @ 0.30%
85 LF OF 24" RCP @ 2.41%
125 LF OF 24" RCP @ 0.40%
60 LF OF 6" PVC @ 1.36%
146 LF OF 18" RCP @ 0.40%
27 LF OF 15" RCP @ 0.40%
226 LF OF 12" RCP @ 1.73%
76 LF OF 12" RCP @ 0.42%
235 LF OF 12" RCP @ 1.18%
140 LF OF 12" RCP @ 1.18%
140 LF OF 15" RCP @ 0.80%
140 LF OF 18" RCP @ 0.50%
18 LF OF 12" RCP @ 1.00%
18 LF OF 12" RCP @ 1.00%
18 LF OF 12" RCP @ 1.00%
18 LF OF 12" RCP @ 1.00%
DE10
DK14
DK15
DL13
DL14
DL15
DL16
DL17
DL18
DL19
DM9
DM10
DM11
DM12
DM13
DM14
DM15
DM19
DM20
DM21
DM22
Propane Tank
Gravel Surface
Gas Tank
Silo
Surface
Silo
Chicken Coop
Frame Garage
Wood Deck
Storm Manhole 4' Dia.
Ty. A w/Ty. 1 F & G
Rim=(725.73)
Inv.=(709.18)
Inlet 2' Dia.
Ty. A w/Ty. 8 F & G
Rim=(725.50)
Inv.=(722.40)
Fence
Remnants



NORTH
GRAPHIC SCALE IN FEET
0
20
40
80

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STORM STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
DE10	48" MH – OPEN LID RIM: 731.67 INV OUT: 727.67 (W, 12")
DK14	48" CURB CB RIM: 726.79 INV IN: 722.66 (S, 15") INV OUT: 722.66 (N, 15")
DK15	24" INLET RIM: 726.79 INV OUT: 722.79 (N, 15")
DL13	48" MH – OPEN LID RIM: 721.56 INV IN: 717.25 (W, 24") INV OUT: 717.25 (E, 24")
DL14	48" MH – OPEN LID RIM: 724.73 INV IN: 719.81 (W, 18") INV OUT: 719.31 (E, 24")
DL15	48" MH – OPEN LID RIM: 724.96 INV IN: 720.09 (W, 18") INV OUT: 720.09 (E, 18")
DL16	48" MH – OPEN LID RIM: 725.07 INV IN: 721.45 (W, 6") INV IN: 720.45 (S, 18") INV OUT: 720.45 (E, 18")
DL17	24" CLOSED LID CLEANOUT RIM: 726.27 INV OUT: 722.27 (E, 6")
DL18	48" CURB CB RIM: 725.39 INV IN: 721.28 (S, 15") INV OUT: 721.03 (N, 18")
DL19	24" INLET RIM: 725.39 INV OUT: 721.39 (N, 15")
DM9	48" MH – OPEN LID RIM: 721.44 INV IN: 716.11 (W, 18") INV IN: 716.61 (S, 12") INV OUT: 716.11 (E, 18")
DM10	48" MH – OPEN LID RIM: 721.44 INV IN: 717.06 (W, 15") INV IN: 717.31 (S, 12") INV OUT: 716.81 (E, 18")
DM11	48" MH – OPEN LID RIM: 722.46 INV IN: 718.43 (W, 12") INV IN: 718.43 (S, 12") INV OUT: 718.18 (E, 15")
DM12	48" MH – OPEN LID RIM: 723.46 INV IN: 720.08 (W, 12") INV IN: 720.08 (S, 12") INV OUT: 720.08 (E, 12")
DM13	48" MH – OPEN LID RIM: 726.62 INV IN: 722.83 (N, 12") INV OUT: 722.83 (E, 12")
DM14	48" MH – OPEN LID RIM: 727.16 INV IN: 723.16 (N, 12") INV OUT: 723.16 (S, 12")
DM15	48" MH – OPEN LID RIM: 731.07 INV OUT: 727.07 (S, 12")
DM19	24" MH – OPEN LID RIM: 720.49 INV OUT: 716.79 (N, 12")
DM20	24" MH – OPEN LID RIM: 720.98 INV OUT: 717.49 (N, 12")
DM21	24" MH – OPEN LID RIM: 721.98 INV OUT: 718.61 (N, 12")

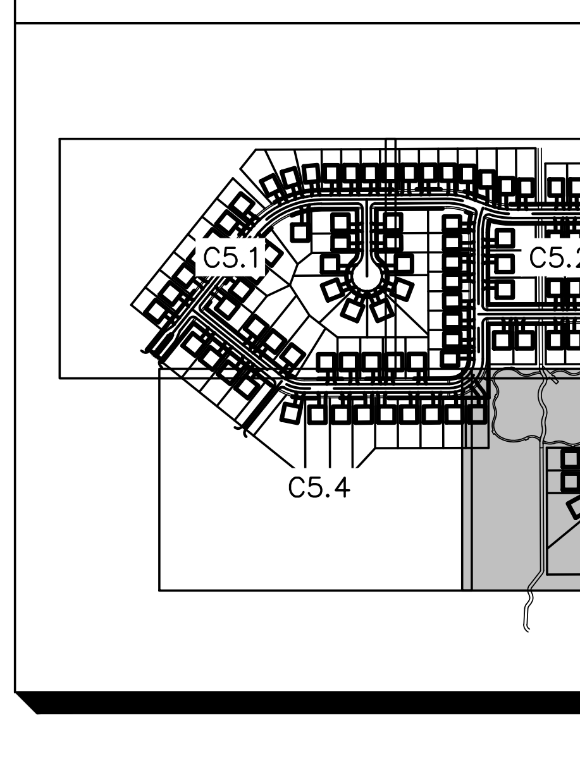
STORM SEWER NOTES

1. REFER TO SHEET C5.0 FOR ALL UTILITY AND DRAINAGE NOTES AND ADDITIONAL SYMBOL LEGEND.
2. UNLESS OTHERWISE NOTED ON PLANS, RIM GRADES ARE AT CURB FLOWLINE (TC GRADE IS 0.25' ABOVE RIM FOR M3.12 C&G)

STORM SEWER LEGEND

▬	PROPOSED STORM SEWER LINE
▨	PROPOSED OPEN LID STORM STRUCTURE (PAVEMENT USE NEENAH R–2540) (GRASS USE NEENAH R–4340–B BEEHIVE)
◉	PROPOSED CLOSED LID STORM STRUCTURE (PAVEMENT USE NEENAH R–1713) (GRASS USE NEENAH R–1786)
▥	PROPOSED COMBINATION CURB INLET (M3.12 C&G USE NEENAH R–3501–E2) (B6.12 C&G USE NEENAH R–3281–A)
⊳	PROPOSED FLARED END SECTION (ALL REQUIRED GRATING PER IDOT STANDARDS 542301, 542306, 542311)

KEY MAP



NORTH
C5.1
C5.2
C5.3
C5.4
C5.5
C5.6

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

Kimley»Horn

570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847–260–7804
WWW.KIMLEY–HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

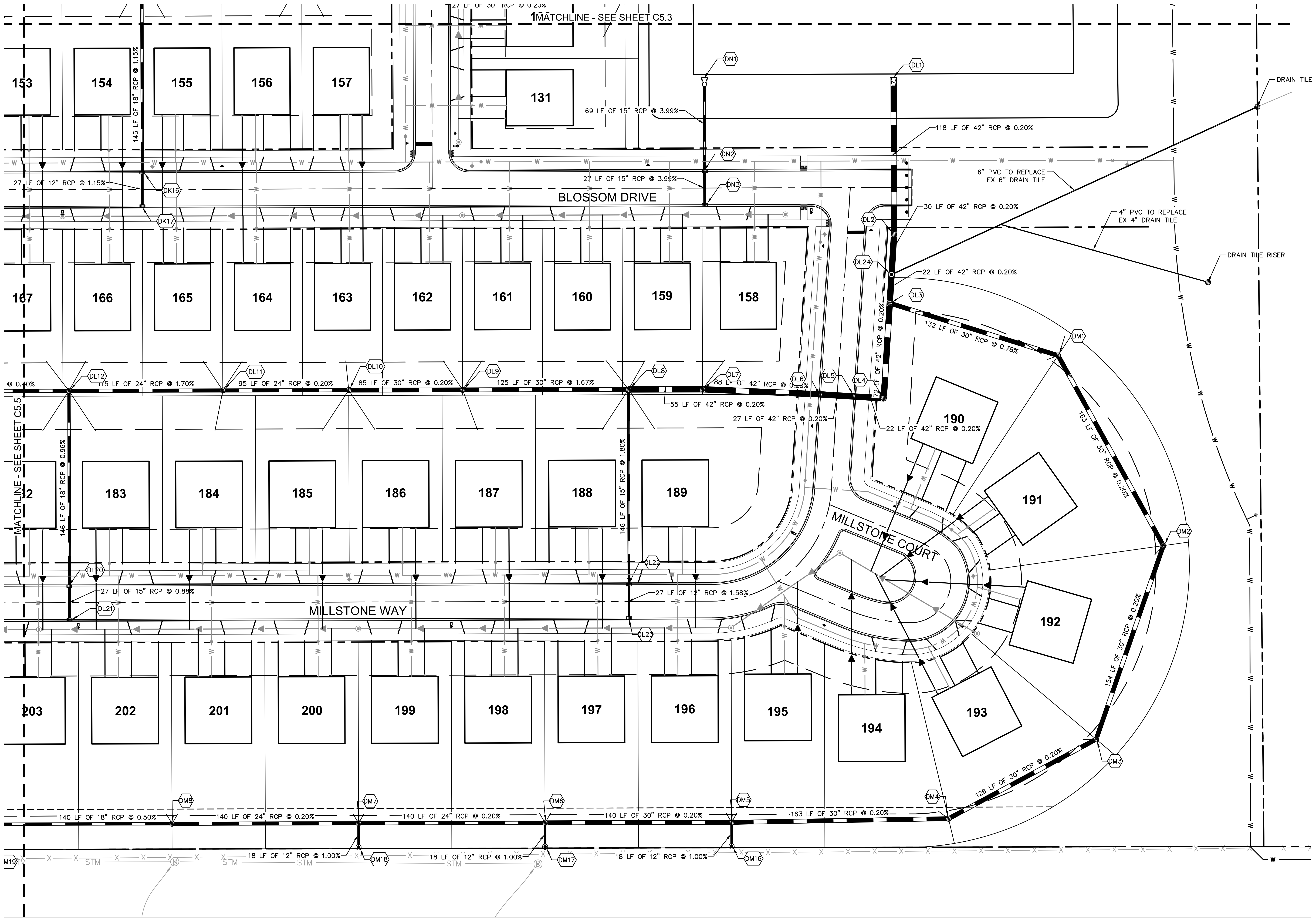
STORM SEWER PLAN

THE GROVE - AREA 1
(SINGLE FAMILY)
SUGAR GROVE, IL 60554

ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009
SHEET NUMBER
C5.5

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C5.1 STORM SEWER PLAN.dwg C5.5 Jul 01, 2025 9:40am by: Joe.Hannah

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C5.1 STORM SEWER PLAN.dwg C5.6 Jul 01, 2025 10:02am by: Joe.Hannah


MATCHLINE - SEE SHEET C5.3
MATCHLINE - SEE SHEET C5.5
BLOSSOM DRIVE
MILLSTONE WAY
MILLSTONE COURT
153
154
155
156
157
131
167
166
165
164
163
162
161
160
159
158
190
191
192
193
194
195
196
197
198
199
200
201
202
203
183
184
185
186
187
188
189
DN1
DN2
DN3
DL1
DL2
DL3
DL4
DL5
DL6
DL7
DL8
DL9
DL10
DL11
DL12
DL20
DL21
DL22
DL23
DL24
DK16
DK17
DM1
DM2
DM3
DM4
DM5
DM6
DM7
DM8
DM16
DM17
DM18
M19
145 LF OF 18" RCP @ 1.15%
27 LF OF 12" RCP @ 1.15%
27 LF OF 30" RCP @ 0.20%
69 LF OF 15" RCP @ 3.99%
27 LF OF 15" RCP @ 3.99%
118 LF OF 42" RCP @ 0.20%
30 LF OF 42" RCP @ 0.20%
22 LF OF 42" RCP @ 0.20%
72 LF OF 42" RCP @ 0.20%
6" PVC TO REPLACE EX 6" DRAIN TILE
4" PVC TO REPLACE EX 4" DRAIN TILE
DRAIN TILE RISER
DRAIN TILE RISER
132 LF OF 30" RCP @ 0.78%
163 LF OF 30" RCP @ 0.20%
154 LF OF 30" RCP @ 0.20%
126 LF OF 30" RCP @ 0.20%
-163 LF OF 30" RCP @ 0.20%
@ 0.40%
115 LF OF 24" RCP @ 1.70%
95 LF OF 24" RCP @ 0.20%
85 LF OF 30" RCP @ 0.20%
125 LF OF 30" RCP @ 1.67%
88 LF OF 42" RCP @ 0.20%
55 LF OF 42" RCP @ 0.20%
27 LF OF 42" RCP @ 0.20%
22 LF OF 42" RCP @ 0.20%
146 LF OF 18" RCP @ 0.96%
146 LF OF 15" RCP @ 1.80%
27 LF OF 15" RCP @ 0.88%
27 LF OF 12" RCP @ 1.58%
140 LF OF 18" RCP @ 0.50%
140 LF OF 24" RCP @ 0.20%
140 LF OF 24" RCP @ 0.20%
140 LF OF 30" RCP @ 0.20%
18 LF OF 12" RCP @ 1.00%
18 LF OF 12" RCP @ 1.00%
18 LF OF 12" RCP @ 1.00%
STM
W

NORTH

Call Before You Dig
JULIE
1-800-892-0123

GRAPHIC SCALE IN FEET
0 20 40 80

STORM STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
DK16	48" CURB CB RIM: 720.19 INV IN: 715.87 (S, 12") INV OUT: 715.37 (N, 18")
DK17	24" INLET RIM: 720.19 INV OUT: 716.19 (N, 12")
DL2	72" MH – OPEN LID RIM: 719.70 INV IN: 710.23 (S, 42") INV OUT: 710.23 (N, 42")
DL3	72" MH – OPEN LID RIM: 720.76 INV IN: 711.33 (E, 30") INV IN: 710.33 (S, 42") INV OUT: 710.33 (N, 42")
DL4	84" MH – OPEN LID RIM: 720.40 INV IN: 710.47 (W, 42") INV OUT: 710.47 (N, 42")
DL5	72" CURB CB RIM: 719.20 INV IN: 710.51 (W, 42") INV OUT: 710.51 (E, 42")
DL6	72" INLET RIM: 719.20 INV IN: 710.57 (W, 42") INV OUT: 710.57 (E, 42")
DL7	72" MH – OPEN LID RIM: 717.67 INV IN: 710.74 (W, 42") INV OUT: 710.74 (E, 42")
DL8	72" MH – OPEN LID RIM: 717.67 INV IN: 711.85 (W, 30") INV IN: 713.10 (S, 15") INV OUT: 710.85 (E, 42")
DL9	60" MH – OPEN LID RIM: 719.07 INV IN: 713.93 (W, 30") INV OUT: 713.93 (E, 30")
DL10	60" MH – OPEN LID RIM: 719.76 INV IN: 714.60 (W, 24") INV OUT: 714.10 (E, 30")
DL11	48" MH – OPEN LID RIM: 719.18 INV IN: 714.79 (W, 24") INV OUT: 714.79 (E, 24")
DL12	48" MH – OPEN LID RIM: 721.19 INV IN: 716.75 (W, 24") INV IN: 717.25 (S, 18") INV OUT: 716.75 (E, 24")
DL20	48" CURB CB RIM: 723.14 INV IN: 718.91 (S, 15") INV OUT: 718.66 (N, 18")
DL21	24" INLET RIM: 723.14 INV OUT: 719.14 (N, 15")
DL22	48" CURB CB RIM: 720.40 INV IN: 715.97 (S, 12") INV OUT: 715.72 (N, 15")
DL23	24" INLET RIM: 720.40 INV OUT: 716.40 (N, 12")
DL24	72" MH – CLOSED LID CONNECT TO EXISTING DRAIN TILE CONTRACTOR TO VERIFY INVERT ELEVATION RIM: 720.42 INV IN: 710.29 (S, 42") INV IN: 713.13 (NE, 6") INV OUT: 710.29 (N, 42")
DM1	60" MH – OPEN LID RIM: 721.41 INV IN: 712.36 (SE, 30") INV OUT: 712.36 (W, 30")
DM2	60" MH – OPEN LID RIM: 721.99 INV IN: 712.69 (S, 30") INV OUT: 712.69 (NW, 30")

STORM STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:
DM3	60" MH – OPEN LID RIM: 721.95 INV IN: 712.99 (SW, 30") INV OUT: 712.99 (N, 30")
DM4	60" MH – OPEN LID RIM: 721.91 INV IN: 713.24 (W, 30") INV OUT: 713.24 (NE, 30")
DM5	60" MH – OPEN LID RIM: 719.74 INV IN: 713.57 (W, 30") INV IN: 715.07 (S, 12") INV OUT: 713.57 (E, 30")
DM6	60" MH – OPEN LID RIM: 718.93 INV IN: 714.35 (W, 24") INV IN: 715.35 (S, 12") INV OUT: 713.85 (E, 30")
DM7	48" MH – OPEN LID RIM: 719.72 INV IN: 714.63 (W, 24") INV IN: 715.63 (S, 12") INV OUT: 714.63 (E, 24")
DM8	48" MH – OPEN LID RIM: 719.72 INV IN: 715.41 (W, 18") INV OUT: 714.91 (E, 24")
DM16	24" MH – OPEN LID RIM: 719.72 INV OUT: 715.25 (N, 12")
DM17	24" MH – OPEN LID RIM: 718.96 INV OUT: 715.53 (N, 12")
DM18	24" MH – OPEN LID RIM: 719.60 INV OUT: 715.81 (N, 12")
DN2	48" CURB CB RIM: 717.84 INV IN: 712.76 (S, 15") INV OUT: 712.76 (N, 15")
DN3	24" INLET RIM: 717.84 INV OUT: 713.84 (N, 15")

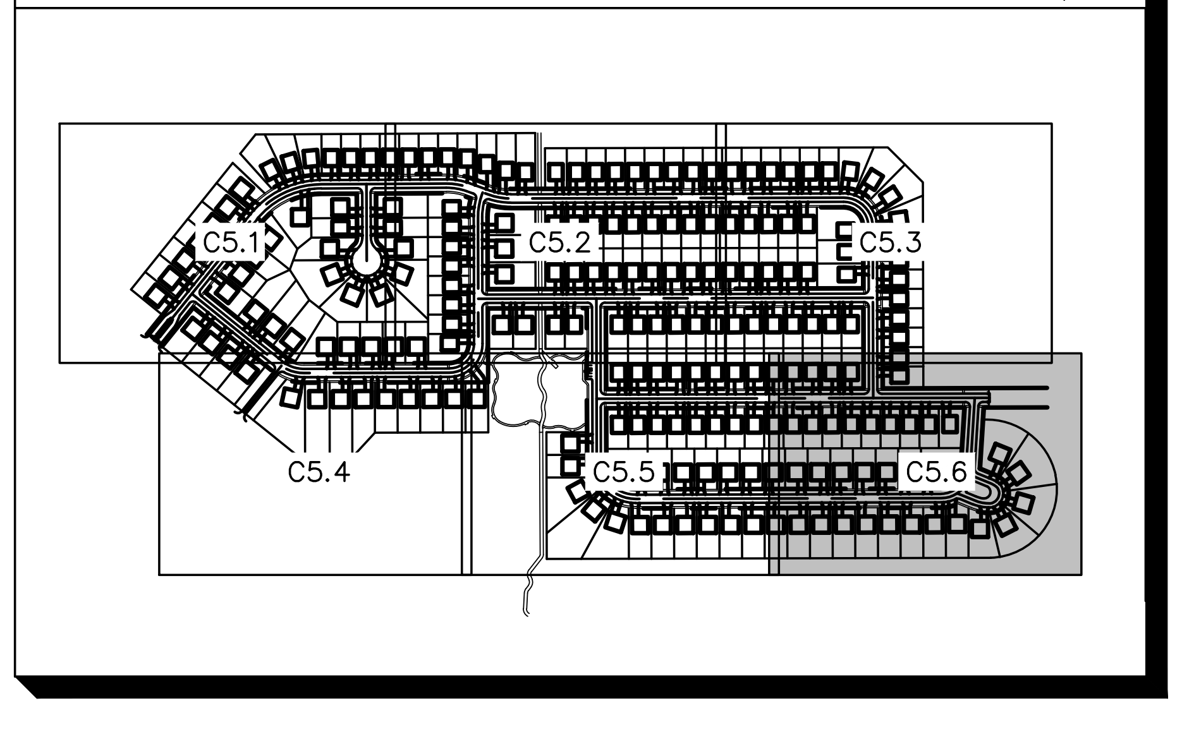
STORM SEWER NOTES

1. REFER TO SHEET C5.0 FOR ALL UTILITY AND DRAINAGE NOTES AND ADDITIONAL SYMBOL LEGEND.
2. UNLESS OTHERWISE NOTED ON PLANS, RIM GRADES ARE AT CURB FLOWLINE (TC GRADE IS 0.25' ABOVE RIM FOR M3.12 C&G)

STORM SEWER LEGEND

▬	PROPOSED STORM SEWER LINE
▨	PROPOSED OPEN LID STORM STRUCTURE (PAVEMENT USE NEENAH R–2540) (GRASS USE NEENAH R–4340–B BEEHIVE)
◉	PROPOSED CLOSED LID STORM STRUCTURE (PAVEMENT USE NEENAH R–1713) (GRASS USE NEENAH R–1786)
▥	PROPOSED COMBINATION CURB INLET (M3.12 C&G USE NEENAH R–3501–E2) (B6.12 C&G USE NEENAH R–3281–A)
▷	PROPOSED FLARED END SECTION (ALL REQUIRED GRATING PER IDOT STANDARDS 542301, 542306, 542311)

KEY MAP


NORTH
C5.1
C5.2
C5.3
C5.4
C5.5
C5.6

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

Kimley»Horn
© 2025 KIMLEY–HORN AND ASSOCIATES, INC.
570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847–260–7804
WWW.KIMLEY–HORN.COM

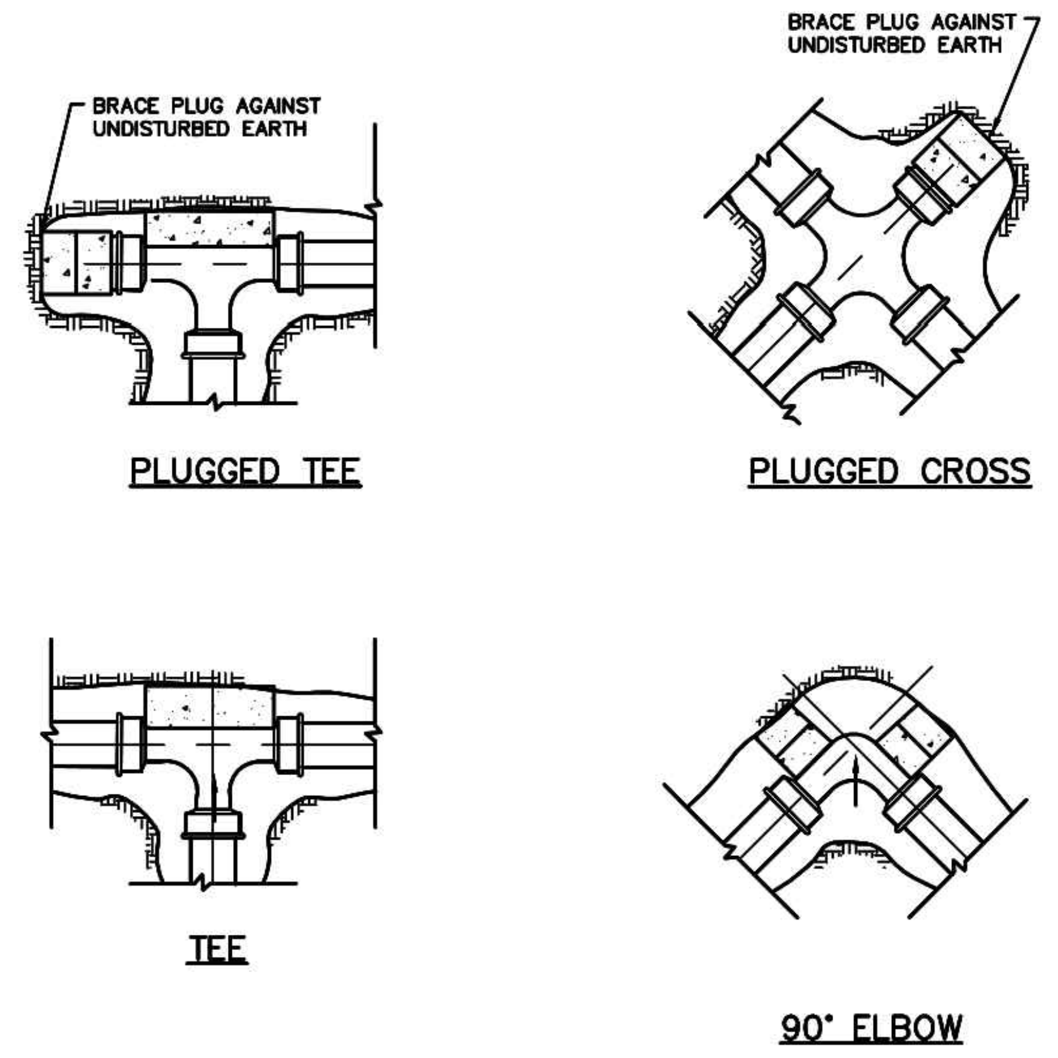
SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

STORM SEWER PLAN

THE GROVE - AREA 1 (SINGLE FAMILY)
SUGAR GROVE, IL 60554

ORIGINAL ISSUE: 1/31/2025
KHA PROJECT NO. 168740009
SHEET NUMBER
C5.6


BRACE PLUG AGAINST UNDISTURBED EARTH
PLUGGED TEE
BRACE PLUG AGAINST UNDISTURBED EARTH
PLUGGED CROSS
TEE
90° ELBOW

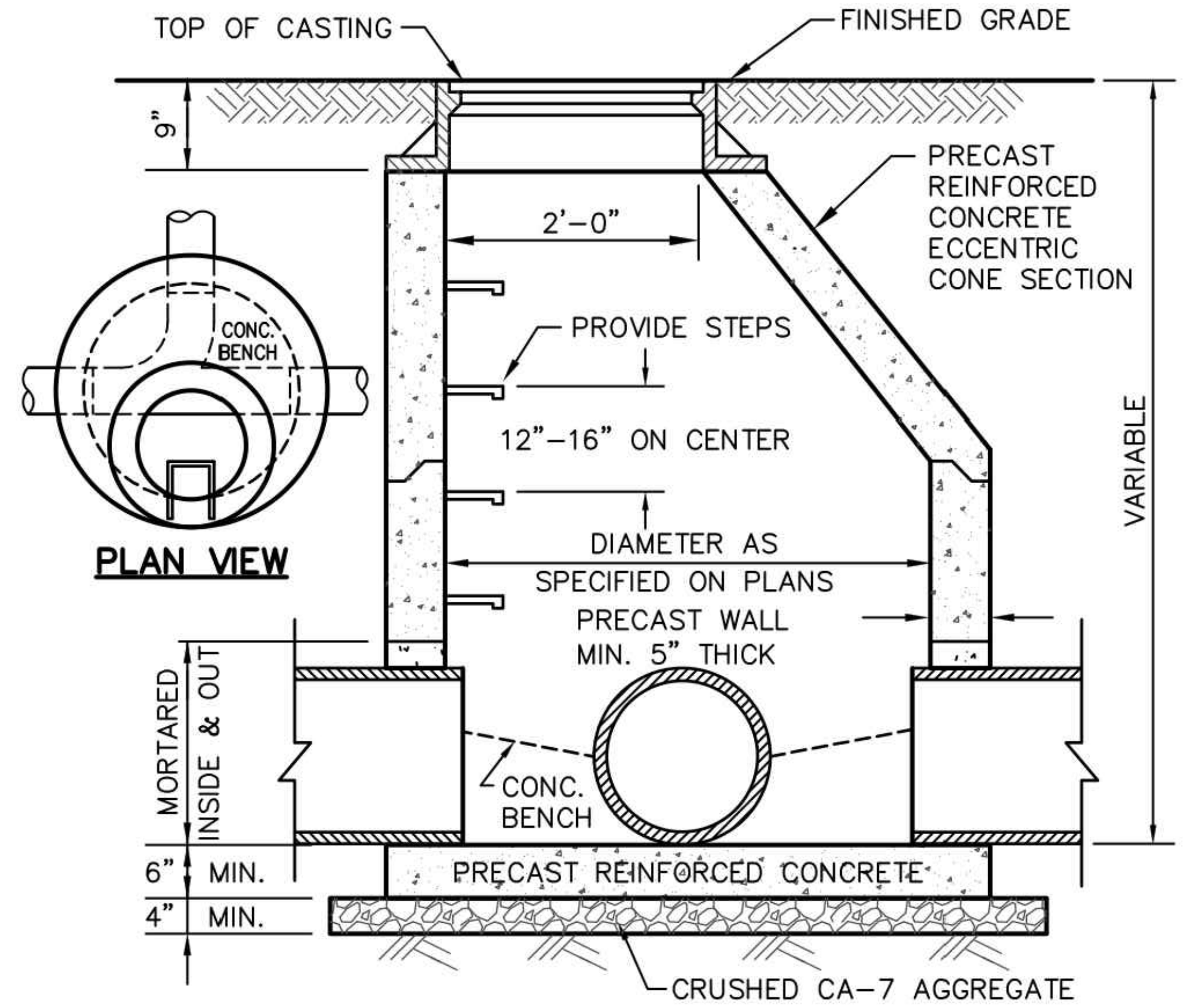
NOTES:

1. ALL PRECAST CONCRETE BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH.
2. ARROWS INDICATE DIRECTION OF THRUST.
3. ALL BLOCKS TO BE 3000 P.S.I. CONCRETE AND A MINIMUM OF 12" THICK.
4. ALL FITTINGS SHOWN IN PLAN VIEW EXCEPT WATER MAIN LOWERING IS IN PROFILE..

TYPICAL THRUST BLOCK INSTALLATION

Village of Sugar Grove
10 Municipal Drive
Sugar Grove, Illinois 60554
Phone: (630) 391-7200

SCALE: N.T.S.
DATE: 4/2/24
FOLDER: SG-WA
DRAWING NUMBER: 11
DRAWN BY: CLN
REVISED:


TOP OF CASTING
FINISHED GRADE
9"
2'-0"
PRECAST REINFORCED CONCRETE ECCENTRIC CONE SECTION
CONC. BENCH
PROVIDE STEPS
12"-16" ON CENTER
PLAN VIEW
DIAMETER AS SPECIFIED ON PLANS
PRECAST WALL MIN. 5" THICK
VARIABLE
MORTARED INSIDE & OUT
CONC. BENCH
6" MIN.
4" MIN.
PRECAST REINFORCED CONCRETE
CRUSHED CA-7 AGGREGATE

NOTES:

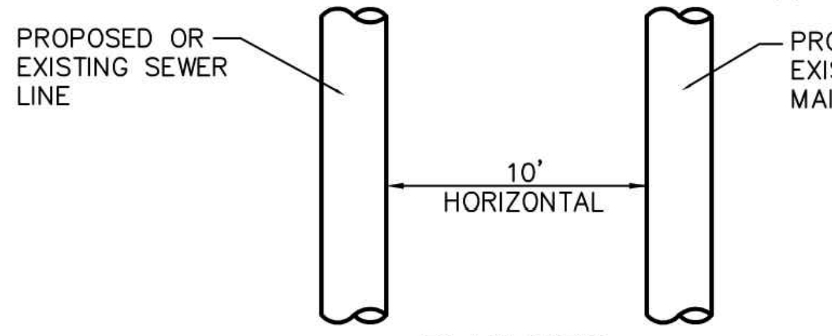
1. IN TURF AREAS, FRAME AND LID SHALL BE NEENAH R-1713 FRAME WITH TYPE B COVER, EJIW 1050, OR APPROVED EQUAL.
2. ALL "CLOSED" LIDS SHALL HAVE "VILLAGE OF SUGAR GROVE"AND "STORM" CAST INTO THEM.
3. IN PAVED AREAS, CAST-IN-PLACE CONCRETE BLOCKING A MINIMUM OF 10" THICK, EXTENDING 18" OUT FROM THE FRAME IS REQUIRED. THE SURFACE OF THE CONCRETE BLOCKING SHALL BE SET TO THE ELEVATION OF THE TOP OF THE BITUMINOUS BINDER COURSE. IN CONCRETE PAVEMENT APPLICATIONS, THE SURFACE OF THE BLOCKING SHALL MATCH THE FINISH PAVEMENT SURFACE.
4. A MAXIMUM OF 8" OF ADJUSTING RINGS SHALL BE USED FOR ALL MANHOLES. NO MORE THAN 2 PRECAST ADJUSTING RINGS, TOTALING NO MORE THAN 8" SHALL BE USED. BETWEEN EACH SECTION JOINT, ADJUSTING RING AND FRAME, APPLY A CONTINUOUS LAYER OF NON-HARDENING PREFORMED BITUMINOUS MASTIC MATERIAL.

STORM MANHOLE TYPE A

Village of Sugar Grove
10 Municipal Drive
Sugar Grove, Illinois 60554
Phone: (630) 391-7200

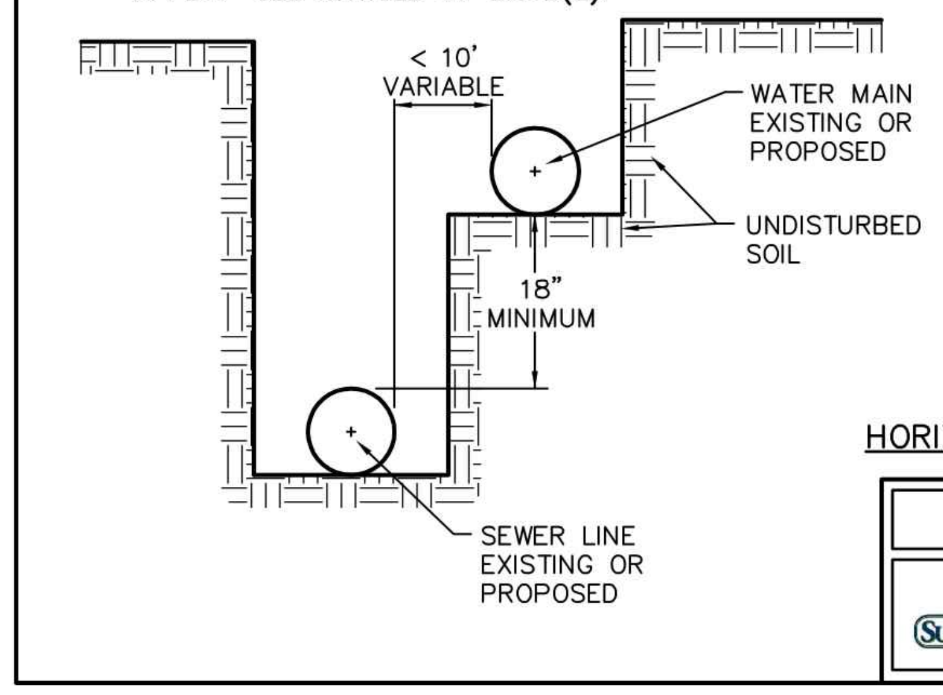
SCALE: N.T.S.
DATE: 4/2/24
FOLDER: SG-ST
DRAWING NUMBER: 01
DRAWN BY: CLN
REVISED:

PROPOSED SEWER (OR WATER) IS LOCATED 10 FEET OR MORE FROM EXISTING WATER (OR SEWER), NO SPECIAL CONSTRUCTION REQUIRED. SEE ARTICLE 41-2.01A(1).


PROPOSED OR EXISTING SEWER LINE
PROPOSED OR EXISTING WATER MAIN
10' HORIZONTAL

PLAN VIEW

PROPOSED SEWER (OR WATER) IS LOCATED LESS THAN 10 FEET FROM EXISTING WATER (OR SEWER), DETAILS BELOW SHALL APPLY. SEE ARTICLE 41-2.01B(2).

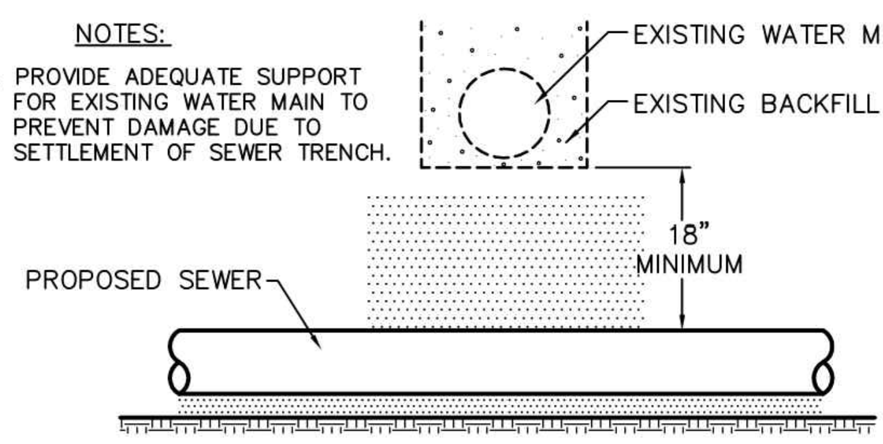

< 10' VARIABLE
WATER MAIN EXISTING OR PROPOSED
UNDISTURBED SOIL
18" MINIMUM
SEWER LINE EXISTING OR PROPOSED

HORIZONTAL

PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH 18" MINIMUM VERTICAL SEPARATION.

NOTES:

1. PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH.


EXISTING WATER MAIN
EXISTING BACKFILL
18" MINIMUM
PROPOSED SEWER

PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH LESS THAN 18" MINIMUM VERTICAL SEPARATION.

NOTE: CLASS IV MATERIAL TO BE COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY. DENSITY.

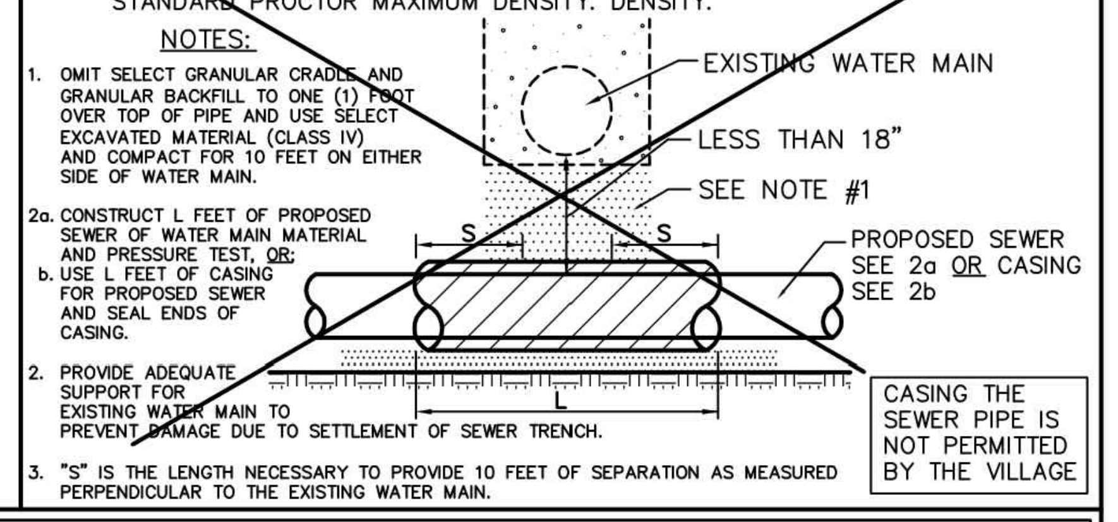
NOTES:

1. OMIT SELECT GRANULAR CRADLE AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF PIPE AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT FOR 10 FEET ON EITHER SIDE OF WATER MAIN.

2a. CONSTRUCT L FEET OF PROPOSED SEWER OF WATER MAIN MATERIAL AND PRESSURE TEST, OR;
b. USE L FEET OF CASING FOR PROPOSED SEWER AND SEAL ENDS OF CASING.

2. PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH.

3. "S" IS THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING WATER MAIN.

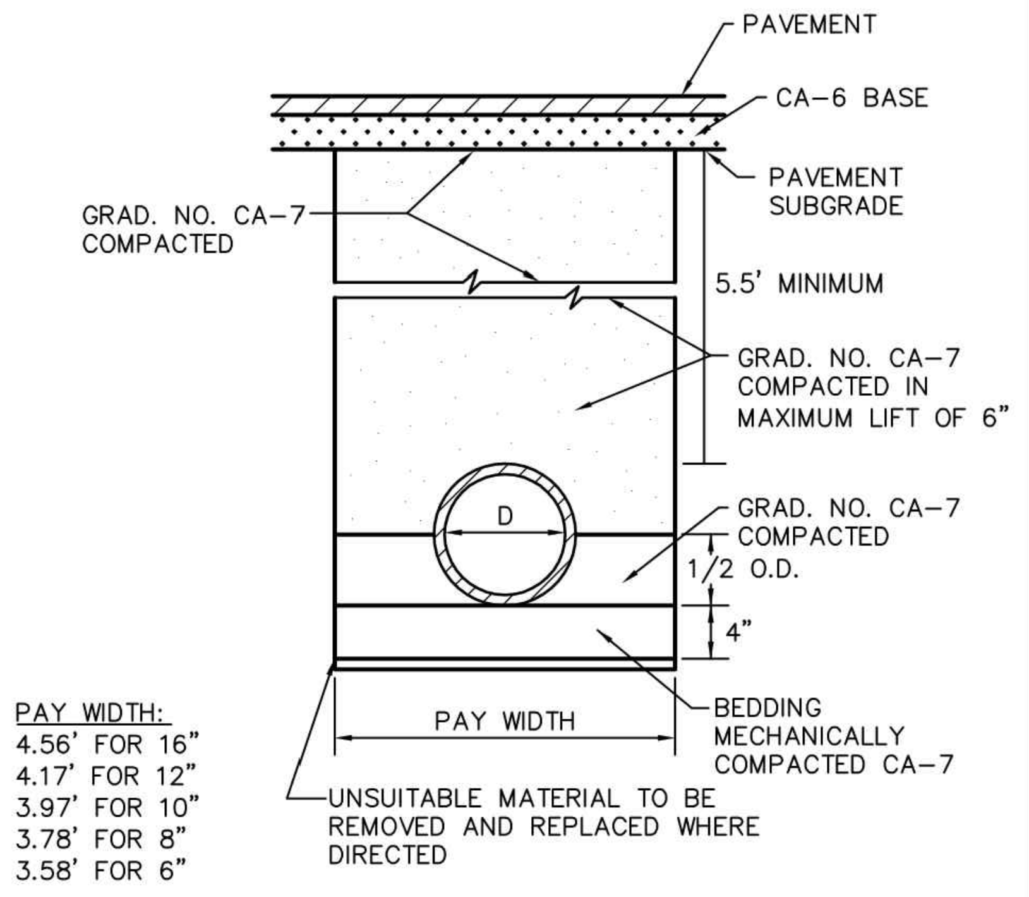

EXISTING WATER MAIN
LESS THAN 18"
SEE NOTE #1
S
S
L
PROPOSED SEWER SEE 2a OR CASING SEE 2b

CASING THE SEWER PIPE IS NOT PERMITTED BY THE VILLAGE

WATER & SEWER SEPARATION REQUIREMENTS

Village of Sugar Grove
10 Municipal Drive
Sugar Grove, Illinois 60554
Phone: (630) 391-7200

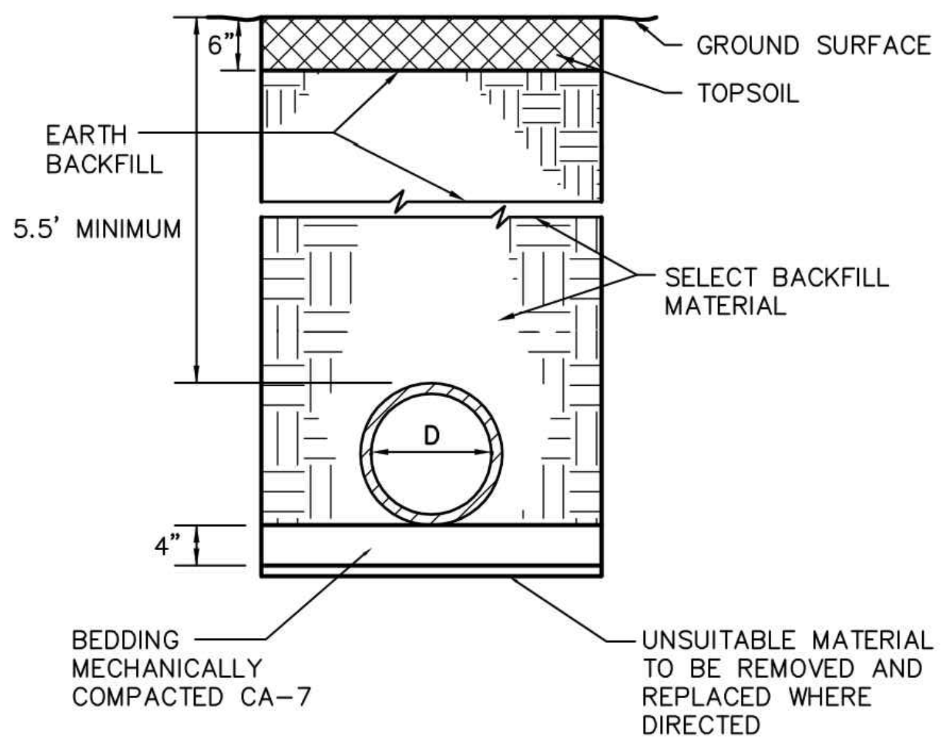
SCALE: N.T.S.
DATE: 4/2/24
FOLDER: SG-WA
DRAWING NUMBER: 05
DRAWN BY: CLN
REVISED:


PAVEMENT
CA-6 BASE
PAVEMENT SUBGRADE
GRAD. NO. CA-7 COMPACTED
5.5' MINIMUM
GRAD. NO. CA-7 COMPACTED IN MAXIMUM LIFT OF 6"
D
GRAD. NO. CA-7 COMPACTED
1/2 O.D.
4"
PAY WIDTH
BEDDING MECHANICALLY COMPACTED CA-7
UNSUITABLE MATERIAL TO BE REMOVED AND REPLACED WHERE DIRECTED

PAY WIDTH:
4.56' FOR 16"
4.17' FOR 12"
3.97' FOR 10"
3.78' FOR 8"
3.58' FOR 6"

PAVED AREAS & DRIVEWAYS

TRENCH BACKFILL INSTALLATION LIMITS ARE DEFINED AS ALL LOCATIONS UNDER AND WITHIN 2 FEET OF ANY PAVED AREA. PAVED AREAS INCLUDE SHOULDERS, CURB AND GUTTER, SIDEWALK, PATHS, AND ANY AGGREGATE SURFACE COURSE.


6"
GROUND SURFACE
TOPSOIL
EARTH BACKFILL
5.5' MINIMUM
SELECT BACKFILL MATERIAL
D
4"
BEDDING MECHANICALLY COMPACTED CA-7
UNSUITABLE MATERIAL TO BE REMOVED AND REPLACED WHERE DIRECTED

GRASSED AREAS

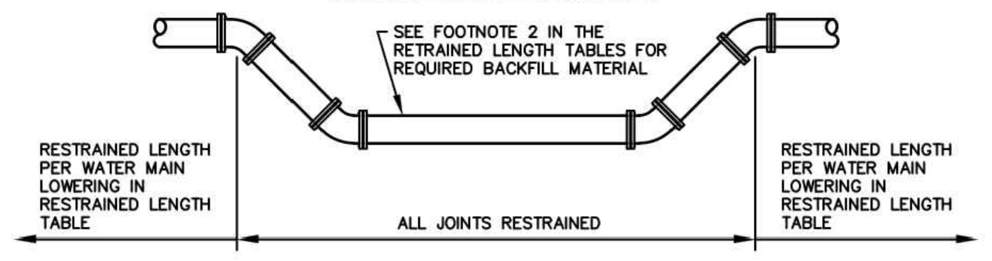
NOTE:
THE 10-POINT SOIL TEST EVALUATION FOR DUCTILE IRON PIPE CONFORMING TO ANSI/AWWA C105/A21.5 SHALL BE USED TO DETERMINE THE CORROSIVITY OF THE SOILS ON A PER PROJECT BASIS AND WHETHER OR NOT POLYETHYLENE WRAP IS REQUIRED FOR CORROSION PROTECTION.

WATER MAIN TRENCH DETAIL

Village of Sugar Grove
10 Municipal Drive
Sugar Grove, Illinois 60554
Phone: (630) 391-7200

SCALE: N.T.S.
DATE: 4/2/24
FOLDER: SG-WA
DRAWING NUMBER: 07
DRAWN BY: CLN
REVISED:

WATER MAIN LOWERING


SEE FOOTNOTE 2 IN THE RETRAINED LENGTH TABLES FOR REQUIRED BACKFILL MATERIAL
RESTRAINED LENGTH PER WATER MAIN LOWERING IN RESTRAINED LENGTH TABLE
ALL JOINTS RESTRAINED
RESTRAINED LENGTH PER WATER MAIN LOWERING IN RESTRAINED LENGTH TABLE

NOTES:

1. THE 10-POINT SOIL TEST EVALUATION FOR DUCTILE IRON PIPE CONFORMING TO ANSI/AWWA C105/A21.5 SHALL BE USED TO DETERMINE THE CORROSIVITY OF THE SOILS ON A PER PROJECT BASIS AND WHETHER OR NOT POLYETHYLENE WRAP IS REQUIRED FOR CORROSION PROTECTION.
2. MECHANICAL JOINT FITTINGS WITH RETAINER GLANDS AND FIELD LOK 350 GASKETS OR APPROVED EQUAL SHALL BE USED TO SATISFY THE RESTRAINED LENGTH REQUIREMENTS. FIELD LOK GASKETS MUST BE FROM THE SAME MANUFACTURER AS THE PIPE.
3. THE MINIMUM RESTRAINT LENGTHS ARE ALL IN ADDITION TO THE USE OF PRECAST CONCRETE THRUST BLOCKS FOR HORIZONTAL BENDS AND DEAD ENDS.
4. THE WATER MAIN LOWERING RESTRAINED LENGTH IS ON EACH SIDE OF THE OUTERMOST BENDS. WHEN LOWERING WATER MAIN UNDER A PIPE WITH 4 BENDS, ALL JOINTS SHALL BE RESTRAINED BETWEEN THE OUTERMOST 45 DEGREE BENDS. THE WATER MAIN SHALL HAVE COMPACTED CA-7 FROM 4" BELOW THE PIPE TO 6" ABOVE THE PIPE WITHIN THE LOWERED SECTION.
5. THE TOTAL LENGTH BETWEEN THE FIRST JOINTS ON EITHER SIDE OF THE TEE ON THE RUN SHALL BE A MINIMUM OF 10'.

Minimum Restrained Length Tables Without Polyethylene Wrap

Minimum Restrained Length on Each Side of Fitting (ft)[1]	8"	10"	12"	16"
11.25° Horizontal Bend	5	5	6	8
22.5° Horizontal Bend	9	11	12	16
45° Horizontal Bend	18	21	25	33
Water Main Lowering[2]	38	47	57	77
Dead End	41	50	60	79

Minimum Length of Tee Branch to be Restrained (ft)[3]	6"	8"	10"	12"	16"
8" Tee Run X Branch	25	37			
10" Tee Run X Branch	23	35	45		
12" Tee Run X Branch	22	34	44	55	
16" Tee Run X Branch	19	32	42	53	74

Minimum Restrained Length of Larger Pipe Side (ft)	8"	10"	12"
Reducer: 10" X	17		
Reducer: 12" X	32	18	
Reducer: 16" X	58	47	34

Minimum Restrained Length Tables With Polyethylene Wrap

Minimum Restrained Length on Each Side of Fitting (ft)[1]	8"	10"	12"	16"
11.25° Horizontal Bend	5	6	7	10
22.5° Horizontal Bend	10	12	15	19
45° Horizontal Bend	21	25	30	39
Water Main Lowering[2]	56	69	83	111
Dead End	59	71	85	112

Minimum Length of Tee Branch to be Restrained (ft)[3]	6"	8"	10"	12"	16"
8" Tee Run X Branch	36	52			
10" Tee Run X Branch	33	50	65		
12" Tee Run X Branch	31	49	63	78	
16" Tee Run X Branch	27	45	60	76	105

Minimum Restrained Length of Larger Pipe Side (ft)	8"	10"	12"
Reducer: 10" X	24		
Reducer: 12" X	45	25	
Reducer: 16" X	82	67	48

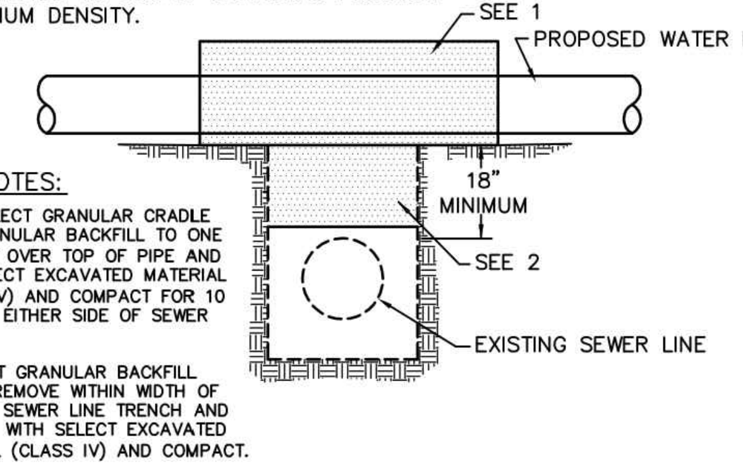
MINIMUM RESTRAINED LENGTH

Village of Sugar Grove
10 Municipal Drive
Sugar Grove, Illinois 60554
Phone: (630) 391-7200

SCALE: N.T.S.
DATE: 4/2/24
FOLDER: SG-WA
DRAWING NUMBER: 10
DRAWN BY: KKP
REVISED:

PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE WITH 18" MINIMUM SEPARATION.

NOTE: CLASS IV MATERIAL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY.


SEE 1
PROPOSED WATER MAIN
18" MINIMUM
SEE 2
EXISTING SEWER LINE

NOTES:

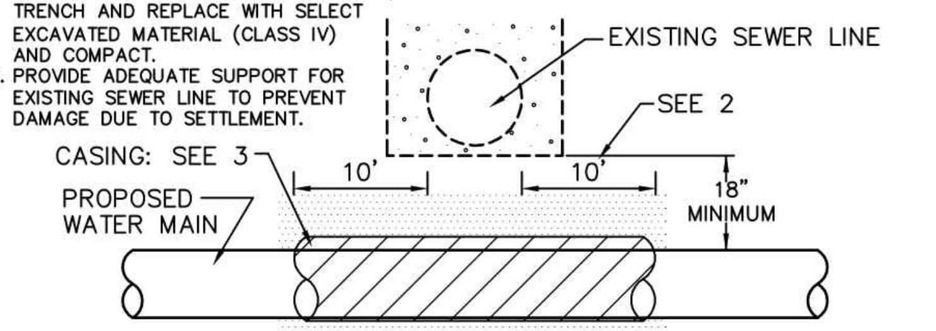
1. OMIT SELECT GRANULAR CRADLE AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF PIPE AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT FOR 10 FEET ON EITHER SIDE OF SEWER LINE.
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.

PROPOSED WATER MAIN BELOW EXISTING SEWER LINE WITH 18" MINIMUM SEPARATION.

NOTE: CLASS IV MATERIAL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY.

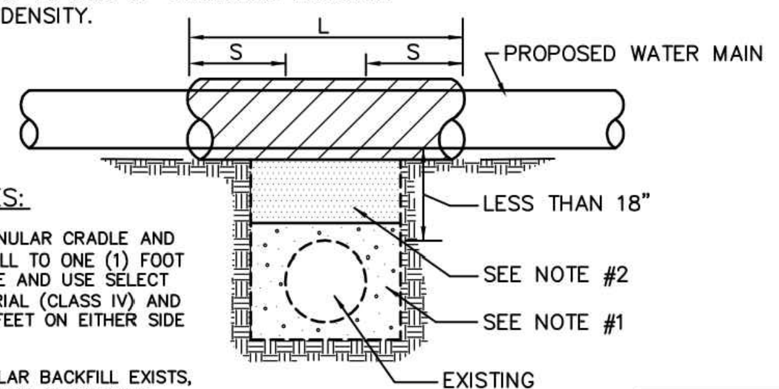
NOTES:

1. OMIT SELECT GRANULAR CRADLE AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF PIPE AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT FOR 10 FEET ON EITHER SIDE OF SEWER LINE.
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
3. PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT.


EXISTING SEWER LINE
SEE 2
CASING: SEE 3
10'
10'
18" MINIMUM
PROPOSED WATER MAIN

PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE WITH LESS THAN 18" SEPARATION.

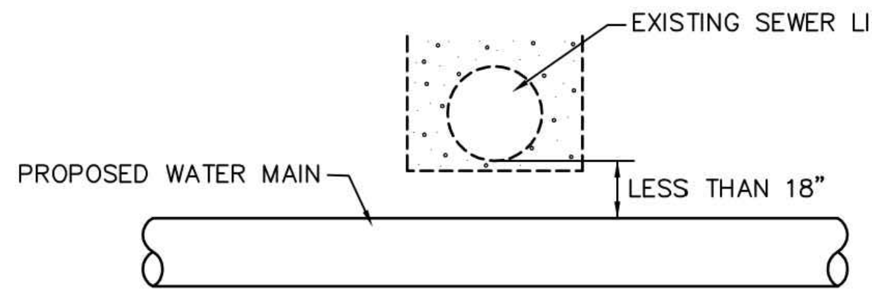
NOTE: CRUSHED CA-7 AGGREGATE SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY.


L
S
S
PROPOSED WATER MAIN
LESS THAN 18"
SEE NOTE #2
SEE NOTE #1
EXISTING SEWER LINE

NOTES:

1. OMIT SELECT GRANULAR CRADLE AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF PIPE AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT FOR S FEET ON EITHER SIDE OF SEWER LINE.
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
3. USE A CASING FOR PROPOSED WATER MAIN AND SEAL ENDS OF CASING
4. POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN OR WATER MAIN CASING AND SEWER.

PROPOSED WATER MAIN BELOW EXISTING SEWER LINE WITH LESS THAN 18" MINIMUM SEPARATION.

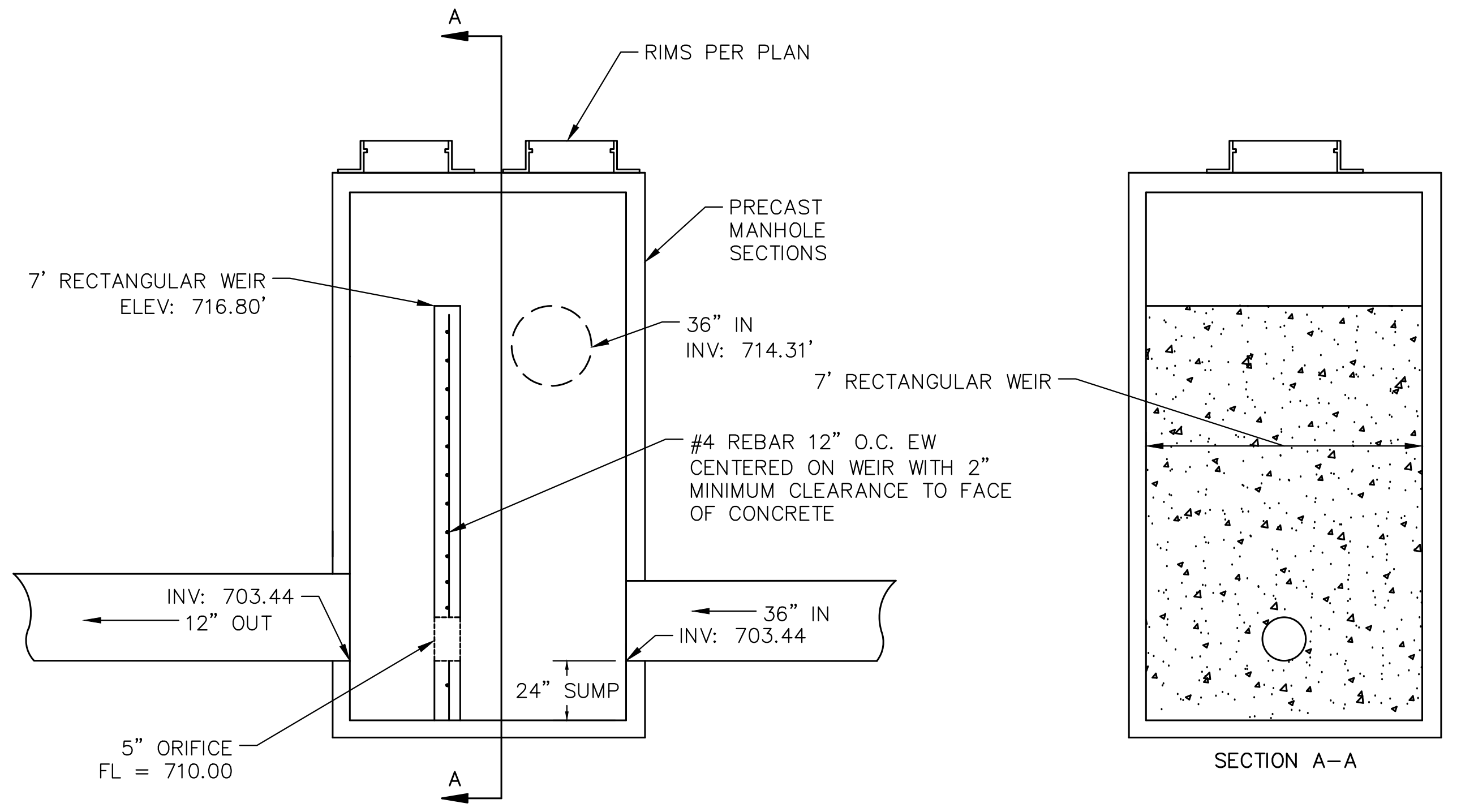

EXISTING SEWER LINE
PROPOSED WATER MAIN
LESS THAN 18"

NOT ALLOWED*
MUST MAINTAIN 18" VERTICAL SEPARATION

WATER & SEWER SEPARATION REQUIREMENTS

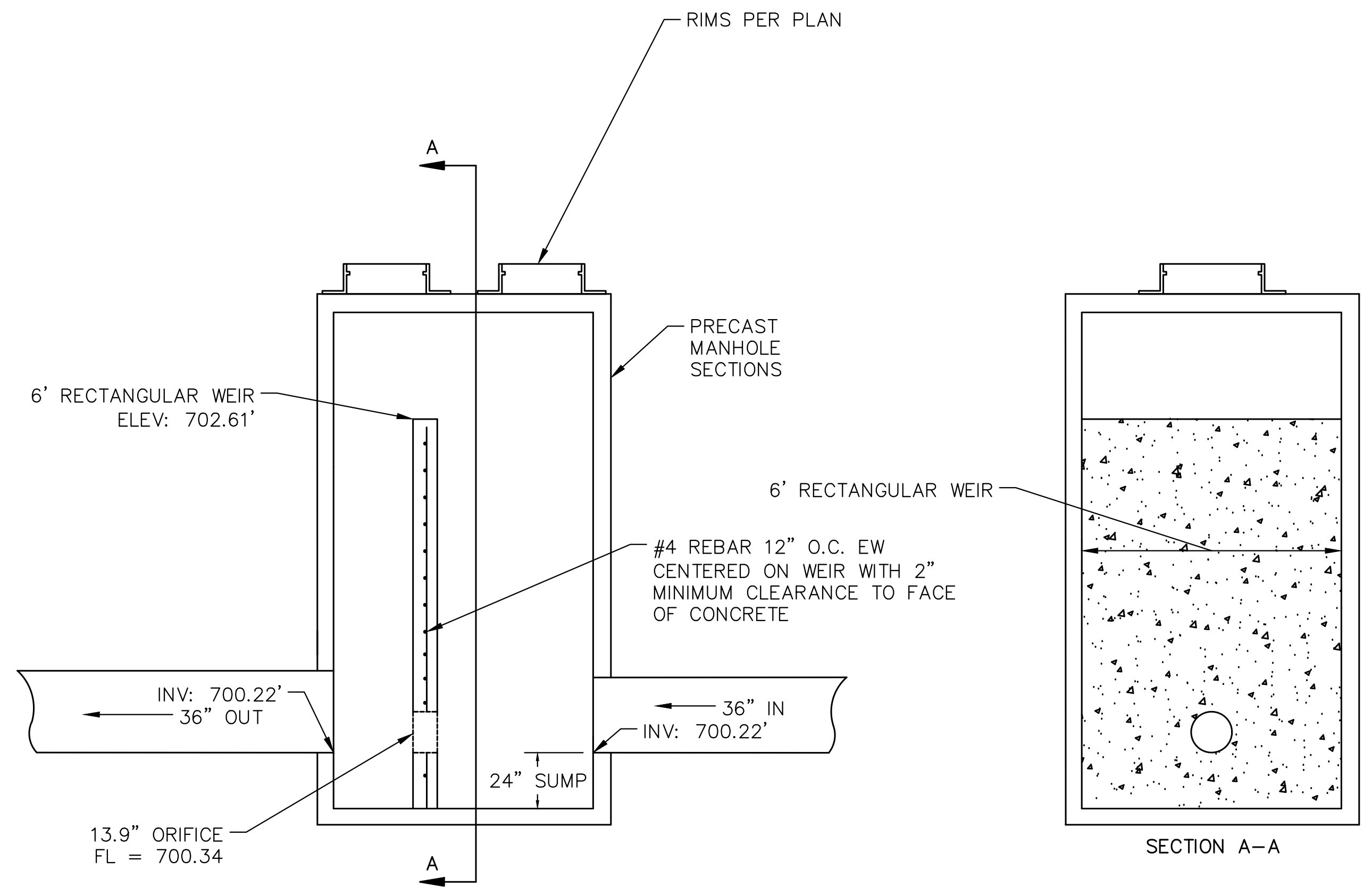
Village of Sugar Grove
10 Municipal Drive
Sugar Grove, Illinois 60554
Phone: (630) 391-7200

SCALE: N.T.S.
DATE: 4/2/24
FOLDER: SG-WA
DRAWING NUMBER: 06
DRAWN BY: CLN
REVISED:


A
RIMS PER PLAN
PRECAST MANHOLE SECTIONS
7' RECTANGULAR WEIR ELEV: 716.80'
36" IN INV: 714.31'
7' RECTANGULAR WEIR
#4 REBAR 12" O.C. EW CENTERED ON WEIR WITH 2" MINIMUM CLEARANCE TO FACE OF CONCRETE
INV: 703.44
12" OUT
36" IN
INV: 703.44
24" SUMP
5" ORIFICE FL = 710.00
A
SECTION A-A

OUTLET CONTROL STRUCTURE - DA7

N.T.S.


RIMS PER PLAN
A
PRECAST MANHOLE SECTIONS
6' RECTANGULAR WEIR ELEV: 702.61'
6' RECTANGULAR WEIR
#4 REBAR 12" O.C. EW CENTERED ON WEIR WITH 2" MINIMUM CLEARANCE TO FACE OF CONCRETE
INV: 700.22'
36" OUT
36" IN
INV: 700.22'
24" SUMP
13.9" ORIFICE FL = 700.34
A
SECTION A-A

OUTLET CONTROL STRUCTURE - DF2

N.T.S.

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

Kimley»Horn

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570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847-260-7804
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

CONSTRUCTION DETAILS

THE GROVE - AREA 1 (SINGLE FAMILY)

SUGAR GROVE, IL 60554

ORIGINAL ISSUE: 1/31/2025
KHA PROJECT NO. 168740009
SHEET NUMBER

C8.1

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C8.0 CONSTRUCTION DETAILS.dwg C8.1 Jul 01, 2025 9:41am by: Joe.Hannah
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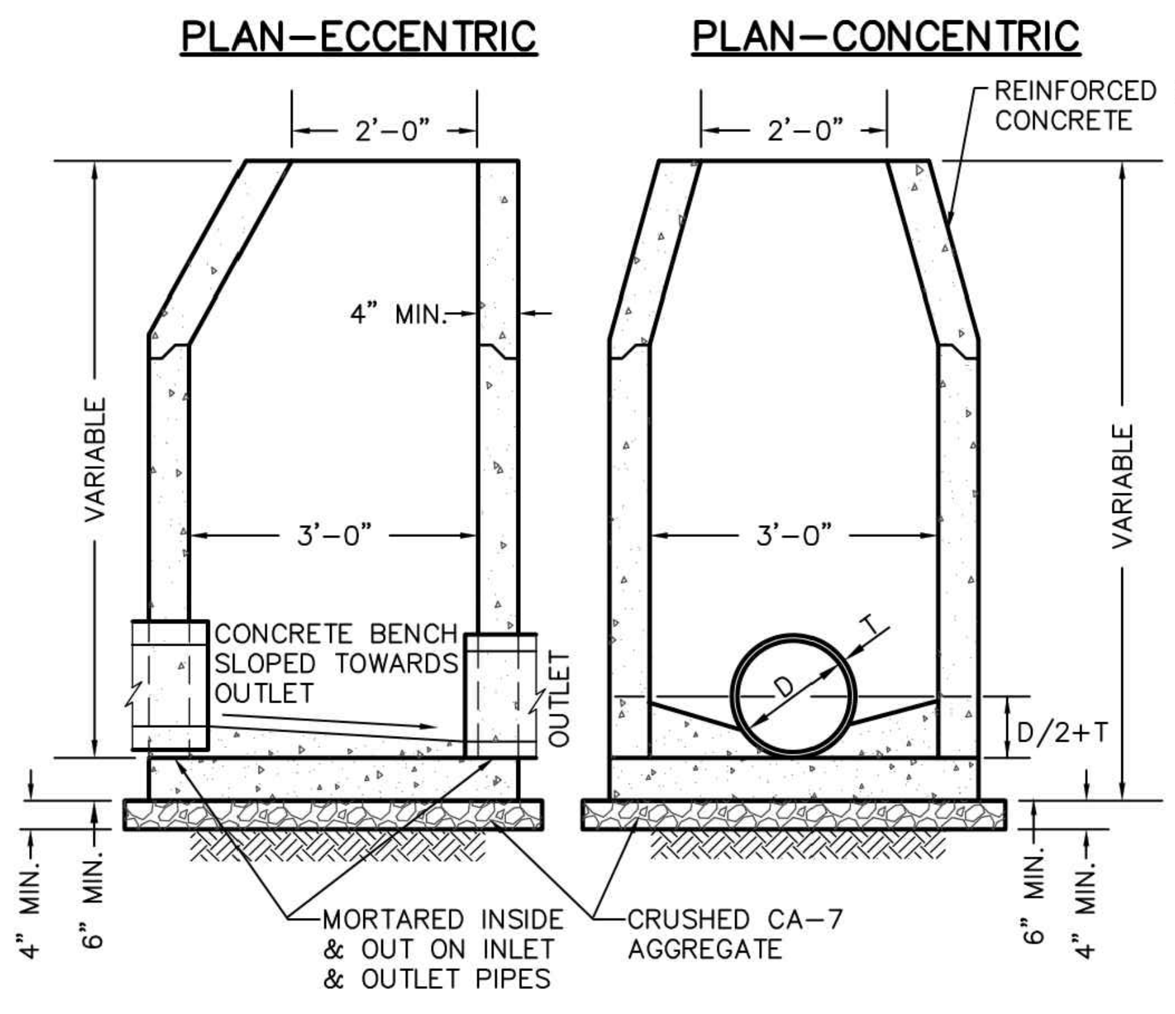


PLAN–ECCENTRIC
PLAN–CONCENTRIC
REINFORCED PRECAST CONCRETE
2'–0"
4" MIN.
VARIABLE
3'–0"
CONCRETE BENCH SLOPED TOWARDS OUTLET
OUTLET
D
T
D/2+T
4" MIN.
6" MIN.
MORTARED INSIDE & OUT ON INLET & OUTLET PIPES
CRUSHED CA–7 AGGREGATE

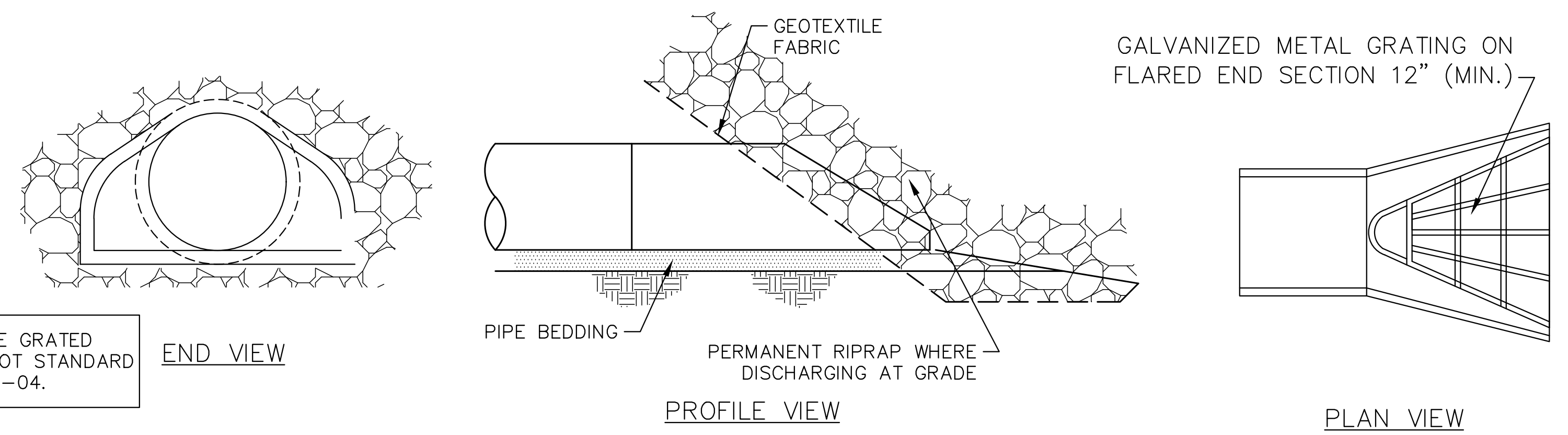
NOTES:

1. FRAME AND GRATE SHALL BE:
   - A. IN PAVED AREAS:
     - I. M–3.12 CURB & GUTTER (UNDER PONDING OR CONTINUOUS GRADE CONDITIONS): NEENAH R–3501–P, EJIW 7525, OR APPROVED EQUAL.
     - II. B–6.12 CURB AND GUTTER (UNDER PONDING CONDITIONS): NEENAH R–3281–A, EJIW 7210 W/TYPE M2 GRATE AND T1 BACK, OR APPROVED EQUAL.
     - III. B–6.12 CURB AND GUTTER (UNDER CONTINOUS GRADE CONDITIONS): NEENAH R–3281–AL, EJIW 7210 W/TYPE M4 VANE GRATE AND T1 BACK, OR APPROVED EQUAL.
   - B. IN NON–PAVED AREAS: NEENAH R–1713 WITH TYPE D COVER, EJIW 1050 WITH TYPE M1 RADIAL FLAT GRATE, OR APPROVED EQUAL.
2. ROADSIDE DITCH DRAINAGE STRUCTURES SHALL BE EVALUATED ON A CASE–BY–CASE BASIS.
3. A MAXIMUM OF 8" OF ADJUSTING RINGS SHALL BE USED FOR ALL INLETS. NO MORE THAN 2 PRECAST ADJUSTING RINGS, TOTALING NO MORE THAN 8" SHALL BE USED. BETWEEN EACH SECTION JOINT, ADJUSTING RING AND FRAME, APPLY A CONTINUOUS LAYER OF NON–HARDENING PREFORMED BITUMINOUS MASTIC MATERIAL.
4. ALL CURB INLET FRAMES SHALL BE SEALED WITH A HYDRAULIC CEMENT FILLET BETWEEN THE FRAME AND TOP ADJUSTING RING OR CONE.
5. ALL CLOSED STRUCTURE LIDS SHALL HAVE "VILLAGE OF SUGAR GROVE" AND "STORM" CAST INTO TOP AND SHALL BE THE CONCEALED PICK HOLE TYPE.

INLET - TYPE B

Village of Sugar Grove
10 Municipal Drive
Sugar Grove, Illinois 60554
Phone: (630) 391–7200

SCALE: N.T.S.
DATE: 4/2/24
FOLDER: SG-ST
DRAWING NUMBER: 05
DRAWN BY: CLN
REVISED:



GEOTEXTILE FABRIC
GALVANIZED METAL GRATING ON FLARED END SECTION 12" (MIN.)
PIPE BEDDING
PERMANENT RIPRAP WHERE DISCHARGING AT GRADE

NOTE: PROVIDE GRATED COVER PER IDOT STANDARD DETAIL 542311–04.

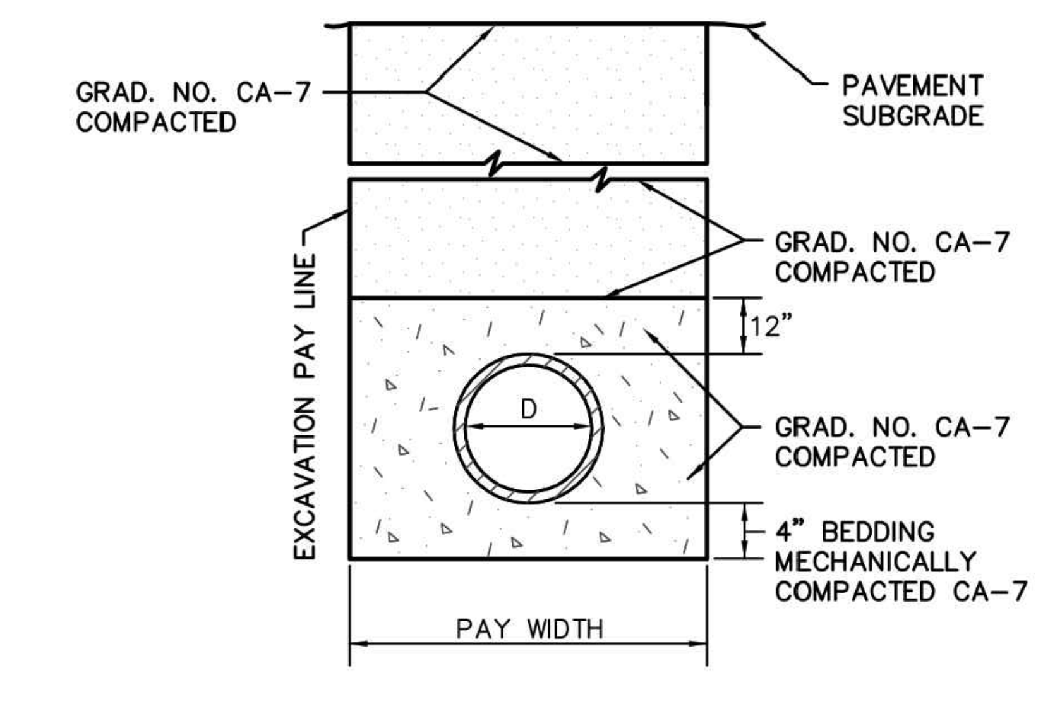
END VIEW

PROFILE VIEW

PLAN VIEW

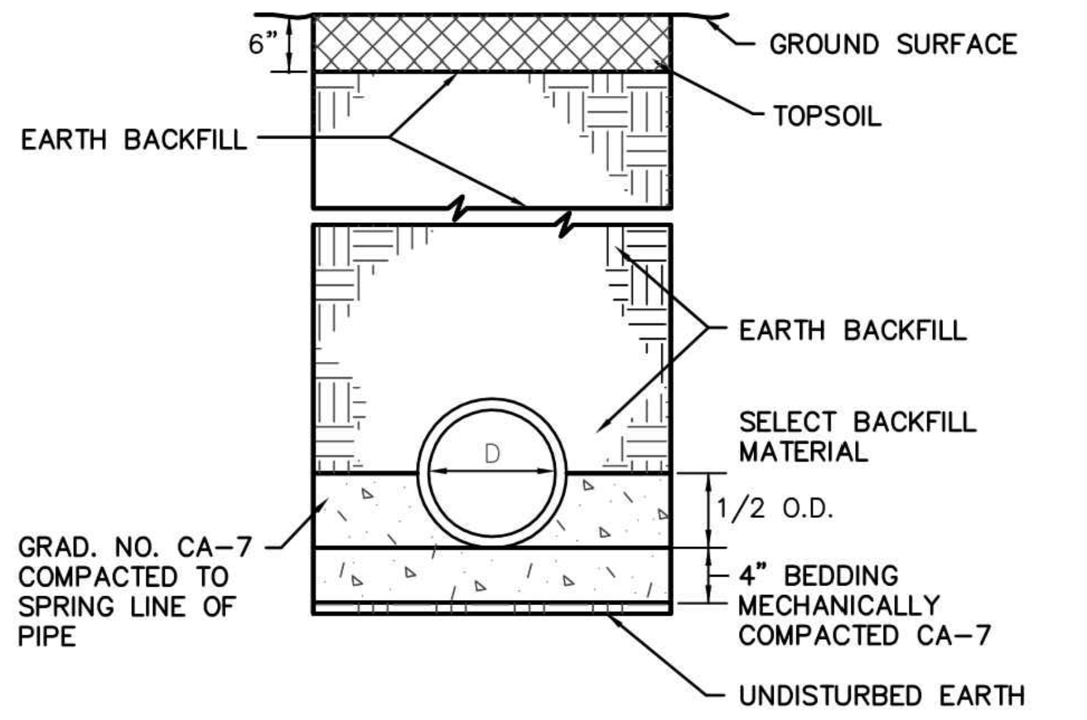
FLARED END SECTION

N.T.S.



GRAD. NO. CA–7 COMPACTED
PAVEMENT SUBGRADE
GRAD. NO. CA–7 COMPACTED
12"
EXCAVATION PAY LINE
D
GRAD. NO. CA–7 COMPACTED
4" BEDDING MECHANICALLY COMPACTED CA–7
PAY WIDTH

SECTION IN PAVED AREAS



6"
GROUND SURFACE
TOPSOIL
EARTH BACKFILL
EARTH BACKFILL
SELECT BACKFILL MATERIAL
D
1/2 O.D.
GRAD. NO. CA–7 COMPACTED TO SPRING LINE OF PIPE
4" BEDDING MECHANICALLY COMPACTED CA–7
UNDISTURBED EARTH

SECTION IN GRASS AREAS

STORM SEWER TRENCH DETAIL

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10 Municipal Drive
Sugar Grove, Illinois 60554
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DATE: 4/2/24
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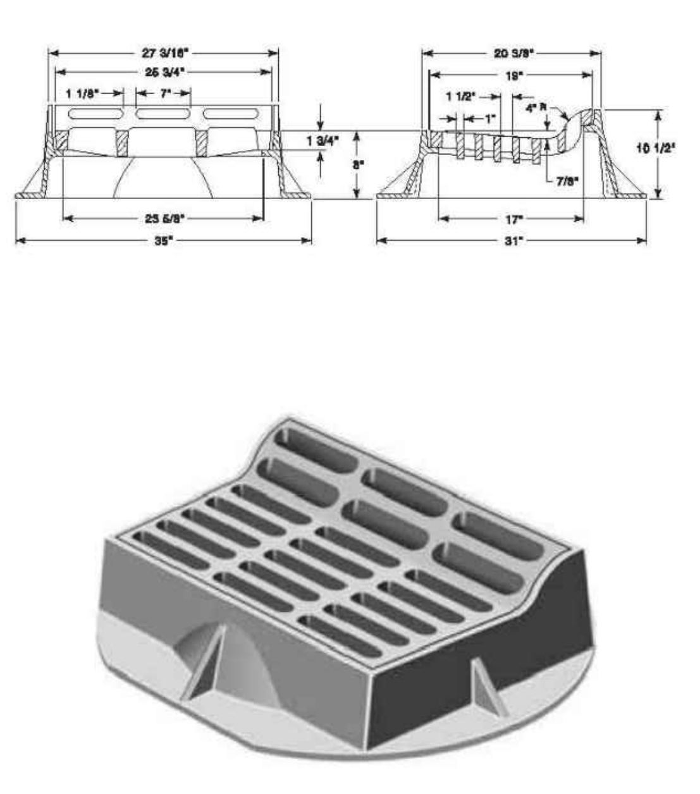
M–3.12 CURB & GUTTER
(UNDER PONDING OR CONTINUOUS GRADE CONDITIONS)

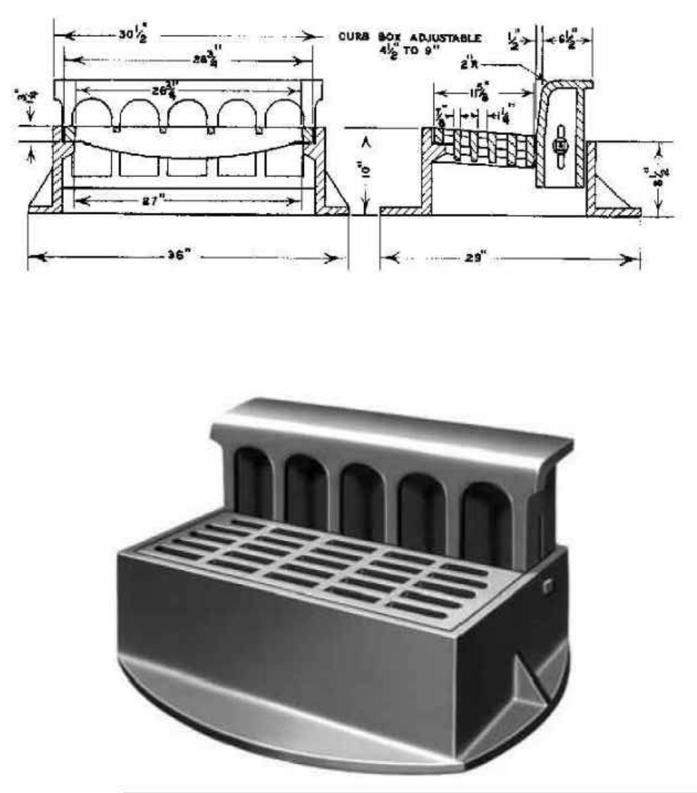
NEENAH R–3501–P, EJIW 7525 OR APPROVED EQUAL



27 3/16"
25 3/4"
1 1/8"
7"
1 3/4"
8"
25 5/8"
35"
20 5/8"
19"
1 1/2"
1"
4" R
10 1/2"
7/8"
17"
31"

B–6.12 CURB & GUTTER
(UNDER PONDING CONDITIONS)

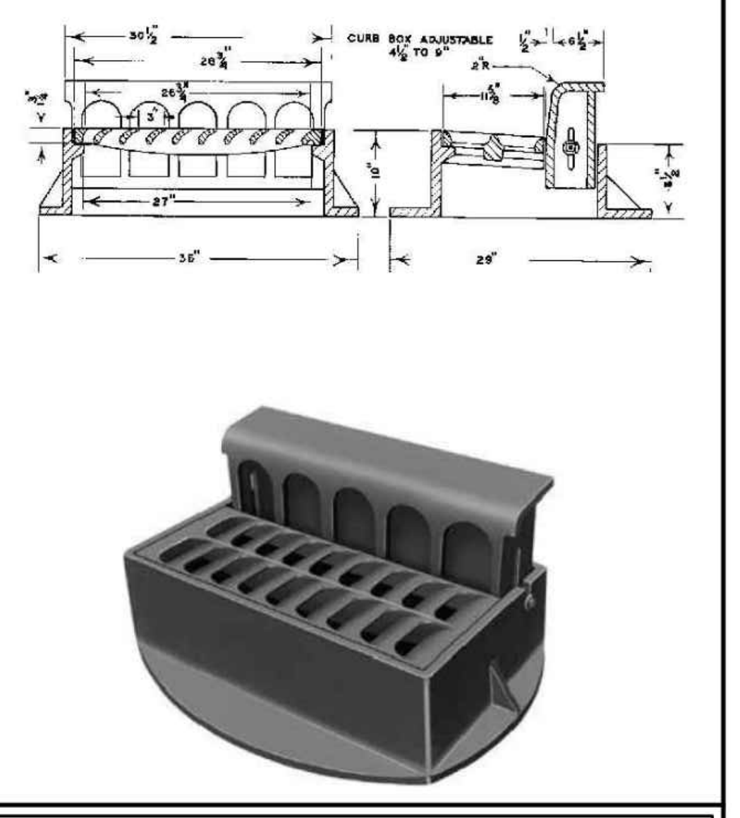
NEENAH R–3281–A, EJIW 7210 W/ TYPE M1 GRATE AND T1 BACK OR APPROVED EQUAL



30½"
28¾"
26¾"
27"
36"
CURB BOX ADJUSTABLE 4½" TO 9"
29"

B–6.12 CURB & GUTTER
(UNDER CONTINUOUS GRADE CONDITIONS)

NEENAH R–3281–AL, EJIW 7210 W/TYPE M4 VANE GRATE & T1 BACK OR APPROVED EQUAL



30½"
28¾"
26¾"
27"
36"
CURB BOX ADJUSTABLE 4½" TO 9"
29"

STANDARD CASTINGS

Village of Sugar Grove
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Sugar Grove, Illinois 60554
Phone: (630) 391–7200

SCALE: N.T.S.
DATE: 4/2/24
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DRAWING NUMBER: 06
DRAWN BY: CLN
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R–4340–B SERIES OR EAST JORDAN 6527 ROUND BEHIVE GRATE

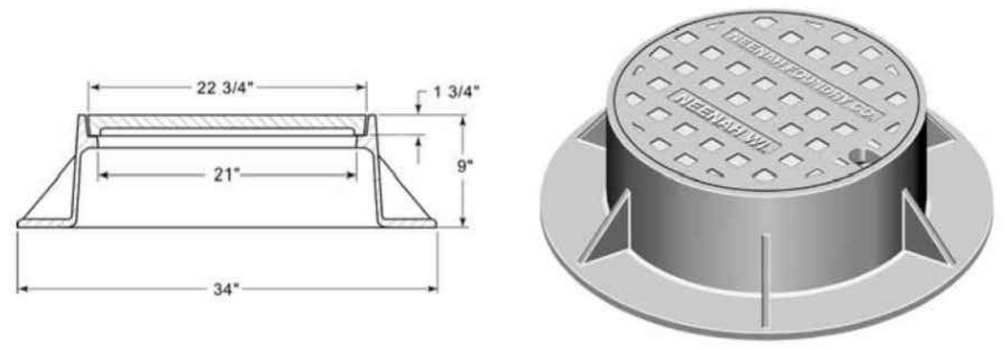
	Dimensions in inches							
Catalog No.	O Dia.	O.D. Lugs	Dia. Bhv.	Ht. Bhv.	No. Lugs	Size Bars	Size Op.	Pipe Size
R-4340-A	34	26 1/4	23 7/8	6	*	1 1/2	1	24
R-4340-B	33	23	23	2	6	2	1 1/2	24
R-4340-C	33	29	23	5 3/4	4	1	1 1/4	24
R-4340-F	33	28	25	5	4	1	1	24
R-4340-F1 **	25 1/2	21 3/4	17	3	4	1	1	18
R-4340-G **	28	18	19	3	3	1 3/4	2	15
R-4340-H	25	15	17	3	3	1 5/8	1 3/4	12

* Furnished with ring instead of lugs.
** Frame not available.
Grate flange lettered "DUMP NO WASTE – DRAINS TO RIVER"

DUMP NO WASTE – DRAINS TO RIVER

Illustrating R-4340-B

R–1713 FRAME AND LID, EJIW 1050 OR APPROVED EQUAL



22 3/4"
1 3/4"
21"
9"
34"
NEENAH FOUNDRY CO.
NEENAH, WI.

NOTE:

TYPE D GRATES TO BE USED FOR OPEN LIDS. CLOSED LIDS SHALL HAVE "VILLAGE OF SUGAR GROVE" AND "STORM" CAST INTO THE LID.

NEENAH R–2504

Illustrating type D cover – flat

STANDARD CASTINGS

Village of Sugar Grove
10 Municipal Drive
Sugar Grove, Illinois 60554
Phone: (630) 391–7200

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DATE: 4/2/24
FOLDER: SG-ST
DRAWING NUMBER: 07
DRAWN BY: CLN
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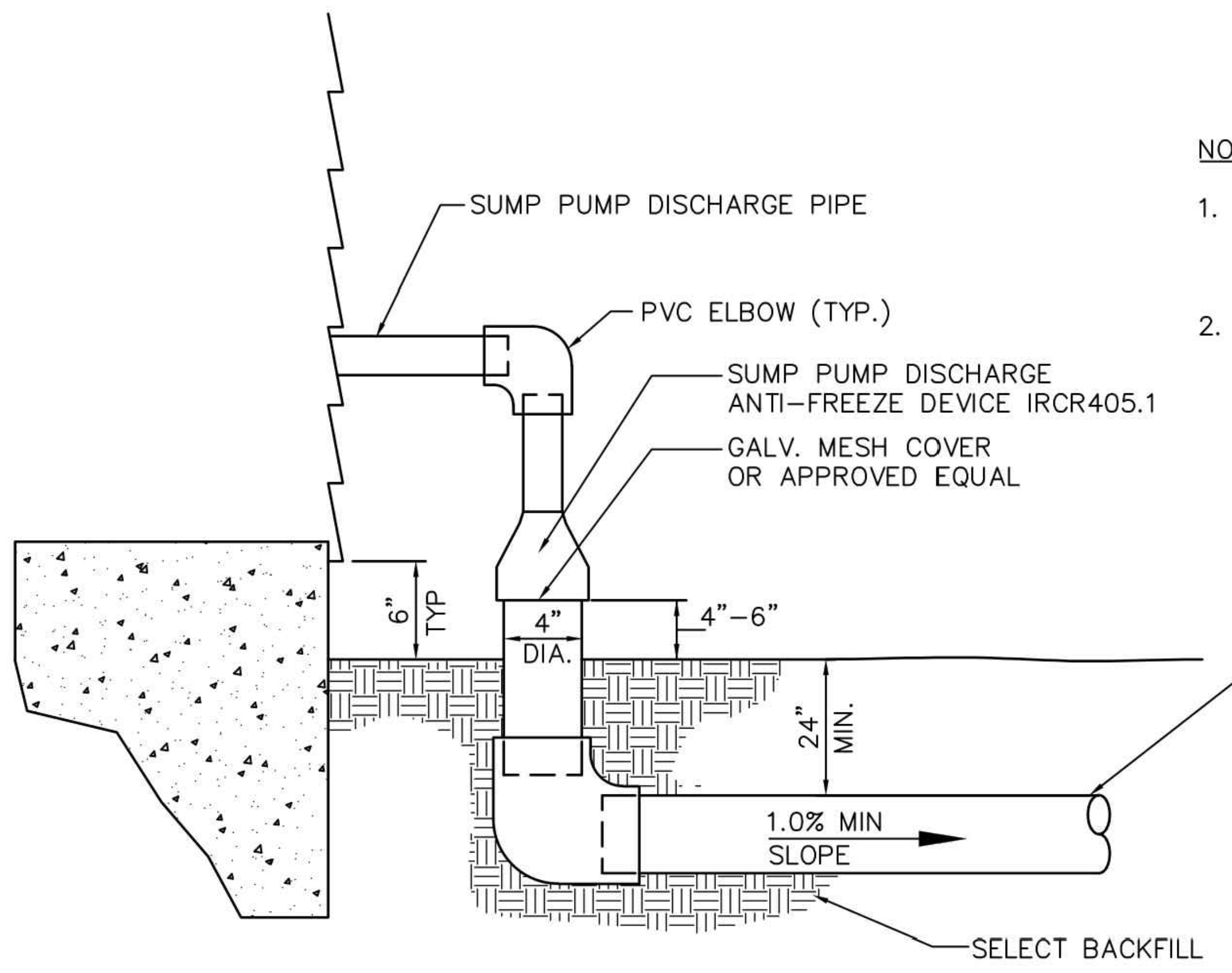

SUMP PUMP DISCHARGE PIPE
PVC ELBOW (TYP.)
SUMP PUMP DISCHARGE ANTI–FREEZE DEVICE IRCR405.1
GALV. MESH COVER OR APPROVED EQUAL
6" TYP
4" DIA.
4"–6"
24" MIN.
4" PVC DRAIN SHALL CONNECT TO STORM STRUCTURE OR SUMP PUMP DISCHARGE COLLECTOR LINE STRUCTURE
1.0% MIN SLOPE
SELECT BACKFILL

NOTES:

1. ALL SUMP PUMP SYSTEMS SHALL DISCHARGE TO THE PUBLIC STORM SEWER SYSTEM.
2. ALL PIPE USED FOR INDIVIDUAL SUMP PUMP DISCHARGE LINES SHALL BE 4" (MIN.) PVC (SDR 26).

SUMP PUMP SERVICE LINE

Village of Sugar Grove
10 Municipal Drive
Sugar Grove, Illinois 60554
Phone: (630) 391–7200

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DRAWN BY: CLN
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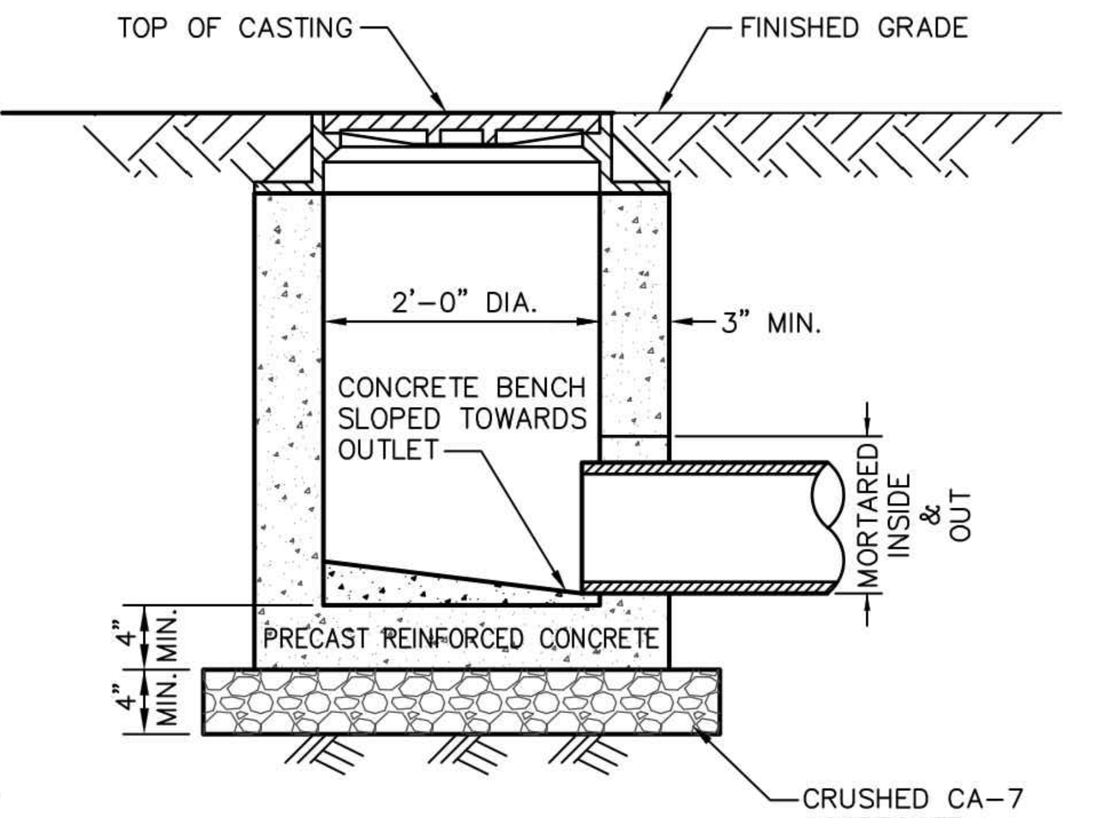

TOP OF CASTING
FINISHED GRADE
2'–0" DIA.
3" MIN.
CONCRETE BENCH SLOPED TOWARDS OUTLET
MORTARED INSIDE & OUT
4" MIN.
4" MIN.
PRECAST REINFORCED CONCRETE
CRUSHED CA–7 AGGREGATE

NOTES:

1. FRAME AND GRATE SHALL BE:
   - A. IN PAVED AREAS:
     - I. M–3.12 CURB & GUTTER (UNDER PONDING OR CONTINUOUS GRADE CONDITIONS): NEENAH R–3501–P, EJIW 7525, OR APPROVED EQUAL.
     - II. B–6.12 CURB AND GUTTER (UNDER PONDING CONDITIONS): NEENAH R–3281–A, EJIW 7210 W/TYPE M2 GRATE AND T1 BACK, OR APPROVED EQUAL.
     - III. B–6.12 CURB AND GUTTER (UNDER CONTINOUS GRADE CONDITIONS): NEENAH R–3281–AL, EJIW 7210 W/TYPE M4 VANE GRATE AND T1 BACK, OR APPROVED EQUAL.
   - B. IN NON–PAVED AREAS: NEENAH R–1713 WITH TYPE D COVER, EJIW 1050 WITH TYPE M1 RADIAL FLAT GRATE, OR APPROVED EQUAL.
2. ROADSIDE DITCH DRAINAGE STRUCTURES SHALL BE EVALUATED ON A CASE–BY–CASE BASIS.
3. A MAXIMUM OF 8" OF ADJUSTING RINGS SHALL BE USED FOR ALL CATCH BASINS. NO MORE THAN 2 PRECAST ADJUSTING RINGS, TOTALING NO MORE THAN 8" SHALL BE USED. BETWEEN EACH SECTION JOINT, ADJUSTING RING AND FRAME, APPLY A CONTINUOUS LAYER OF NON–HARDENING PREFORMED BITUMINOUS MASTIC MATERIAL.
4. ALL CURB INLET FRAMES SHALL BE SEALED WITH A HYDRAULIC CEMENT FILLET BETWEEN THE FRAME AND TOP ADJUSTING RING OR CONE.
5. ALL CLOSED STRUCTURE LIDS SHALL HAVE "VILLAGE OF SUGAR GROVE" AND "STORM" CAST INTO TOP AND SHALL BE THE CONCEALED PICK HOLE TYPE.

INLET - TYPE A

Village of Sugar Grove
10 Municipal Drive
Sugar Grove, Illinois 60554
Phone: (630) 391–7200

SCALE: N.T.S.
DATE: 4/2/24
FOLDER: SG-ST
DRAWING NUMBER: 04
DRAWN BY: CLN
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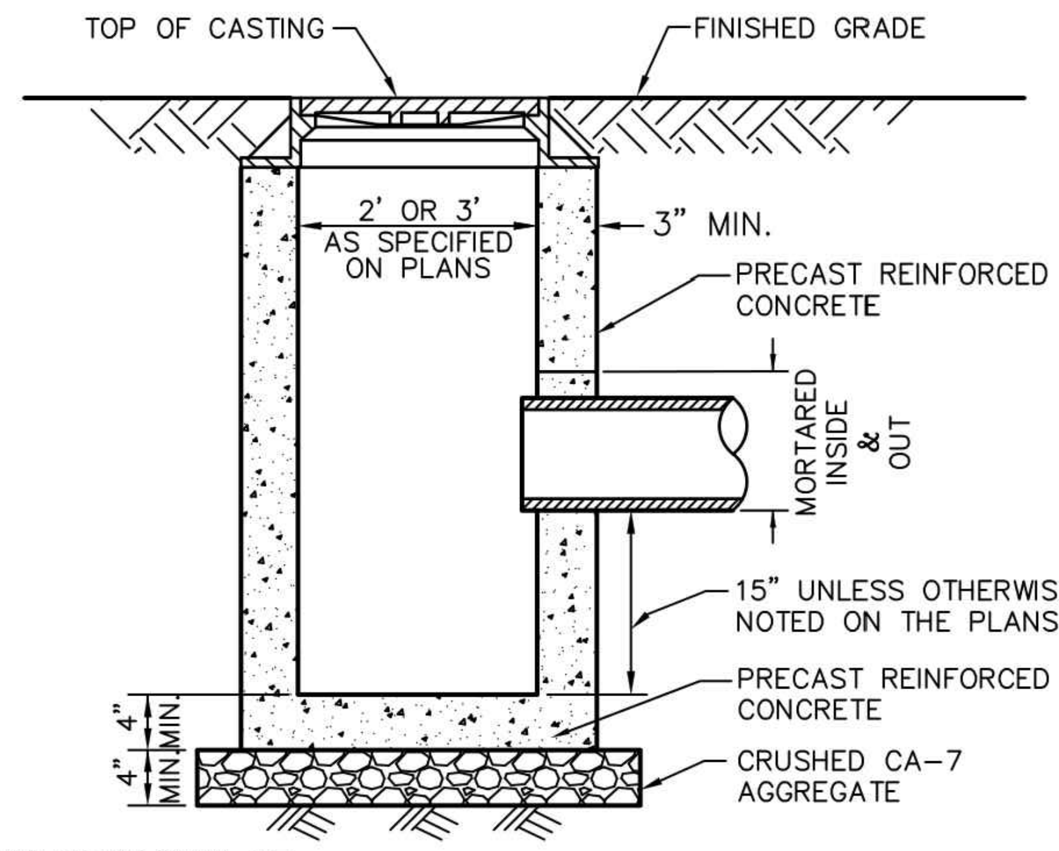

TOP OF CASTING
FINISHED GRADE
2' OR 3' AS SPECIFIED ON PLANS
3" MIN.
PRECAST REINFORCED CONCRETE
MORTARED INSIDE & OUT
15" UNLESS OTHERWISE NOTED ON THE PLANS
PRECAST REINFORCED CONCRETE
4" MIN.
4" MIN.
CRUSHED CA–7 AGGREGATE

NOTES:

1. FRAME AND GRATE SHALL BE:
   - A. IN PAVED AREAS:
     - I. M–3.12 CURB & GUTTER (UNDER PONDING OR CONTINUOUS GRADE CONDITIONS): NEENAH R–3501–P, EJIW 7525, OR APPROVED EQUAL.
     - II. B–6.12 CURB AND GUTTER (UNDER PONDING CONDITIONS): NEENAH R–3281–A, EJIW 7210 W/TYPE M2 GRATE AND T1 BACK, OR APPROVED EQUAL.
     - III. B–6.12 CURB AND GUTTER (UNDER CONTINOUS GRADE CONDITIONS): NEENAH R–3281–AL, EJIW 7210 W/TYPE M4 VANE GRATE AND T1 BACK, OR APPROVED EQUAL.
   - B. IN NON–PAVED AREAS: NEENAH R–1713 WITH TYPE D COVER, EJIW 1050 WITH TYPE M1 RADIAL FLAT GRATE, OR APPROVED EQUAL.
2. ROADSIDE DITCH DRAINAGE STRUCTURES SHALL BE EVALUATED ON A CASE–BY–CASE BASIS.
3. A MAXIMUM OF 8" OF ADJUSTING RINGS SHALL BE USED FOR ALL CATCH BASINS. NO MORE THAN 2 PRECAST ADJUSTING RINGS, TOTALING NO MORE THAN 8" SHALL BE USED. BETWEEN EACH SECTION JOINT, ADJUSTING RING AND FRAME, APPLY A CONTINUOUS LAYER OF NON–HARDENING PREFORMED BITUMINOUS MASTIC MATERIAL.
4. ALL CURB INLET FRAMES SHALL BE SEALED WITH A HYDRAULIC CEMENT FILLET BETWEEN THE FRAME AND TOP ADJUSTING RING OR CONE.
5. ALL CLOSED STRUCTURE LIDS SHALL HAVE "VILLAGE OF SUGAR GROVE" AND "STORM" CAST INTO TOP AND SHALL BE THE CONCEALED PICK HOLE TYPE.

CATCH BASIN - TYPE C

Village of Sugar Grove
10 Municipal Drive
Sugar Grove, Illinois 60554
Phone: (630) 391–7200

SCALE: N.T.S.
DATE: 4/2/24
FOLDER: SG-ST
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No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

Kimley»Horn

570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847–260–7804
WWW.KIMLEY–HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

CONSTRUCTION DETAILS

THE GROVE - AREA 1
(SINGLE FAMILY)
SUGAR GROVE, IL 60554

ORIGINAL ISSUE: 1/31/2025
KHA PROJECT NO. 168740009
SHEET NUMBER
C8.2

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C8.0 CONSTRUCTION DETAILS.dwg C8.2 Jul 01, 2025 9:41am by: Joe.Hannah
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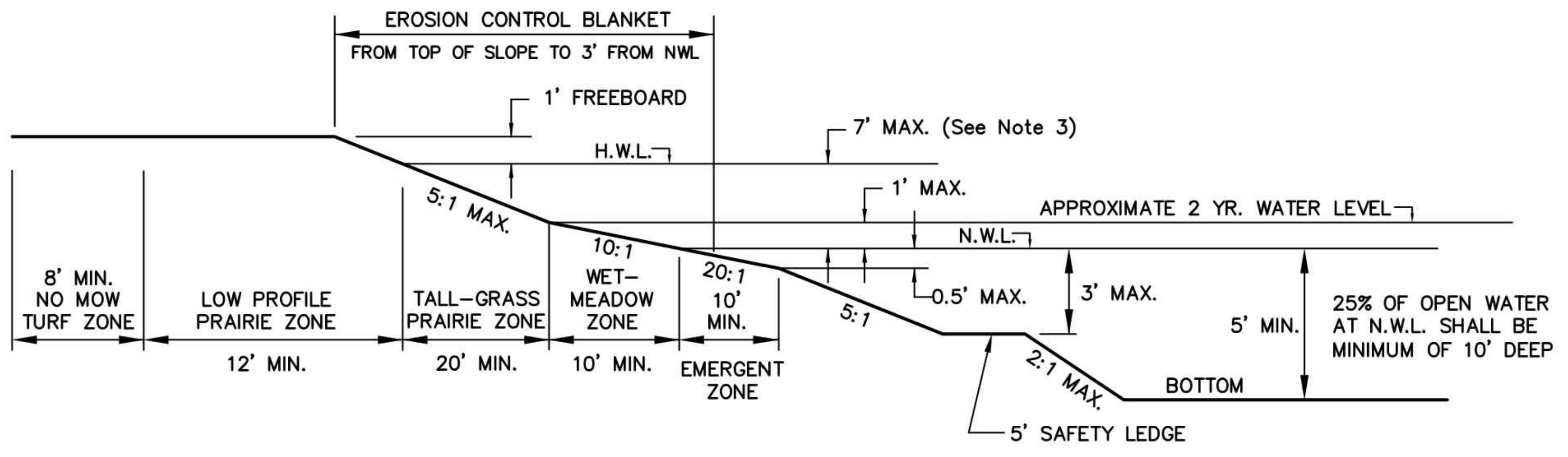
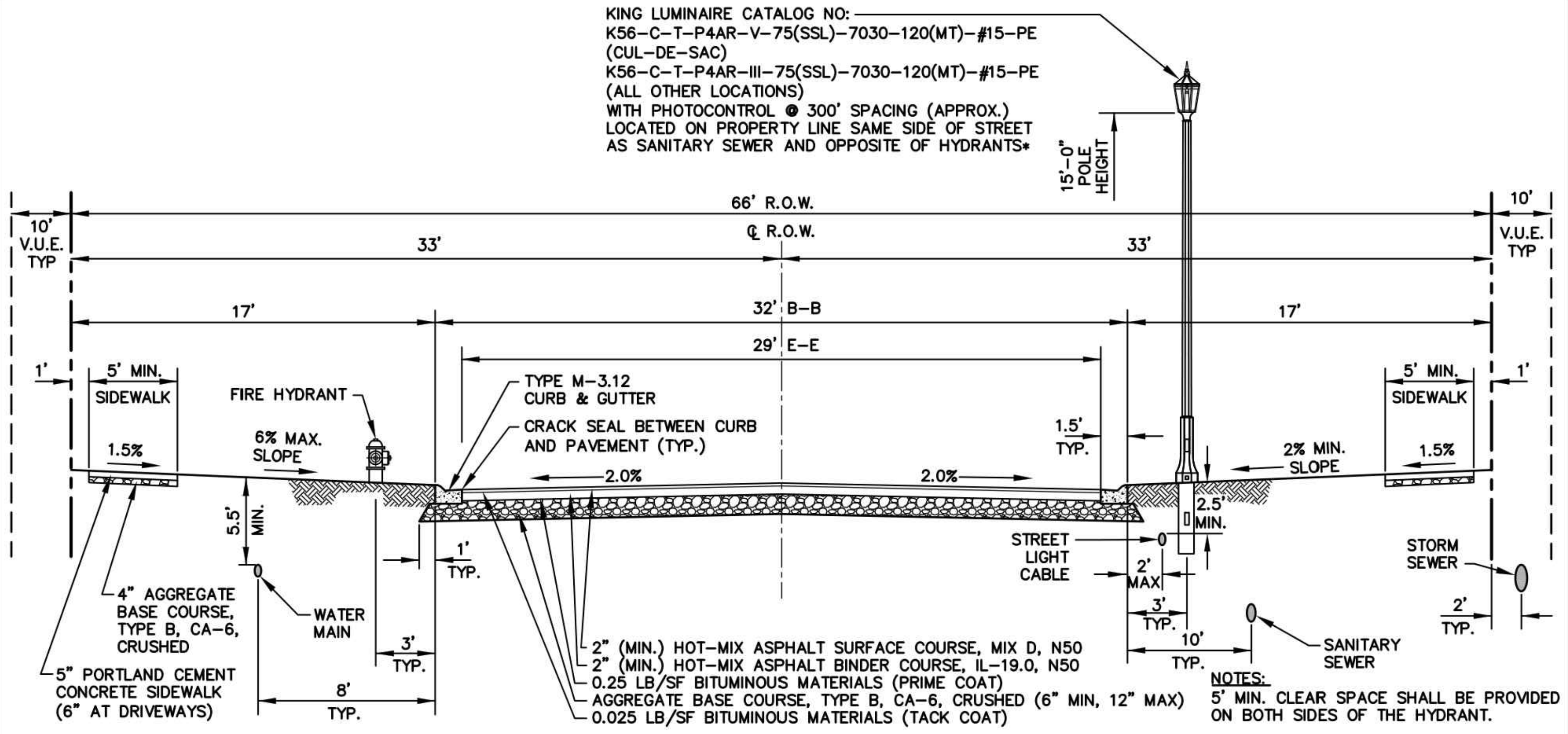
NOTES:

1. ENTIRE BASIN FROM THE EMERGENT ZONE TO THE LOT LINE WILL CONTAIN A MINIMUM OF 12" ORGANIC RICH TOPSOIL.
2. BOTTOM OF WETLAND BASINS SHALL BE ESTABLISHED 6" BELOW NORMAL WATER LEVEL.
3. MAXIMUM BOUNCE SHALL BE SUBJECT TO DRAWDOWN TIME AND ITS EFFECT ON BASIN VEGETATION.
4. ALL WET BASINS SHALL INCORPORATE WIND-POWERED AERATION SYSTEMS TO OXYGENATE THE NORMAL WATER POOL.


EROSION CONTROL BLANKET
FROM TOP OF SLOPE TO 3' FROM NWL
1' FREEBOARD
H.W.L.
7' MAX. (See Note 3)
1' MAX.
APPROXIMATE 2 YR. WATER LEVEL
N.W.L.
5:1 MAX.
10:1
20:1
5:1
2:1 MAX.
0.5' MAX.
3' MAX.
5' MIN.
25% OF OPEN WATER AT N.W.L. SHALL BE MINIMUM OF 10' DEEP
8' MIN. NO MOW TURF ZONE
LOW PROFILE PRAIRIE ZONE
TALL-GRASS PRAIRIE ZONE
WET-MEADOW ZONE
10' MIN.
12' MIN.
20' MIN.
10' MIN.
EMERGENT ZONE
BOTTOM
5' SAFETY LEDGE

NATURALIZED STORMWATER MANAGEMENT FACILITY CROSS-SECTION

Village of Sugar Grove 10 Municipal Drive Sugar Grove, Illinois 60554 Phone: (630) 391-7200	SCALE: N.T.S. DATE: 4/2/24	FOLDER: SG-ST	DRAWING NUMBER: 14	DRAWN BY: KKP REVISED:


KING LUMINAIRE CATALOG NO:
K56-C-T-P4AR-V-75(SSL)-7030-120(MT)-#15-PE
(CUL-DE-SAC)
K56-C-T-P4AR-III-75(SSL)-7030-120(MT)-#15-PE
(ALL OTHER LOCATIONS)
WITH PHOTOCONTROL @ 300' SPACING (APPROX.)
LOCATED ON PROPERTY LINE SAME SIDE OF STREET
AS SANITARY SEWER AND OPPOSITE OF HYDRANTS*
15'-0" POLE HEIGHT
66' R.O.W.
℄ R.O.W.
10' V.U.E. TYP
33'
33'
10' V.U.E. TYP
17'
32' B-B
17'
29' E-E
1'
5' MIN. SIDEWALK
FIRE HYDRANT
TYPE M-3.12 CURB & GUTTER
CRACK SEAL BETWEEN CURB AND PAVEMENT (TYP.)
1.5' TYP.
5' MIN. SIDEWALK
1'
1.5%
6% MAX. SLOPE
2.0%
2.0%
2% MIN. SLOPE
1.5%
5.5' MIN.
2.5' MIN.
STREET LIGHT CABLE
STORM SEWER
1' TYP.
2' MAX
4" AGGREGATE BASE COURSE, TYPE B, CA-6, CRUSHED
WATER MAIN
3' TYP.
3' TYP.
2' TYP.
10' TYP.
SANITARY SEWER
5" PORTLAND CEMENT CONCRETE SIDEWALK (6" AT DRIVEWAYS)
8' TYP.
2" (MIN.) HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50
2" (MIN.) HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50
0.25 LB/SF BITUMINOUS MATERIALS (PRIME COAT)
AGGREGATE BASE COURSE, TYPE B, CA-6, CRUSHED (6" MIN, 12" MAX)
0.025 LB/SF BITUMINOUS MATERIALS (TACK COAT)

MINIMUM STRUCTURAL NUMBER = 3.3

IBR SHALL NOT BE < 3.0

NOTES:

5' MIN. CLEAR SPACE SHALL BE PROVIDED ON BOTH SIDES OF THE HYDRANT.

STREET LIGHTS AND FIRE HYDRANTS SHALL BE PLACED BY PROPERTY LOT LINE.

FIRE HYDRANTS AND STREET LIGHTS SHALL BE LOCATED OPPOSITE EACH OTHER.

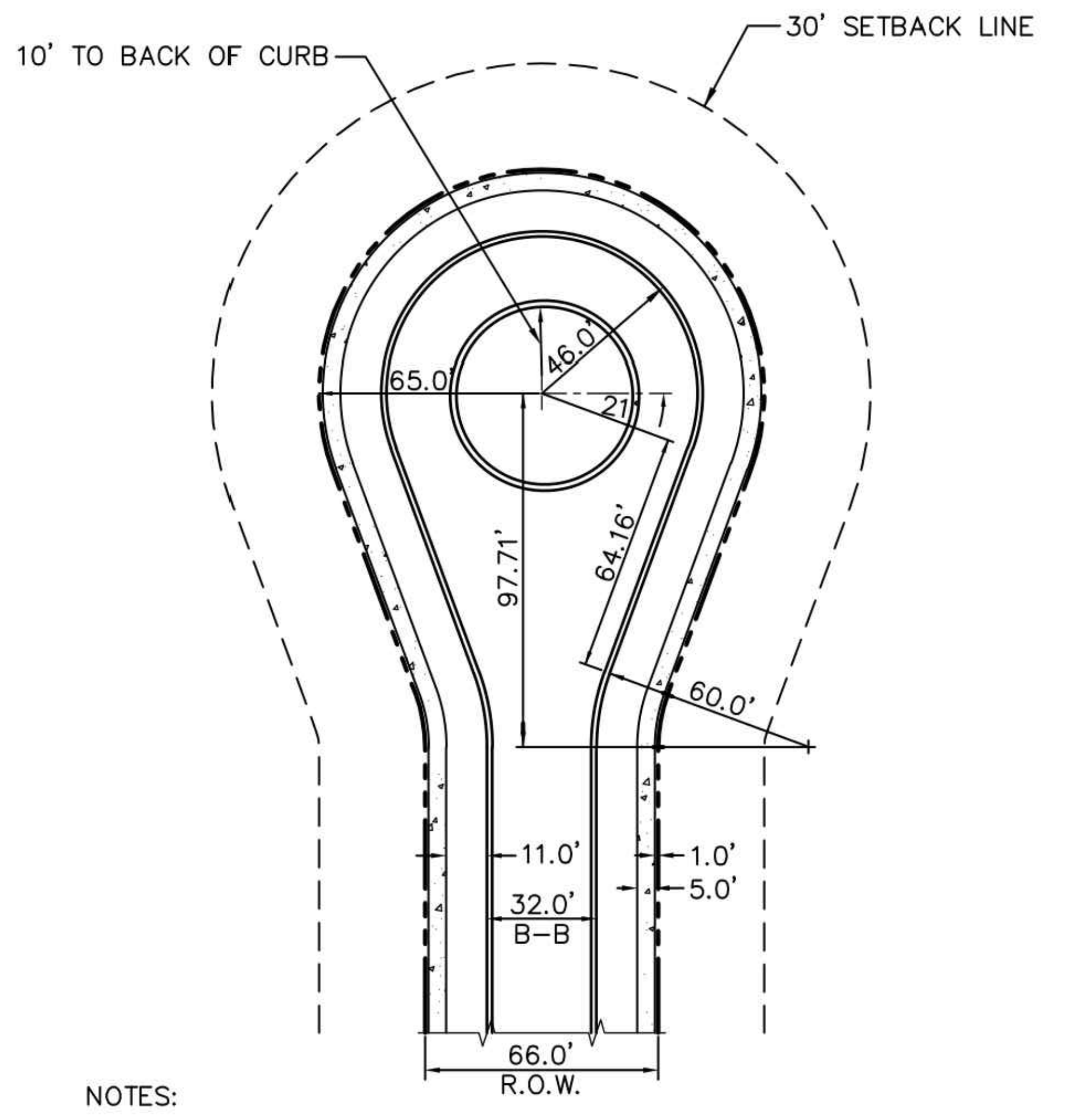
*STREET LIGHT ALTERNATIVE (ONLY IF APPROVED IN WRITING BY VILLAGE STAFF) (SEE DETAIL SG-EL-03):
POLE HEIGHT = 19'-7"
LUMINAIRE IS "AMERICAN ELECTRIC LIGHTING" MODEL
150W ATBS-P30-MVOLT-R2-3K-P7-PCL1

NOTES: UTILITY STRUCTURES ARE NOT PERMITTED IN PAVED AREAS.

STREET LIGHT SPACING SHALL BE APPROX. 300' UNLESS A PHOTOMETRIC ANALYSIS IS REQUIRED BY VILLAGE AND THEN SPACING SHALL BE AMENDED ACCORDINGLY.

TYPICAL STREET SECTION - LOCAL (66' ROW)

Village of Sugar Grove 160 Municipal Drive Sugar Grove, Illinois 60554 Phone: 630-391-7230	SCALE: N.T.S. DATE: 4/2/24	FOLDER: SG-RD	DRAWING NUMBER: 01	DRAWN BY: KKP REVISED:


10' TO BACK OF CURB
30' SETBACK LINE
65.0'
46.0'
21'
97.71'
64.16'
60.0'
11.0'
1.0'
5.0'
32.0' B-B
66.0' R.O.W.

NOTES:

1. MAINTENANCE RESPONSIBILITY FOR THE LANDSCAPED ISLAND SHALL BE ASSIGNED TO THE HOMEOWNER'S ASSOCIATION. ISLAND SHALL BE AN OUTLOT DEDICATED TO H.O.A.
2. LANDSCAPING FOR THE ISLAND SHALL BE PER THE ORDINANCE AND APPROVED BY THE VILLAGE.
3. NO UTILITIES IN ISLAND.
4. ISLANDS ARE PERMITTED AT THE DISCRETION OF THE VILLAGE BOARD.

CONCENTRIC CUL-DE-SAC

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2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

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570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847-260-7804
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

CONSTRUCTION DETAILS

THE GROVE - AREA 1 (SINGLE FAMILY)

SUGAR GROVE, IL 60554

ORIGINAL ISSUE: 1/31/2025

KHA PROJECT NO. 168740009

SHEET NUMBER

C8.3

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C8.0 CONSTRUCTION DETAILS.dwg C8.3 Jul 01, 2025 9:41am by: Joe.Hannah
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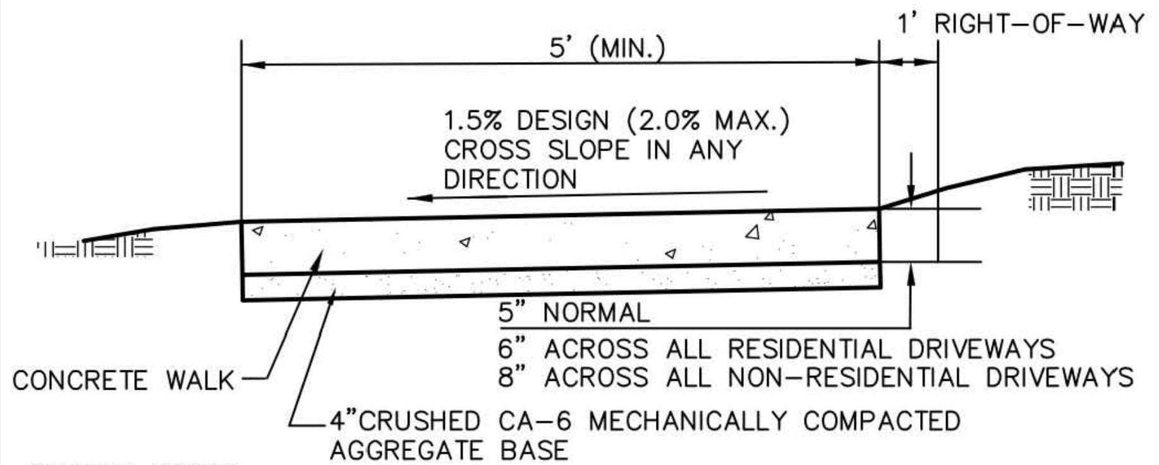
1' RIGHT–OF–WAY
5' (MIN.)
1.5% DESIGN (2.0% MAX.) CROSS SLOPE IN ANY DIRECTION
5" NORMAL
6" ACROSS ALL RESIDENTIAL DRIVEWAYS
8" ACROSS ALL NON–RESIDENTIAL DRIVEWAYS
CONCRETE WALK
4"CRUSHED CA–6 MECHANICALLY COMPACTED AGGREGATE BASE

GENERAL NOTES:

1. REMOVE ALL TOPSOIL. PLACE CONCRETE ON 4" MIN. COMPACTED CA–6 STONE.
2. A CONTROL (CONTRACTION) JOINT SHALL BE TOOLED AT 5' INTERVALS AT THE TIME OF PLACEMENT. EXPANSION JOINTS WITH 1/2" BITUMINOUS FILLER MATERIAL SHALL BE SPACED AT INTERVALS SPECIFIED BELOW, AND AT 2.5' EITHER SIDE OF UTILITY STRUCTURES.
3. SIDEWALK SHALL BE INSTALLED THROUGH ALL RESIDENTIAL AND NON–RESIDENTIAL ACCESS DRIVES WITHIN THE VILLAGE'S RIGHT OF WAY. SIDEWALK SHALL BE 6" THICK MIN. AT RESIDENTIAL DRIVEWAY CROSSINGS AND AT SIDEWALK RAMPS, 8" THICK MIN. AT NON–RESIDENTIAL DRIVEWAYS, AND 5" MIN. OTHER AREAS.
4. CONCRETE SHALL BE CLASS SI.
5. PLACE 3/4" PREFORMED BIT. FILLER MATERIAL AT THE FULL DEPTH OF CONCRETE AT EDGES ABUTTING SIDEWALKS, CONCRETE DRIVES OR PRIVATE SIDEWALKS.
6. MAX. LONGITUDINAL SLOPE IS 5.0%.
7. THE SURFACE SHALL HAVE A LIGHT BROOM FINISH.
8. ALL SIDEWALK SHALL BE CURED TO THE REQUIREMENTS OF ARTICLE 1020.13 OF THE STATE OF ILLINOIS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTIONS, LATEST EDITION. MEMBRANE CURING SHALL BE W.R. MEADOWS CS 309 WITH WHITE FUGITIVE DYE AS PER TYPE II MEMBRANE CURING OR APPROVED EQUAL.
9. QUALITY CONTROL TESTING SHALL BE THE RESPONSIBILITY OF THE DEVELOPER/CONTRACTOR. QUALITY ASSURANCE TESTING SHALL BE THE RESPONSIBILITY OF THE VILLAGE. THE MIX SHALL MEET IDOT SPECIFICATIONS.
10. THE VILLAGE ENGINEER SHALL BE CONTACTED 48 HOURS PRIOR TO THE POUR FOR A REVIEW OF THE BASE, REINFORCING AND FORMWORK.
11. CONCRETE DELIVERY TICKETS FROM THE CONCRETE SUPPLIER SHALL BE PROVIDED TO THE VILLAGE ENGINEER INDICATING A MINIMUM OF SIX (6) BAG MIX, CLASS "SI" CONCRETE, 5% TO 8% AIR ENTRAINMENT, AND THE LOCATION, AND DATE OF THE POUR. A COPY OF THE DATED BILLING FOR THE CURING COMPOUND SHALL ALSO BE REQUIRED FOR APPROVAL.
12. 2–20' – NO. 4 REBAR IS REQUIRED AT ALL TRENCH CROSSINGS.
13. UTILITY STRUCTURES ARE NOT PERMITTED IN THE SIDEWALK.
14. PROVIDE RAMP AND DETECTABLE WARNING AT ALL STREET CROSSINGS IN ACCORDANCE WITH THE VILLAGE'S SIDEWALK AND BIKE PATH RAMP DETAIL AND ADA REQUIREMENTS. IF A CONFLICT EXISTS BETWEEN THE DETAIL AND ADA REQUIREMENTS, THE MORE STRINGENT REQUIREMENT WILL APPLY.
15. SIDEWALK SHALL BE POURED IN A MONOLITHIC POUR WHEN POSSIBLE.
16. ALL SIDEWALKS SHALL BE PROTECTED PER IDOT ARTICLE 1020.13 WHEN WEATHER CONDITIONS DICTATE.
17. ALL WEATHER AND CONCRETE CONDITIONS SHALL MEET IDOT REQUIREMENTS.

TYPICAL EXPANSION JOINT SPACING CURB AND SIDEWALK

POUR TEMP. (DEG. F°)	EXPANSION JOINT (SPACING FT.)
40 MIN.	70'
45	75'
50	80'
55	90'
60	95'
65	105'
70	115'
75	125'
80	145'
85	160'
90 MAX.	190'

TYPICAL SIDEWALK SECTION

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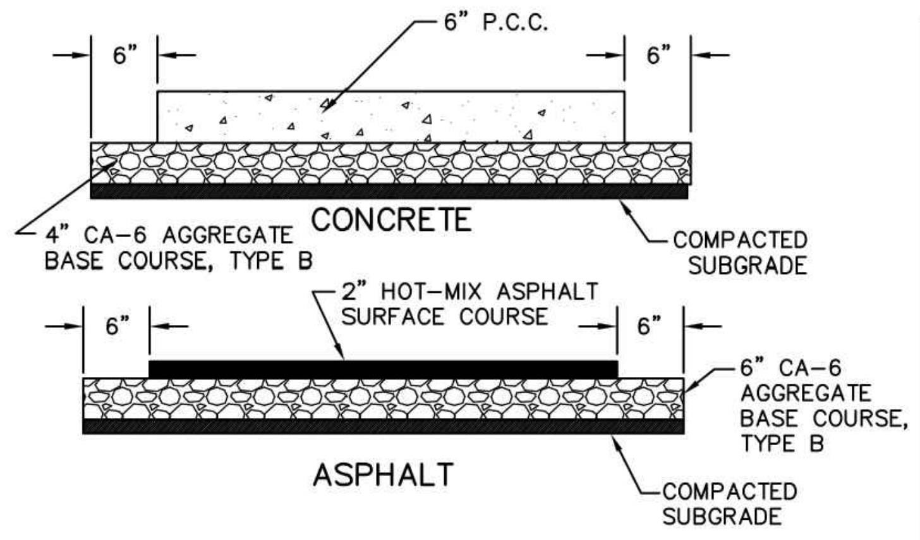
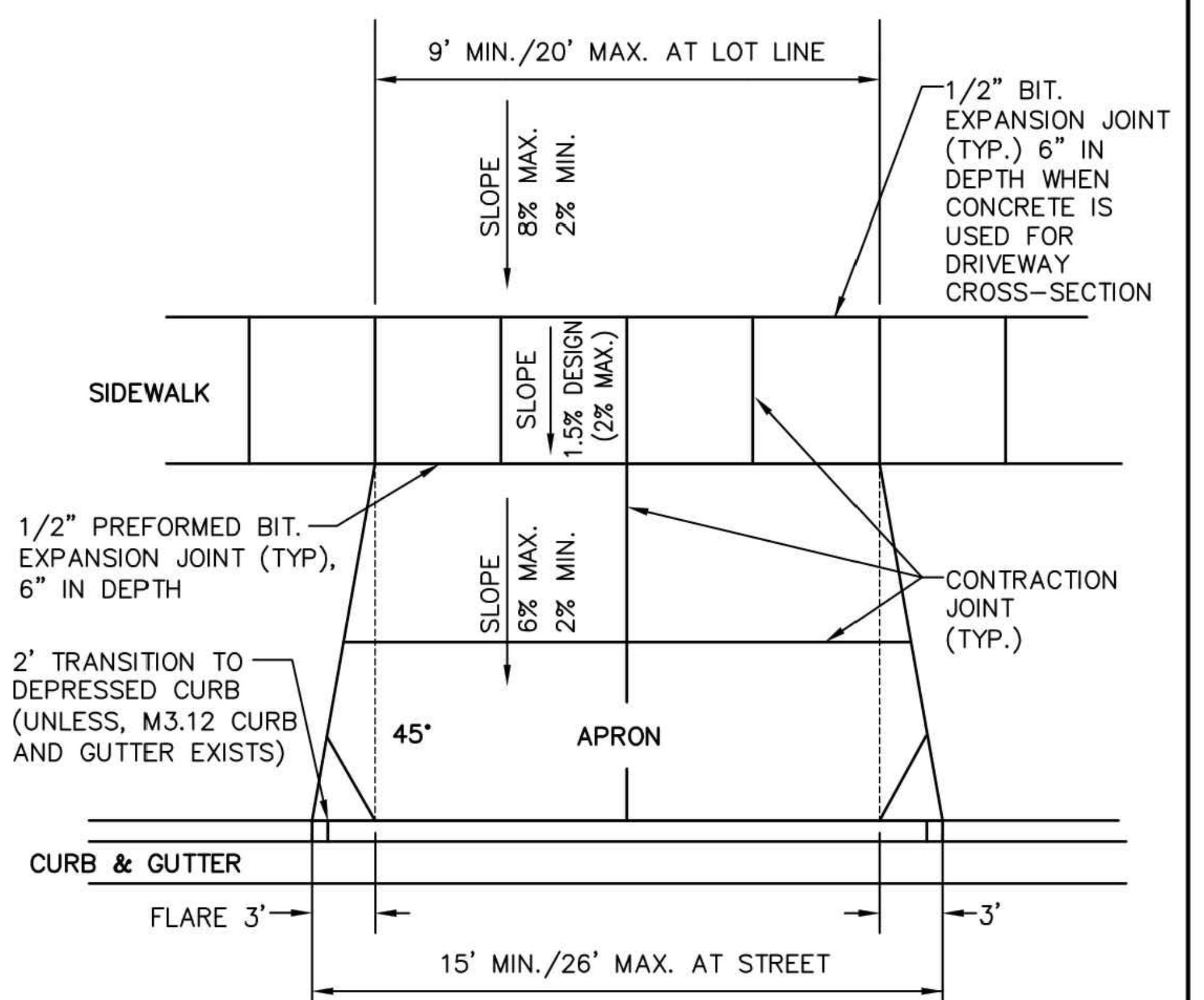
TYPICAL PAVEMENT SECTIONS


6" P.C.C.
6"
6"
4" CA–6 AGGREGATE BASE COURSE, TYPE B
CONCRETE
COMPACTED SUBGRADE
2" HOT–MIX ASPHALT SURFACE COURSE
6"
6"
6" CA–6 AGGREGATE BASE COURSE, TYPE B
ASPHALT
COMPACTED SUBGRADE

NOTES:

1. CONCRETE SHALL CONFORM TO I.D.O.T. STD. SPEC. FOR ROAD AND BRIDGE CONSTRUCTION SEC. 420 AND SHALL BE CLASS "SI" CONCRETE, 6 BAG, WITH 5% TO 8% AIR–ENTRAINMENT.
2. HOT–MIX ASPHALT SURFACE COURSE SHALL BE MIX C, N50.
3. AGGREGATE BASE COURSE SHALL BE COMPACTED CA–6.
4. 6" CONTINUOUS PRE MOLDED EXPANSION JOINTS SHALL BE PROVIDED AGAINST SIDEWALK AND CURB & GUTTER. (CONCRETE DRIVE ONLY)
5. CONCRETE DRIVEWAYS MAY BE REINFORCED WITH WELDED WIRE FABRIC.
6. NO UTILITY STRUCTURES SHALL BE INSTALLED IN PAVED AREAS.
7. 20' – NO. 4 REBAR SHALL BE INSTALLED AT TRENCH CROSSINGS IN CONCRETE DRIVEWAYS,
8. IF CONCRETE, THE DRIVEWAY SHALL BE CURED AS PER THE REQUIREMENTS FOR SIDEWALKS.
9. ALL CONCRETE SHALL BE PROTECTED PER IDOT ARTICLE 1020.13 WHEN THE WEATHER DICTATES IT.
10. ALL CONCRETE SLABS SHALL BE SYMMETRICALLY JOINTED.
11. CURB CUTS / DEPRESSIONS ARE PERMITTED AT DRIVEWAYS ON A CASE BY CASE BASIS AS APPROVED BY VILLAGE ENGINEER.
12. IN NO CASE SHALL THE ALGEBRAIC DIFFERENCE OF THE DRIVE GRADE AND STREET GRADE EXCEED 8%.

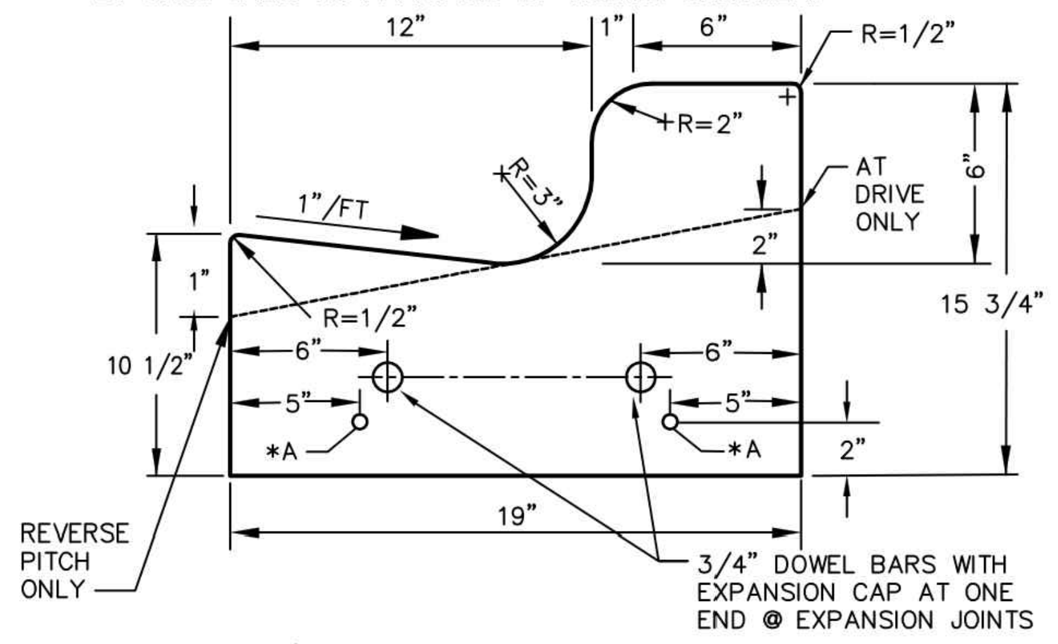
TYPICAL DRIVEWAY APRON


9' MIN./20' MAX. AT LOT LINE
SLOPE 8% MAX. 2% MIN.
1/2" BIT. EXPANSION JOINT (TYP.) 6" IN DEPTH WHEN CONCRETE IS USED FOR DRIVEWAY CROSS–SECTION
SIDEWALK
SLOPE 1.5% DESIGN (2% MAX.)
1/2" PREFORMED BIT. EXPANSION JOINT (TYP), 6" IN DEPTH
SLOPE 6% MAX. 2% MIN.
CONTRACTION JOINT (TYP.)
2' TRANSITION TO DEPRESSED CURB (UNLESS, M3.12 CURB AND GUTTER EXISTS)
45°
APRON
CURB & GUTTER
FLARE 3'
3'
15' MIN./26' MAX. AT STREET

RESIDENTIAL DRIVEWAY APRON DETAIL

Village of Sugar Grove 160 Municipal Drive Sugar Grove, Illinois 60554 Phone: 630–391–7230	SCALE: N.T.S. DATE: 4/2/24	FOLDER: SG-RD	DRAWING NUMBER: 11	DRAWN BY: KKP REVISED:

1. ALL CONCRETE FOR CURB AND GUTTER SHALL CONFORM TO I.D.O.T. STD. SPEC. FOR ROAD & BRIDGE CONST. SEC. 606 AND BE CLASS "SI" CONCRETE SIX BAG MIX, WITH 5% TO 8% AIR ENTRAINMENT.
2. CONTRACTION JOINTS SHALL BE PLACED AT TEN (10) FOOT (MIN.) O.C. PER ARTICLE 420.05 AND SHALL BE SAW CUT TO A MINIMUM DEPTH OF TWO (2) INCHES FROM FRONT TO BACK WITHIN TWENTY–FOUR (24) HOURS OF CONCRETE PLACEMENT AND SHALL BE SEALED WITH POLYSULFIDE JOINT SEALANT PER ARTICLE 420.12.
3. 2– 3/4" X 18" SMOOTH DOWEL BARS WITH CAPS AND WITH ONE END GREASED SHALL BE USED AT ALL EXPANSION JOINTS. 3/4" PREMOLDED EXPANSION JOINTS TO BE PLACED AT ALL P.C.'S, P.T.'S AND AS INDICATED BELOW.
4. EXPANSION JOINTS, AS DETAILED HEREIN, SHALL BE CONSTRUCTED AT A MINIMUM SPACING AS INDICATED BELOW.
5. ALL CURBS SHALL BE CURED TO THE REQUIREMENTS OF ARTICLE 1020.13 OF THE STATE OF ILLINOIS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. MEMBRANE CURING SHALL BE W.R. MEADOWS CS 309 WITH WHITE FUGITIVE DYE AS PER TYPE II MEMBRANE CURING OR APPROVED EQUAL.
6. THE MINIMUM LONGITUDINAL CURB SLOPE SHALL BE 0.5%.
7. CUTS IN THE CURB WILL BE MADE FULL DEPTH WITH FULL EXPANSION JOINTS DRILLED AT EACH END AS SHOWN HEREIN.
8. CURB AND GUTTER SHALL HAVE A LIGHT BROOM FINISH.
9. CURB TO BE PLACED ON A 4" (MINIMUM) CRUSHED CA–6 AGGREGATE BASE THAT EXTENDS BEYOND THE BACK OF CURB BY 1'.
10. THE CURB AND GUTTER SHALL BE DEPRESSED AT ALL SIDEWALK AND MULTI–USE PATH TEES IN COMPLIANCE WITH ILLINOIS ACCESSIBILITY STANDARDS.
11. THE COMPACTED CURB SUBGRADE SHALL BE SHAPED PARALLEL TO CURB FLOW LINE AND POSITIVELY DRAINED TO THE INLETS AND CATCH BASINS.
12. THE MINIMUM CURB AND GUTTER REPLACEMENT SHALL BE 10 FEET AND SHALL BE NO LESS THAN JOINT TO JOINT EXCEPT WHERE RECOMMENDED BY THE VILLAGE ENGINEER.
13. ALL CURB AND GUTTER SHALL BE PROTECTED PER IDOT ARTICLE 1020.13 WHEN WEATHER CONDITIONS DICTATE.
14. ALL WEATHER AND CONCRETE CONDITIONS SHALL MEET IDOT REQUIREMENTS.
15. ALL WATER AND SANITARY SERVICES SHALL BE STAMPED WITH A "W" OR AN "S" ACCORDINGLY IN THE FACE OF THE CURB HEAD.
16. THE VILLAGE ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY POUR.
17. CURB CUTS/DEPRESSIONS ARE PERMITTED AT DRIVEWAYS ON A CASE BY CASE BASIS AS APPROVED BY VILLAGE ENGINEER.


12"
1"
6"
R=1/2"
R=2"
R=3"
1"/FT
AT DRIVE ONLY
6"
2"
15 3/4"
1"
R=1/2"
10 1/2"
6"
6"
5"
5"
*A
*A
2"
19"
REVERSE PITCH ONLY
3/4" DOWEL BARS WITH EXPANSION CAP AT ONE END @ EXPANSION JOINTS

*A 2–20', NO.4 REBAR AT ALL TRENCH CROSSINGS

TYPICAL EXPANSION JOINT SPACING CURB AND GUTTER

POUR TEMP. (DEG. F°)	EXPANSION JOINT (SPACING FT.)
40 MIN.	70'
45	75'
50	80'
55	90'
60	95'
65	105'
70	115'
75	125'
80	145'
85	160'
90 MAX.	190'

TYPE B-6.12 CONCRETE CURB & GUTTER

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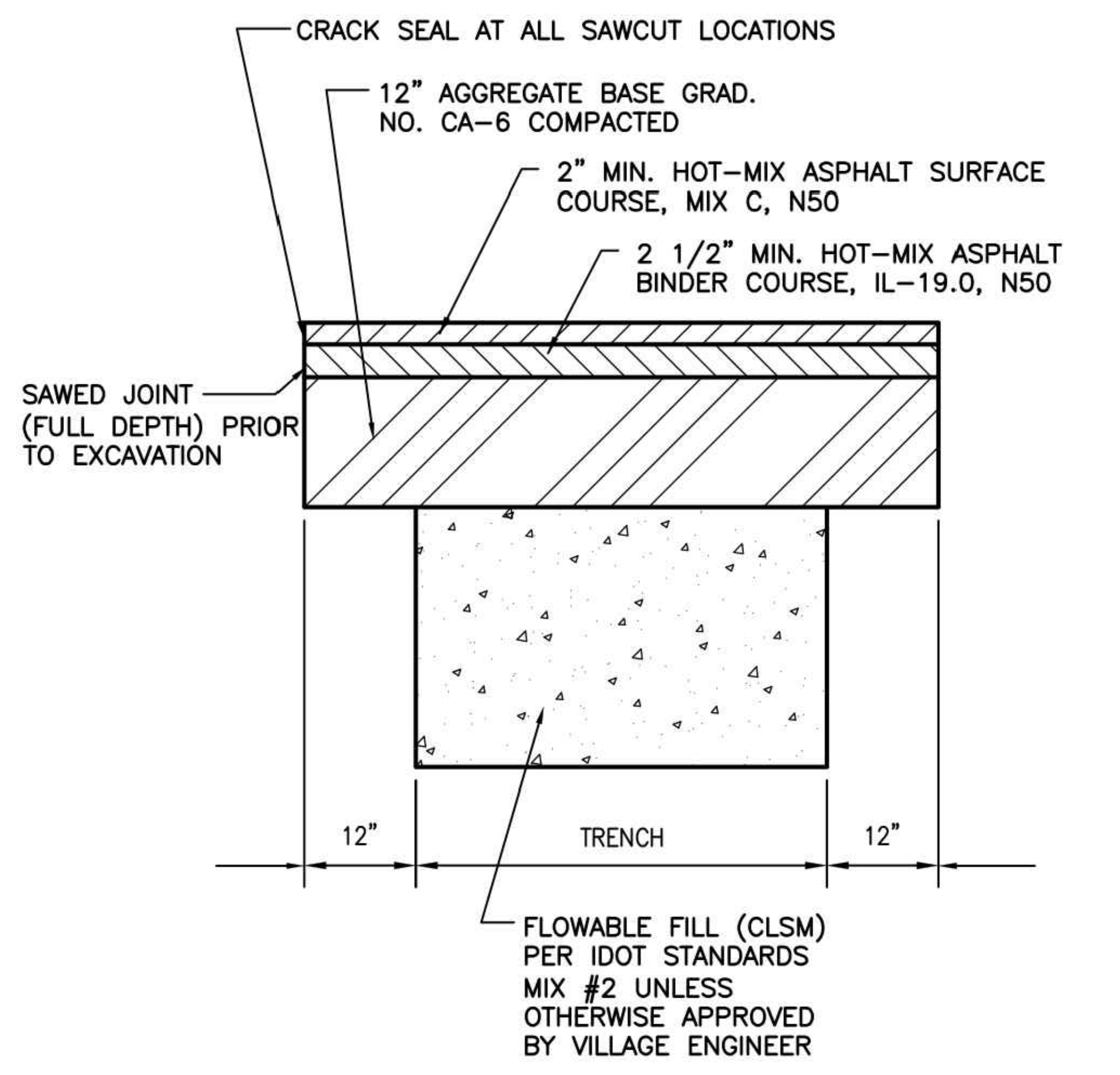
CRACK SEAL AT ALL SAWCUT LOCATIONS
12" AGGREGATE BASE GRAD. NO. CA–6 COMPACTED
2" MIN. HOT–MIX ASPHALT SURFACE COURSE, MIX C, N50
2 1/2" MIN. HOT–MIX ASPHALT BINDER COURSE, IL–19.0, N50
SAWED JOINT (FULL DEPTH) PRIOR TO EXCAVATION
12"
TRENCH
12"
FLOWABLE FILL (CLSM) PER IDOT STANDARDS MIX #2 UNLESS OTHERWISE APPROVED BY VILLAGE ENGINEER

NOTE:

1. PAVEMENT SHALL BE REMOVED OUTSIDE OF THE TRENCH NEAT LINE ONLY AFTER THE TRENCH HAS BEEN BACKFILLED. THEN THE EXISTING SURFACE SHALL BE SAWED TO PRESERVE A NEAT LINE FOR THE ENTIRE LENGTH OF TRENCH ON EACH SIDE.

2. THE THICKNESS ABOVE REPRESENTED MINIMUM AT THE DIRECTION OF THE VILLAGE ENGINEER, CORE SAMPLES MAY NEED TO BE TAKEN AND THESE MAY BE REQUIRED TO BE INCREASED.

LOCAL ROAD

PAVEMENT REMOVAL AND REPLACEMENT DETAIL

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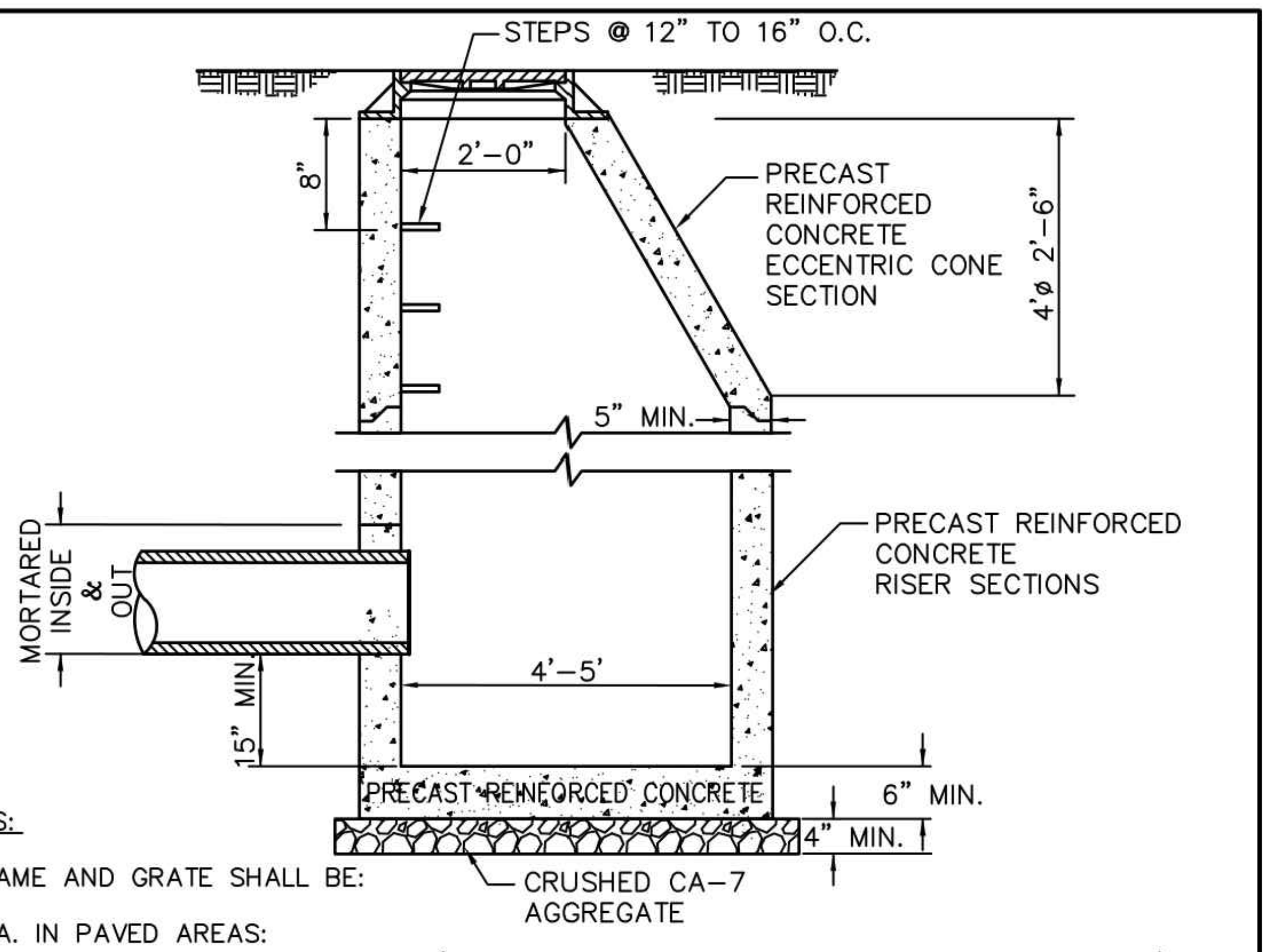
STEPS @ 12" TO 16" O.C.
2'–0"
8"
PRECAST REINFORCED CONCRETE ECCENTRIC CONE SECTION
4'ø 2'–6"
5" MIN.
MORTARED INSIDE & OUT
PRECAST REINFORCED CONCRETE RISER SECTIONS
4'–5'
15" MIN.
PRECAST REINFORCED CONCRETE
6" MIN.
4" MIN.
CRUSHED CA–7 AGGREGATE

NOTES:

1. FRAME AND GRATE SHALL BE:
   - A. IN PAVED AREAS:
     - I. M–3.12 CURB & GUTTER (UNDER PONDING OR CONTINUOUS GRADE CONDITIONS): NEENAH R–3501–P, EJIW 7525, OR APPROVED EQUAL.
     - II. B–6.12 CURB AND GUTTER (UNDER PONDING CONDITIONS): NEENAH R–3281–A, EJIW 7210 W/TYPE M2 GRATE AND T1 BACK, OR APPROVED EQUAL.
     - III. B–6.12 CURB AND GUTTER (UNDER CONTINOUS GRADE CONDITIONS): NEENAH R–3281–AL, EJIW 7210 W/TYPE M4 VANE GRATE AND T1 BACK, OR APPROVED EQUAL.
   - B. IN NON–PAVED AREAS: NEENAH R–1713 WITH TYPE D COVER, EJIW 1050 WITH TYPE M1 RADIAL FLAT GRATE, OR APPROVED EQUAL.
2. ROADSIDE DITCH DRAINAGE STRUCTURES SHALL BE EVALUATED ON A CASE–BY–CASE BASIS.
3. A MAXIMUM OF 8" OF ADJUSTING RINGS SHALL BE USED FOR ALL CATCH BASINS. NO MORE THAN 2 PRECAST ADJUSTING RINGS, TOTALING NO MORE THAN 8" SHALL BE USED. BETWEEN EACH SECTION JOINT, ADJUSTING RING AND FRAME, APPLY A CONTINUOUS LAYER OF NON–HARDENING PREFORMED BITUMINOUS MASTIC MATERIAL.
4. ALL CURB INLET FRAMES SHALL BE SEALED WITH A HYDRAULIC CEMENT FILLET BETWEEN THE FRAME AND TOP ADJUSTING RING OR CONE.
5. ALL CLOSED STRUCTURE LIDS SHALL HAVE "VILLAGE OF SUGAR GROVE" AND "STORM" CAST INTO TOP AND SHALL BE THE CONCEALED PICK HOLE TYPE.

CATCH BASIN - TYPE A

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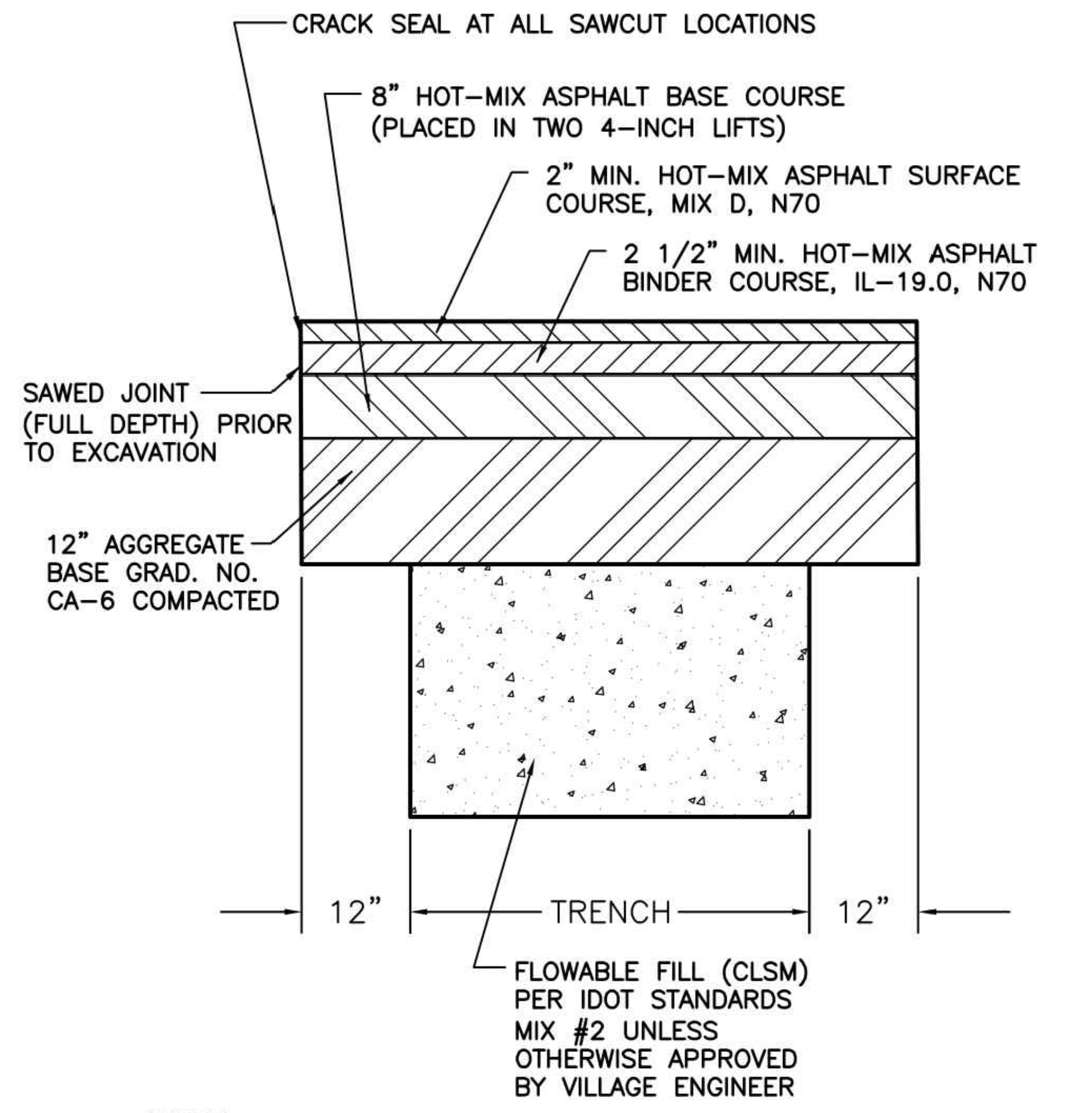
CRACK SEAL AT ALL SAWCUT LOCATIONS
8" HOT–MIX ASPHALT BASE COURSE (PLACED IN TWO 4–INCH LIFTS)
2" MIN. HOT–MIX ASPHALT SURFACE COURSE, MIX D, N70
2 1/2" MIN. HOT–MIX ASPHALT BINDER COURSE, IL–19.0, N70
SAWED JOINT (FULL DEPTH) PRIOR TO EXCAVATION
12" AGGREGATE BASE GRAD. NO. CA–6 COMPACTED
12"
TRENCH
12"
FLOWABLE FILL (CLSM) PER IDOT STANDARDS MIX #2 UNLESS OTHERWISE APPROVED BY VILLAGE ENGINEER

NOTE:

1. PAVEMENT SHALL BE REMOVED OUTSIDE OF THE TRENCH NEAT LINE ONLY AFTER THE TRENCH HAS BEEN BACKFILLED. THEN THE EXISTING SURFACE SHALL BE SAWED TO PRESERVE A NEAT LINE FOR THE ENTIRE LENGTH OF TRENCH ON EACH SIDE.

2. THE THICKNESS ABOVE REPRESENTED MINIMUM AT THE DIRECTION OF THE VILLAGE ENGINEER, CORE SAMPLES MAY NEED TO BE TAKEN AND THESE MAY BE REQUIRED TO BE INCREASED.

MAJOR ROAD

PAVEMENT REMOVAL AND REPLACEMENT DETAIL

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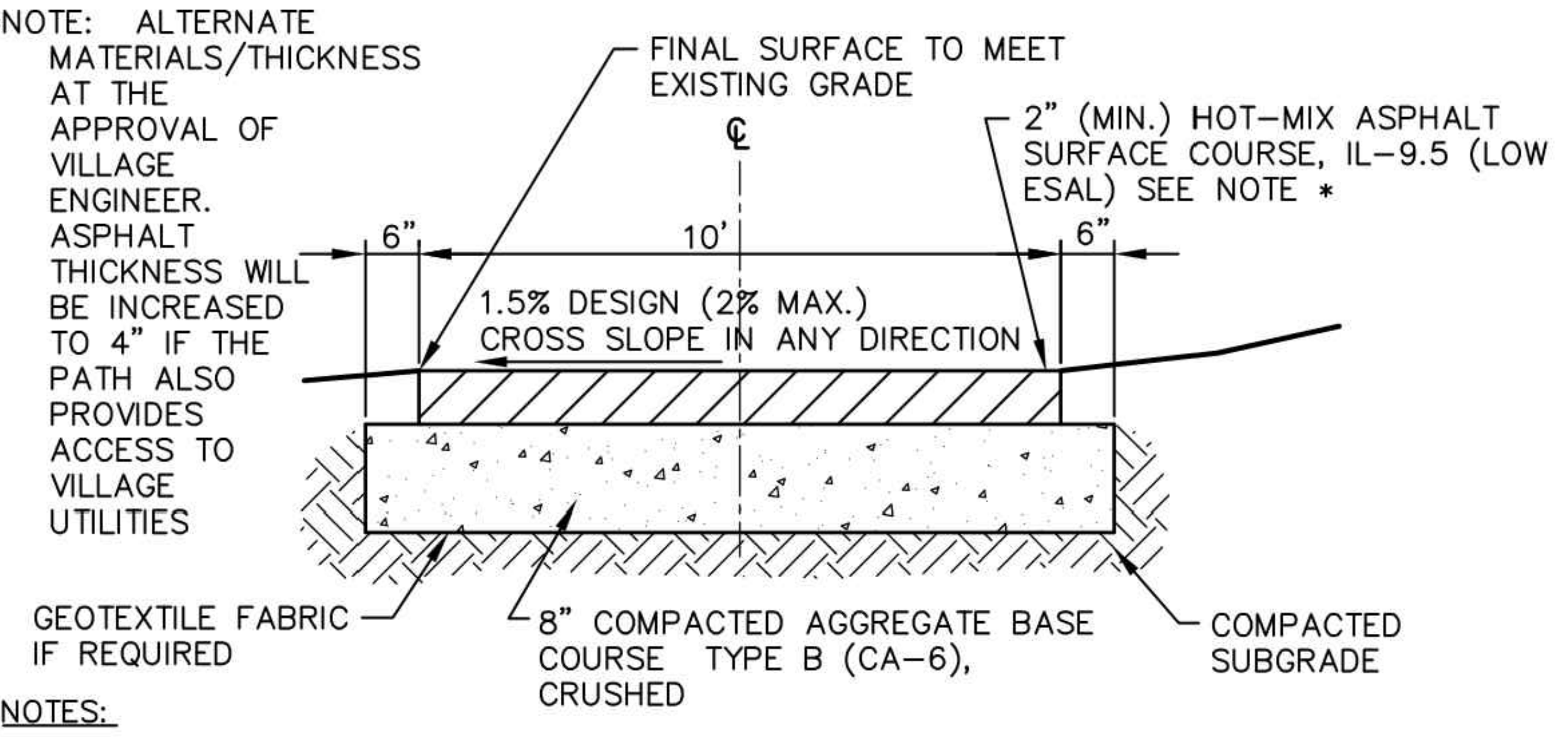
*NOTE: ALTERNATE MATERIALS/THICKNESS AT THE APPROVAL OF VILLAGE ENGINEER. ASPHALT THICKNESS WILL BE INCREASED TO 4" IF THE PATH ALSO PROVIDES ACCESS TO VILLAGE UTILITIES


FINAL SURFACE TO MEET EXISTING GRADE
℄
2" (MIN.) HOT–MIX ASPHALT SURFACE COURSE, IL–9.5 (LOW ESAL) SEE NOTE *
6"
10'
6"
1.5% DESIGN (2% MAX.) CROSS SLOPE IN ANY DIRECTION
GEOTEXTILE FABRIC IF REQUIRED
8" COMPACTED AGGREGATE BASE COURSE TYPE B (CA–6), CRUSHED
COMPACTED SUBGRADE

NOTES:

1. THE PATH CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH IDOT'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION."
2. PROVIDE RAMP AND DETECTABLE WARNING AT ALL STREET CROSSINGS IN ACCORDANCE WITH THE VILLAGE'S SIDEWALK AND BIKE PATH RAMP DETAIL AND ADA REQUIREMENTS. IF A CONFLICT EXISTS BETWEEN THE DETAIL AND ADA REQUIREMENTS, THE MORE STRINGENT REQUIREMENT WILL APPLY. THIS WILL REQUIRE A MINIMUM 5 FOOT LENGTH OF THE MULTI–USE PATH TO BE CONCRETE AT THE RAMP TO ALLOW FOR THE PLACEMENT OF THE RED PANELS. THE CONCRETE AT THIS LOCATION SHALL BE 10 FOOT WIDE AND MEET THE SIDEWALK DETAIL REQUIREMENTS.
3. NO UTILITY STRUCTURES SHALL BE ALLOWED IN THE MULTI–USE PATH.
4. PROOF ROLLS ARE REQUIRED OF THE SUB–GRADE AND AGGREGATE BASE. THE CONTRACTOR SHALL PROVIDE THE LOADED TRUCK AND DRIVER FOR THE PROOF ROLLS. THE VILLAGE ENGINEER SHALL WITNESS ALL PROOF ROLLS. THE CONTRACTOR SHALL PROVIDE A COPY OF THE LOAD TICKET TO THE VILLAGE ENGINEER. THE VILLAGE ENGINEER DETERMINES IF THE PROOF ROLL PASSES OR FAILS. THE CONTRACTOR DETERMINES CORRECTIVE MEASURES AND IMPLEMENTS THEM. IF REQUIRED BY VILLAGE ENGINEER, SUBSEQUENT ADDITIONAL PROOF ROLLS WILL BE COMPLETED BY THE CONTRACTOR AND WITNESSED BY THE VILLAGE ENGINEER, BUT AT NO ADDITIONAL EXPENSE TO THE VILLAGE.
5. THE VILLAGE ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY PROOF ROLL OR PAVING.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING QUALITY CONTROL TESTING. A TESTER SHALL TAKE SAMPLES AT THE PLANT PRIOR TO PAVING AND THEN BE ON SITE AT THE START OF THE PAVING. THE VILLAGE RESERVES THE RIGHT TO PERFORM QUALITY ASSURANCE TESTING.
7. TWO FOOT (2') AGGREGATE SHOULDER MAY BE REQUIRED.

TYPICAL MULTI-USE PATH SECTION

Village of Sugar Grove 160 Municipal Drive Sugar Grove, Illinois 60554 Phone: 630–391–7230	SCALE: N.T.S. DATE: 4/2/24	FOLDER: SG-RD	DRAWING NUMBER: 12	DRAWN BY: KKP REVISED:

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2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

Kimley»Horn

570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847–260–7804
WWW.KIMLEY–HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

CONSTRUCTION DETAILS

THE GROVE - AREA 1
(SINGLE FAMILY)
SUGAR GROVE, IL 60554

ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009
SHEET NUMBER

C8.4

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C8.0 CONSTRUCTION DETAILS.dwg C8.4 Jul 01, 2025 9:41am by: Joe.Hannah
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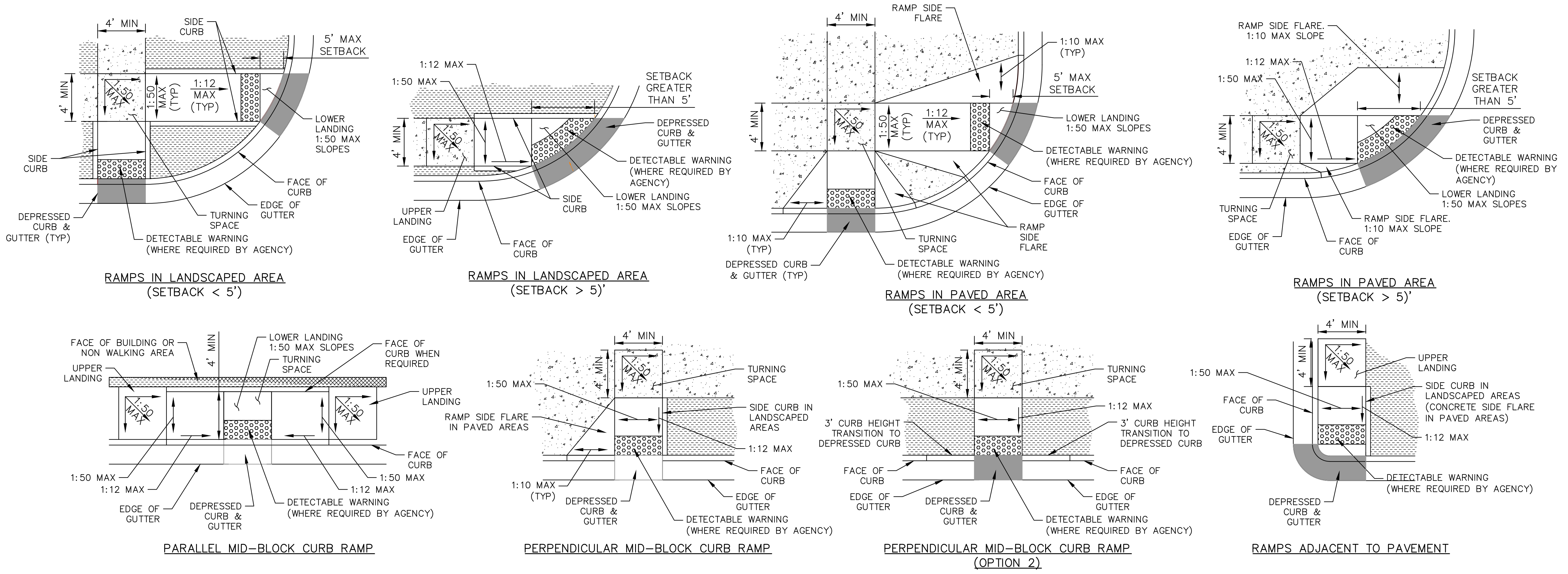
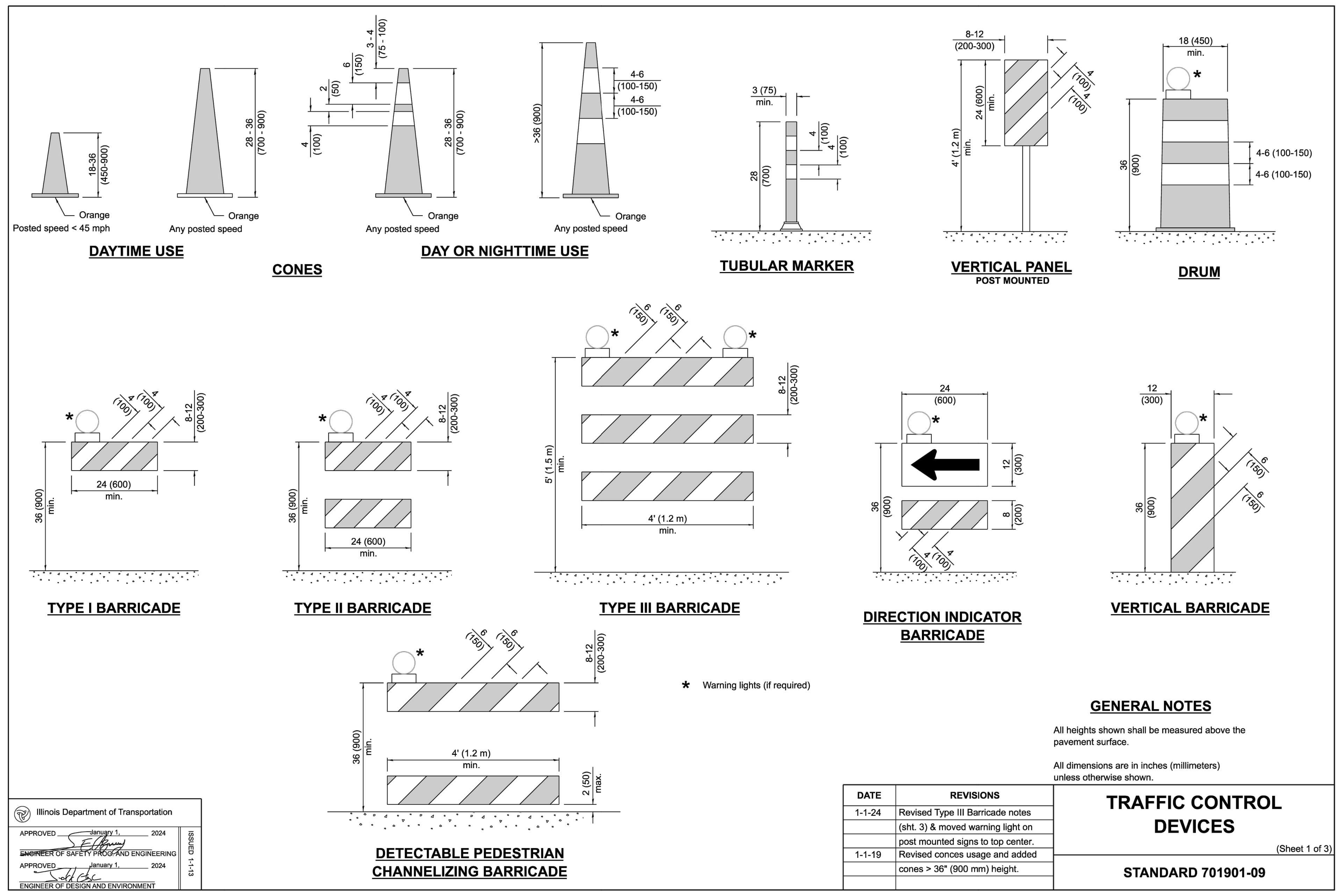

4' MIN
SIDE CURB
5' MAX SETBACK
1:12 MAX
1:50 MAX
1:12 MAX (TYP)
LOWER LANDING 1:50 MAX SLOPES
SIDE CURB
FACE OF CURB
EDGE OF GUTTER
TURNING SPACE
DEPRESSED CURB & GUTTER (TYP)
DETECTABLE WARNING (WHERE REQUIRED BY AGENCY)
RAMPS IN LANDSCAPED AREA (SETBACK < 5')
SETBACK GREATER THAN 5'
DEPRESSED CURB & GUTTER
DETECTABLE WARNING (WHERE REQUIRED BY AGENCY)
LOWER LANDING 1:50 MAX SLOPES
UPPER LANDING
EDGE OF GUTTER
FACE OF CURB
RAMPS IN LANDSCAPED AREA (SETBACK > 5')
RAMP SIDE FLARE
1:10 MAX (TYP)
5' MAX SETBACK
1:12 MAX (TYP)
LOWER LANDING 1:50 MAX SLOPES
DETECTABLE WARNING (WHERE REQUIRED BY AGENCY)
FACE OF CURB
EDGE OF GUTTER
RAMP SIDE FLARE
1:10 MAX (TYP)
DEPRESSED CURB & GUTTER (TYP)
TURNING SPACE
RAMPS IN PAVED AREA (SETBACK < 5')
RAMP SIDE FLARE, 1:10 MAX SLOPE
SETBACK GREATER THAN 5'
RAMP SIDE FLARE, 1:10 MAX SLOPE
LOWER LANDING 1:50 MAX SLOPES
RAMPS IN PAVED AREA (SETBACK > 5')
FACE OF BUILDING OR NON WALKING AREA
UPPER LANDING
LOWER LANDING 1:50 MAX SLOPES
TURNING SPACE
FACE OF CURB WHEN REQUIRED
DETECTABLE WARNING (WHERE REQUIRED BY AGENCY)
PARALLEL MID-BLOCK CURB RAMP
TURNING SPACE
SIDE CURB IN LANDSCAPED AREAS
RAMP SIDE FLARE IN PAVED AREAS
PERPENDICULAR MID-BLOCK CURB RAMP
3' CURB HEIGHT TRANSITION TO DEPRESSED CURB
PERPENDICULAR MID-BLOCK CURB RAMP (OPTION 2)
SIDE CURB IN LANDSCAPED AREAS (CONCRETE SIDE FLARE IN PAVED AREAS)
RAMPS ADJACENT TO PAVEMENT

SIDEWALK AND SIDEWALK RAMPS

N.T.S.


Orange
Posted speed < 45 mph
DAYTIME USE
Any posted speed
CONES
DAY OR NIGHTTIME USE
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
Illinois Department of Transportation
APPROVED January 1, 2024
ENGINEER OF SAFETY PROG. AND ENGINEERING
APPROVED January 1, 2024
ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-13
TRAFFIC CONTROL DEVICES
(Sheet 1 of 3)
STANDARD 701901-09

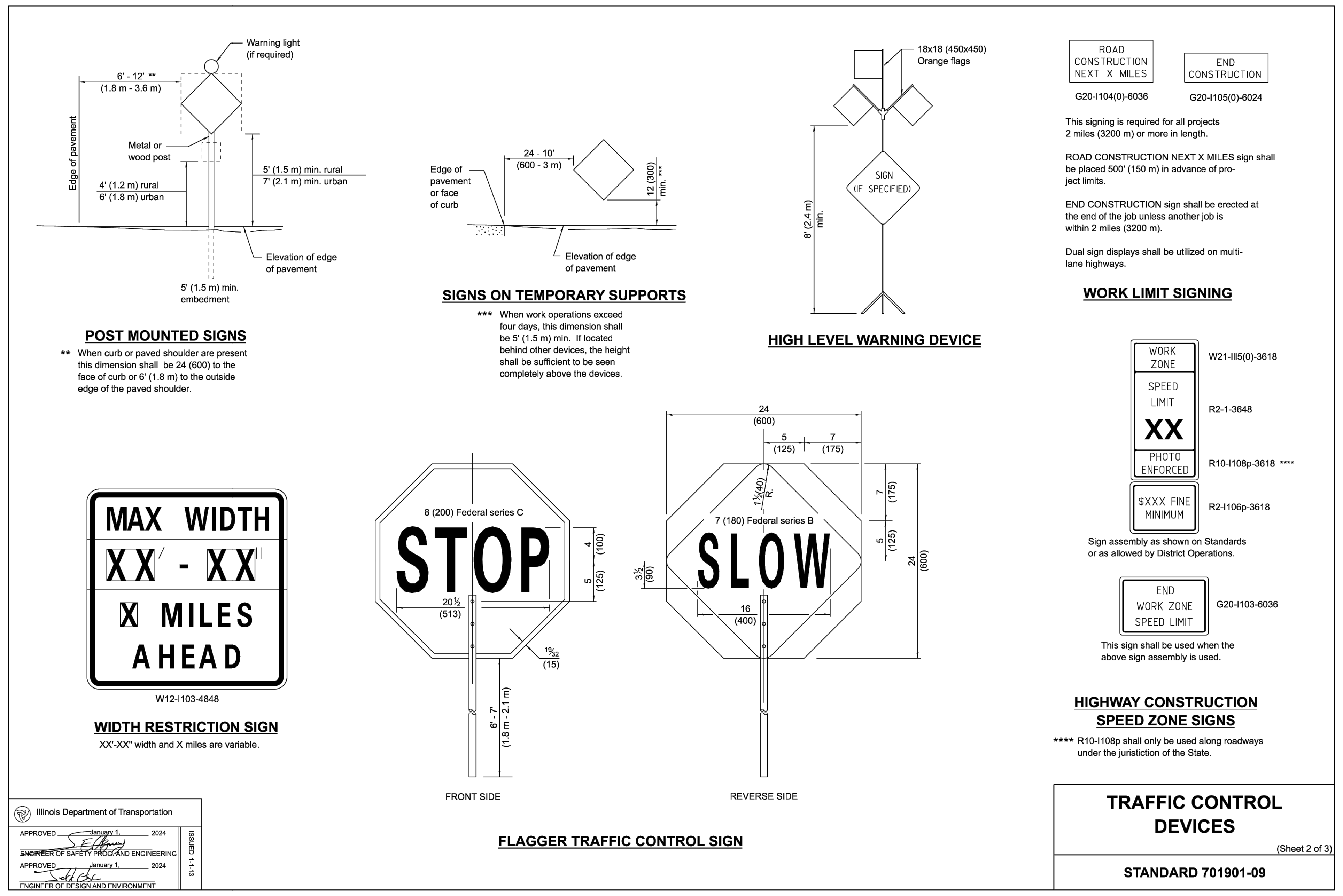
* Warning lights (if required)

GENERAL NOTES

All heights shown shall be measured above the pavement surface.

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

DATE	REVISIONS
1-1-24	Revised Type III Barricade notes
	(sht. 3) & moved warning light on
	post mounted signs to top center.
1-1-19	Revised conces usage and added
	cones > 36" (900 mm) height.


Warning light (if required)
6' - 12' **
Metal or wood post
5' (1.5 m) min. rural
7' (2.1 m) min. urban
4' (1.2 m) rural
6' (1.8 m) urban
Edge of pavement
Elevation of edge of pavement
5' (1.5 m) min. embedment
POST MOUNTED SIGNS
24 - 10'
Edge of pavement or face of curb
SIGNS ON TEMPORARY SUPPORTS
18x18 (450x450) Orange flags
SIGN (IF SPECIFIED)
HIGH LEVEL WARNING DEVICE
ROAD CONSTRUCTION NEXT X MILES
G20-I104(0)-6036
END CONSTRUCTION
G20-I105(0)-6024
WORK LIMIT SIGNING
WORK ZONE
W21-III5(0)-3618
SPEED LIMIT XX
R2-1-3648
PHOTO ENFORCED
R10-I108p-3618 ****
$XXX FINE MINIMUM
R2-I106p-3618
END WORK ZONE SPEED LIMIT
G20-I103-6036
HIGHWAY CONSTRUCTION SPEED ZONE SIGNS
MAX WIDTH XX' - XX" X MILES AHEAD
W12-I103-4848
WIDTH RESTRICTION SIGN
8 (200) Federal series C
STOP
7 (180) Federal series B
SLOW
FRONT SIDE
REVERSE SIDE
FLAGGER TRAFFIC CONTROL SIGN
Illinois Department of Transportation
APPROVED January 1, 2024
ENGINEER OF SAFETY PROG. AND ENGINEERING
APPROVED January 1, 2024
ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-13
TRAFFIC CONTROL DEVICES
(Sheet 2 of 3)
STANDARD 701901-09

** 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.

*** 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.

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).

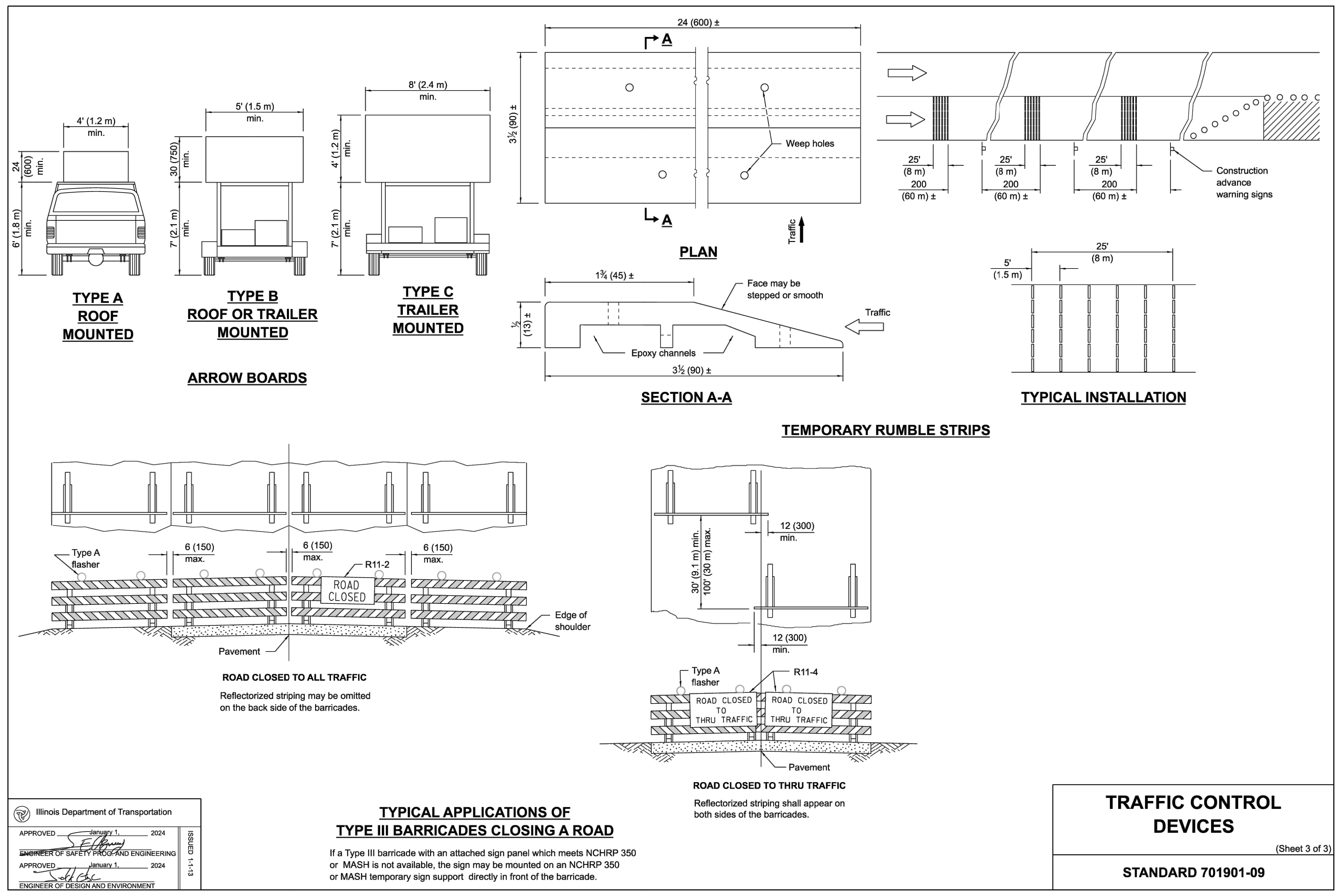
Dual sign displays shall be utilized on multi-lane highways.

Sign assembly as shown on Standards or as allowed by District Operations.

This sign shall be used when the above sign assembly is used.

XX'-XX" width and X miles are variable.

**** R10-I108p shall only be used along roadways under the juristiction of the State.


4' (1.2 m) min.
TYPE A ROOF MOUNTED
5' (1.5 m) min.
TYPE B ROOF OR TRAILER MOUNTED
8' (2.4 m) min.
TYPE C TRAILER MOUNTED
ARROW BOARDS
24 (600) ±
Weep holes
Traffic
PLAN
1¾ (45) ±
Face may be stepped or smooth
Epoxy channels
3½ (90) ±
SECTION A-A
25' (8 m)
200 (60 m) ±
Construction advance warning signs
5' (1.5 m)
TYPICAL INSTALLATION
TEMPORARY RUMBLE STRIPS
Type A flasher
6 (150) max.
R11-2
ROAD CLOSED
Edge of shoulder
Pavement
ROAD CLOSED TO ALL TRAFFIC
12 (300) min.
R11-4
ROAD CLOSED TO THRU TRAFFIC
TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD
Illinois Department of Transportation
APPROVED January 1, 2024
ENGINEER OF SAFETY PROG. AND ENGINEERING
APPROVED January 1, 2024
ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-13
TRAFFIC CONTROL DEVICES
(Sheet 3 of 3)
STANDARD 701901-09

Reflectorized striping may be omitted on the back side of the barricades.

Reflectorized striping shall appear on both sides of the barricades.

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.

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

Kimley»Horn

570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847-260-7804
WWW.KIMLEY-HORN.COM

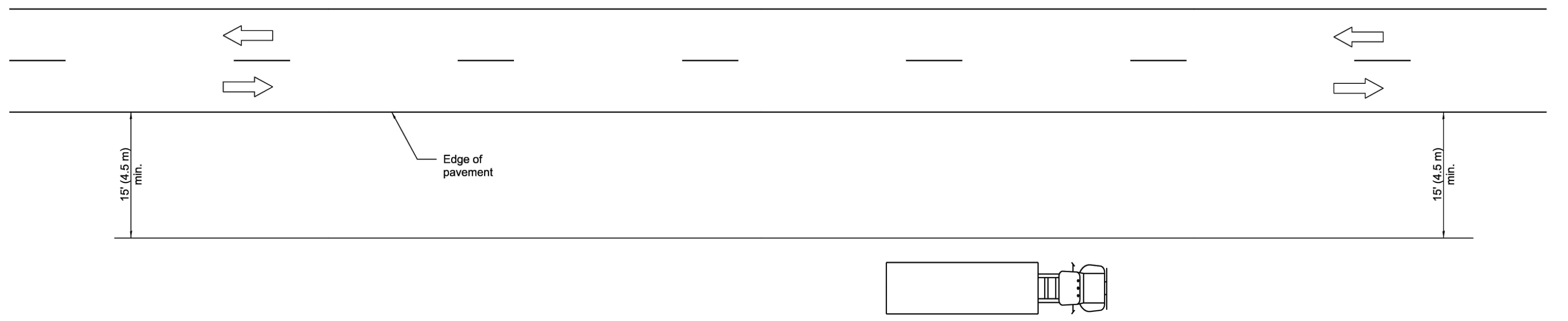
SUGAR GROVE, LLC

CONSTRUCTION
DETAILS

THE GROVE - AREA 1
(SINGLE FAMILY)
SUGAR GROVE, IL 60554

ORIGINAL ISSUE:
1/31/2025
KHA PROJECT NO.
168740009
SHEET NUMBER
C8.9

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove_il\2 Design\CAD\plansheets\Lot 1\C8.0 CONSTRUCTION DETAILS.dwg C8.9 Jul 01, 2025 9:41am by: Joe.Hronch


Edge of pavement
15' (4.5 m) min.
15' (4.5 m) min.

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.

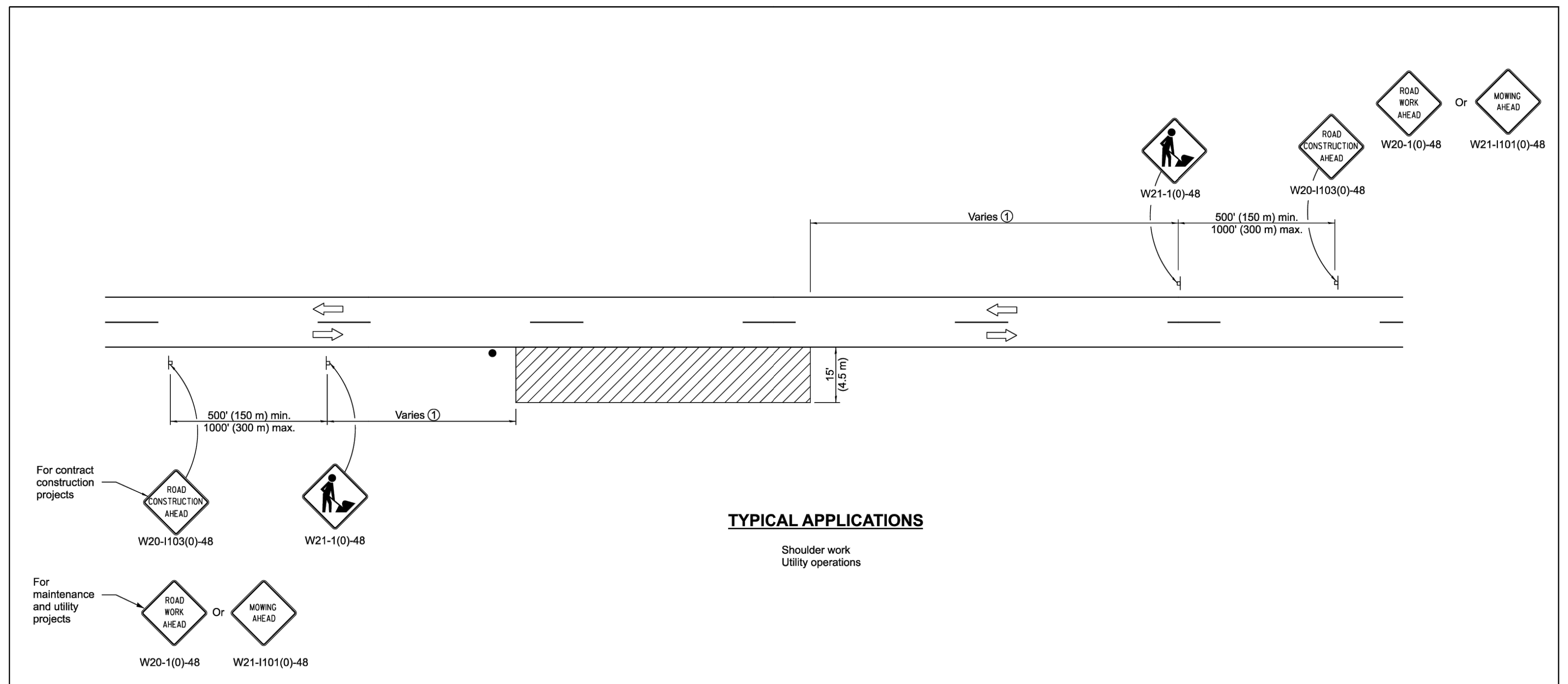
Illinois Department of Transportation

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


ROAD WORK AHEAD
W20-1(0)-48
Or
MOWING AHEAD
W21-I101(0)-48
ROAD CONSTRUCTION AHEAD
W20-I103(0)-48
W21-1(0)-48
Varies ①
500' (150 m) min.
1000' (300 m) max.
15' (4.5 m)
500' (150 m) min.
1000' (300 m) max.
Varies ①
For contract construction projects
ROAD CONSTRUCTION AHEAD
W20-I103(0)-48
W21-1(0)-48
For maintenance and utility projects
ROAD WORK AHEAD
Or
MOWING AHEAD
W20-1(0)-48
W21-I101(0)-48

TYPICAL APPLICATIONS

Shoulder work
Utility operations

① Minimum distance is 200' (60 m). Maximum distance to be determined by the Engineer but should not exceed ½ the length required for one normal working day's operation, or 4 miles (6.4 km) whichever is less.

SYMBOLS

▨	Work area
⊧	Sign
●	Flagger with traffic control sign when required

GENERAL NOTES

This Standard is used where at any time, any vehicle, equipment. workers or their activities require an intermittent or continuous moving operation on the shoulder, where the average speed is 1 mph (2 km/h) or less.

When the work operation does not exceed 60 minutes, traffic control may be according to Standard 701301.

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

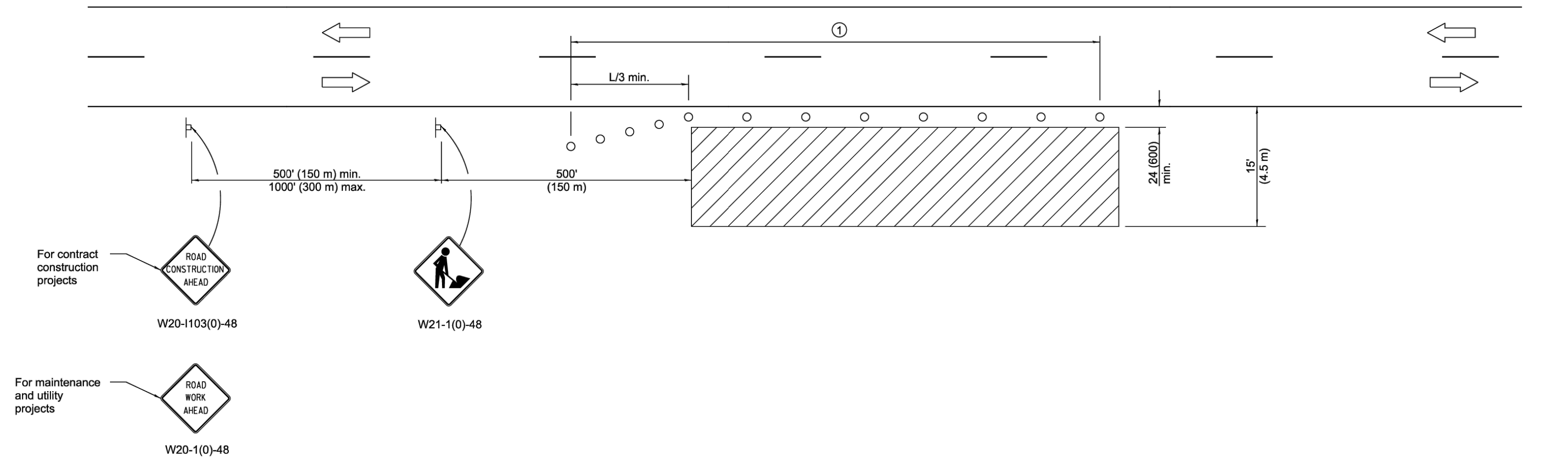
Illinois Department of Transportation

APPROVED January 1, 2014
ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2014
ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-97

DATE	REVISIONS
1-1-14	Revised workers sign number to
	agree with current MUTCD.
1-1-13	Omitted text 'WORKERS' sign.

OFF-RD MOVING OPERATIONS 2L, 2W, DAY ONLY

STANDARD 701011-04


①
L/3 min.
500' (150 m) min.
1000' (300 m) max.
500' (150 m)
24 (600) min.
15' (4.5 m)
For contract construction projects
ROAD CONSTRUCTION AHEAD
W20-I103(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	FORMULAS (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.

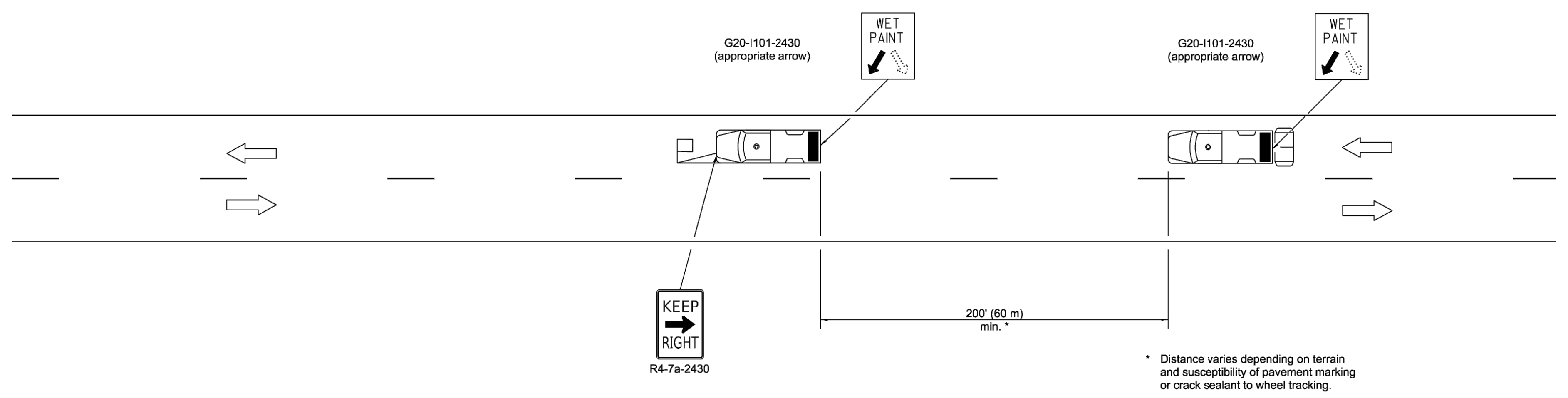
Illinois Department of Transportation

APPROVED January 1, 2014
ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2014
ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-97

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


G20-I101-2430
(appropriate arrow)
WET PAINT
G20-I101-2430
(appropriate arrow)
WET PAINT
KEEP RIGHT
R4-7a-2430
200' (60 m) min. *

* Distance varies depending on terrain and susceptibility of pavement marking or crack sealant to wheel tracking.

TYPICAL APPLICATIONS

Landscaping work
Utility work
Pavement marking
Weed spraying
Roadometer measurements
Debris cleanup
Crack pouring

SYMBOLS

▮	Arrow board (Hazard Mode only)
	Truck with headlights, emergency flashers and flashing amber light. (visible from all directions)
	18 x 18 (450x450) min. orange flag (use when guide wheel is used)
	Truck mounted attenuator

GENERAL NOTES

This Standard is used where any vehicle, equipment, workers or their activities will require a continuous moving operation where the average speed is greater than 3 mph (5 km/h).

For shoulder operations not encroaching on the pavement, use DETAIL A, Standard 701426.

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).
	Omitted Pass With Care sign.
1-1-00	Eliminated speed restrictions
	in Standard title.

LANE CLOSURE 2L, 2W MOVING OPERATIONS-DAY ONLY

STANDARD 701311-03

No.	REVISIONS	DATE	BY
3	PER VILLAGE COMMENT	07/01/25	JRH
2	PER VILLAGE COMMENT	05/30/25	JRH
1	PER VILLAGE COMMENT	04/21/25	JRH

Kimley»Horn

570 LAKE COOK ROAD, SUITE 200
DEERFIELD, IL 60015
PHONE: 847-260-7804
WWW.KIMLEY-HORN.COM

SCALE: AS NOTED
DESIGNED BY: JRH
DRAWN BY: SFH
CHECKED BY: EJT

SUGAR GROVE, LLC

CONSTRUCTION DETAILS

THE GROVE - AREA 1 (SINGLE FAMILY)

SUGAR GROVE, IL 60554

ORIGINAL ISSUE: 1/31/2025
KHA PROJECT NO. 168740009
SHEET NUMBER

C8.10

Drawing name: K:\CHS_LDEV\168740009_crown_lots1&2_sugar grove _il\2 Design\CAD\plansheets\Lot 1\C8.0 CONSTRUCTION DETAILS.dwg C8.10 Jul 01, 2025 9:42am by: Joe.Hannah