SITE IMPROVEMENT PLANS

FOR

1960 WEST LUCENT LANE

NAPERVILLE, ILLINOIS
KARIS CRITICAL

H477a
1960 WEST LUCENT LANE
4 09/26/25

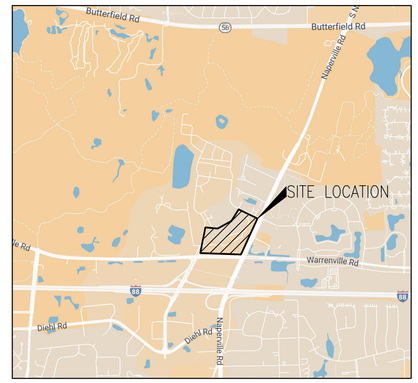
KARIS

ABBREVIATION LEGEND

ADA	AMERICANS WITH DISABILITIES ACT
B/	BOTTOM OF
BC	BACK OF CURB ELEVATION
C-C	CENTER TO CENTER SPACING
C&G	CURB AND GUTTER
CB	CATCH BASIN
DEP	DEPRESSED
DIP	DUCTILE IRON PIPE
DWS	DETECTABLE WARNING STRIP
EP	EDGE OF PAVEMENT ELEVATION
EX	EXISTING
FH	FIRE HYDRANT
FR	FUTURE
GR	GRADE RING ELEVATION
HC	HANDICAPPED
HWL	POND HIGH WATER LEVEL
I	UTILITY INVERT ELEVATION
MH	MANHOLE
NWL	POND NORMAL WATER LEVEL
PC	PRESSURE CONNECTION
PCC	PORTLAND CEMENT CONCRETE
PR	PROPOSED
PVC	POLYVINYL CHLORIDE PIPE
R	UTILITY STRUCTURE RIM ELEVATION
R&R	REMOVE AND REPLACE
RCP	REINFORCED CONCRETE PIPE
STM	STORM SEWER
T/	TOP OF
TC	TOP OF CURB ELEVATION
TDC	TOP OF DEPRESSED CURB ELEVATION
TF	TOP OF FOUNDATION ELEVATION
TW	TOP OF RETAINING WALL ELEVATION
VCP	VITRIFIED CLAY PIPE
VIF	VERIFY IN FIELD
Vv	VALVE VAULT
W/	WITH
WM or WTR	WATER MAIN

LEGEND

PROPOSED	DESCRIPTION	EXISTING
C	STORM SEWER	C
8W	WATER MAIN WITH SIZE	8W
	SANITARY SEWER	
	RIGHT-OF-WAY/PROPERTY LINE	
842	CONTOUR	701
805.25	SPOT GRADE	701.30
	SANITARY MANHOLE	
	STORM MANHOLE	
	STORM INLET	
	STORM CATCH BASIN	
	FIRE HYDRANT	
	PRESSURE CONNECTION	
	GATE VALVE W/VAULT	
	LIGHT POLE	
	STREET LIGHT W/MAST	
	UTILITY POLE	
XX	SILT FENCE	
	OVERFLOW DIRECTION	
	SURFACE/DITCH FLOW DIRECTION	
	ROAD SIGN	
	CURB & GUTTER	
	DEPRESSED CURB FOR RAMP/DRIVEWAY	
TF	TOP OF FOUNDATION	
GF	GARAGE FLOOR, AT REAR OF GARAGE	
TD	TOP OF CURB, DEPRESSED	
TW	TOP OF RETAINING WALL	
R=	RIM FOR STRUCTURES	
HWL/NWL	HIGH/NORMAL WATER LEVEL	
T	TRANSFORMER	
X	FENCE LINE	X
	GUARD RAIL	
	FORCE MAIN	
T	UNDERGROUND TELEPHONE	T
E	UNDERGROUND ELECTRIC	E
OHE	OVERHEAD ELECTRIC	OHE
G	UNDERGROUND GAS LINE	G



LOCATION MAP
NOT TO SCALE

DRAWING INDEX

SHEET	TITLE
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C9.0 – C9.2	DETAILS

BENCHMARK & LOCATIONS:

REFERENCE BENHMARK(S):
CITY OF NAPERVIKLLE SURVEY MONUMENT STATION NO. 703

BERNSTEN 3D TOP SECURITY MONUMENT. CONSISTING OF A 9/16" DIAM. STAINLESS STEEL DATUM POINT ON THREADED 9/16" X 4' LONG ROD TOTALING (8') IN LENGTH WITH GREASED TOP SECURITY SLEEVE ENCLOSED IN SAND AND 6" PVC PIPE WITH BMAC 6 ALUMINUM ACCESS COVER.

ELEVATION = 780.31 (NAVD 1988)

SITE BENCHMARK(S):
SITE BENCHMARK 1 (SBM 1) (JHA CP 2) – CROSS NOTCH CUT IN TOP OF CURB

SBM 1 IS A CROSS NOTCH CUT IN THE TOP OF CONC. CURB ON THE W. SIDE OF W. LUCENT LN./FREEDOM DR. +–610' N. OF BARKEI LN. NEAR THE NW COR. OF OUR SITE (W. SIDE OF STREET). "X" IS OPP. THE NW'LY MOST ENTRANCE NEAR THE NW. COR. OF OUR SITE @ 1960 NAPERVILLE WHEATON RD. "X" IS +–0.20'E. OF THE W. BACK OF CURB OF W. LUCENT LN. (NEAR NW. COR. OF SITE)

ELEVATION = 739.86

SITE BENCHMARK 2 (SBM 2) (JHA CP 3) – MAG NAIL SET IN ASPH.

SITE BENCHMARK 2 IS A MAG NAIL SET IN THE ASPH. PATH RUNNING E–W IN THE N'LY. R.O.W. OF WEATHERBEE LN.(AKA LUCENT LN.) NEAR THE NW. COR. OF THE INTERSECTION OF WEATHERBEE LN. & NAPERVILLE RD. NAIL IS +–210' NW. OF THE CENTERLINE OF NAPERVILLE RD. NAIL IS +–7.30' NW. OF THE W. SIDE OF THE DRIVEWAY ENT. 2104–2114 WEATHERBEE LN. (MULTI FAMILY UNITS). NAIL IS +–0.50' NE. OF THE S'LY. EDGE OF PAVE OF THE ASPH. PATH. (NEAR NE. COR. OF SITE)

ELEVATION = 738.01

SITE BENCHMARK 3 (SBM 3) (JHA CP 4) – MAG NAIL SET IN ASPH.

SITE BENCHMARK 3 IS A MAG NAIL SET IN THE ASPH. PATH RUNNING N–S IN THE W'LY. R.O.W. OF NAPERVILLE RD. NEAR THE NW. COR. OF THE INTERSECTION OF NAPERVILLE RD. & WARRENVILLE RD. NAIL IS +–150' NE. OF THE CENTERLINE OF WARRENVILLE RD. NAIL IS +–26' NE. OF A TRAFFIC SIGNAL POST ON A PIECE OF CONC. WALK CONNECTING THE ASPH PATH TO THE CROSSWALK AT THE BACK OF CURB AND NAIL IS +–0.40' W. OF THE E'LY. EDGE OF PAVEMENT OF THE ASPH. PATH. (NEAR THE SE. COR. OF SITE)

ELEVATION = 736.11

SITE BENCHMARK 4 (SBM 4) (JHA CP 1) – MAG NAIL SET IN ASPH.

SBM 4 IS A MAG NAIL SET IN THE ASPH. PATH RUNNING E–W ALONG THE N. R.O.W. OF WARRENVILLE RD. NEAR THE SW. COR. OF OUR SITE, ALSO BEING NEAR THE NE. COR. OF THE INTERSECTION OF WARRENVILLE RD. & LUCENT LN./FREEDOM DR. NAIL IS +–57' E. OF THE POINT WHERE THE W. END OF THE ASPH. PATH CONNECTS TO THE CONC. WALK AT THAT INTERSECTION. NAIL IS +–41' NE. OF A STORM MANHOLE IN THE RIGHT TURN LANE TO TURN FROM WARRENVILLE RD. ON TO LUCENT LN./FREEDOM DR. (NEAR SW. COR. OF SITE)

ELEVATION = 755.74

No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	06/12/25
1	ORIGINAL PLAN DATE	04/07/25

REVISIONS

WARNING

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County: DuPage
Township: 38N
Range: 10E
Section: 5

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GENERAL NOTES

1. ALL PAVING AND RELATED CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION, ALL AMENDMENTS THERETO AND IN ACCORDANCE WITH THE LATEST EDITION OF THE SUBDIVISION REGULATIONS OF THE MUNICIPALITY. IN CASE OF CONFLICT, THE MORE STRINGENT CODE SHALL TAKE PRECEDENCE.

2. ALL STORM SEWER, SANITARY SEWER AND WATER MAIN CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION AND IN ACCORDANCE WITH THE CURRENT SUBDIVISION REGULATIONS OF THE MUNICIPALITY UNLESS OTHERWISE NOTED ON THE PLANS.

3. 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 THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE CONSIDERED A PART OF THIS CONTRACT.

4. 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. AT 800-892-0123 AND THE MUNICIPALITY FOR UTILITY LOCATIONS.

5. NO CONSTRUCTION PLANS SHALL BE USED FOR CONSTRUCTION UNLESS SPECIFICALLY MARKED "FOR CONSTRUCTION." PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THE WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IN ADDITION, THE CONTRACTOR MUST VERIFY THE ENGINEER'S LINE AND GRADE STAKES. IF THERE ARE ANY DISCREPANCIES WITH WHAT IS SHOWN ON THE CONSTRUCTION PLANS, HE MUST IMMEDIATELY REPORT SAME TO ENGINEER BEFORE COMMENCING 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 HIS 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.

6. NOTIFICATION OF COMMENCING CONSTRUCTION

   A. THE CONTRACTOR SHALL NOTIFY THE OWNER AND/OR HIS REPRESENTATIVE AND THE 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, EITHER MUNICIPALITY'S OR THE OWNER'S, SUFFICIENTLY IN ADVANCE OF CONSTRUCTION.

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

7. ALL CONTRACTORS SHALL KEEP ACCESS AVAILABLE AT ALL TIMES, FOR ALL TYPES OF TRAFFIC. AT NO TIME SHALL ACCESS BE DENIED TO PROPERTIES SURROUNDING THE SITE.

8. ALL PROPOSED ELEVATIONS SHOWN ON THE PLANS ARE FINISHED SURFACE ELEVATIONS, UNLESS OTHERWISE SPECIFIED.

9. 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 AT THE CONTRACTOR'S COST.

10. ALL FRAMES AND LIDS FOR STORM AND SANITARY SEWER STRUCTURES ARE TO BE ADJUSTED TO MEET FINAL FINISHED GRADE. THIS ADJUSTMENT IS TO BE MADE BY THE SEWER 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. FINAL GRADES ARE TO BE DETERMINED BY THE MUNICIPALITY AT THE TIME OF FINAL INSPECTION AND MAY VARY FROM PLAN GRADE.

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

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

13. ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER SYSTEM OR SHALL BE RESTORED TO PROPER OPERATING CONDITION. A RECORD OF THE LOCATION OF ALL FIELD TILE OR DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE CONTRACTOR AND TURNED OVER TO THE ENGINEER UPON COMPLETION OF THE PROJECT. THE COST OF THIS WORK SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED BY OWNER AND MUNICIPALITY.

14. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE GUARANTEED BY THE CONTRACTOR AND HIS SURETY FOR A PERIOD OF 12 MONTHS FROM THE DATE OF FINAL ACCEPTANCE OF THE PROJECT. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DEFECTS IN MATERIALS AND WORKMANSHIP OF WHATEVER NATURE DURING THAT PERIOD.

15. BEFORE ACCEPTANCE BY THE OWNER AND FINAL PAYMENT, ALL WORK SHALL BE INSPECTED BY THE OWNER OR HIS REPRESENTATIVE. FINAL PAYMENT WILL BE MADE AFTER ALL THE CONTRACTOR'S WORK HAS BEEN APPROVED AND ACCEPTED BY THE OWNER AND MUNICIPALITY.

16. UPON AWARDING OF THE CONTRACT AND WHEN REQUIRED BY THE MUNICIPALITY, THE CONTRACTOR SHALL FURNISH A LABOR, MATERIAL AND PERFORMANCE BOND WITH INSURANCE, IN THE AMOUNT REQUIRED BY THE MUNICIPALITY, GUARANTEEING COMPLETION OF THE WORK. THE UNDERWRITER SHALL BE ACCEPTABLE TO THE MUNICIPALITY.

17. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO KNOWN 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 WITH LOCATIONS OF THE NEW CONSTRUCTION, JACOB AND HEFNER ASSOCIATES, INC. IS RESPONSIBLE TO RESOLVE THE CONFLICT. JACOB AND HEFNER ASSOCIATES, INC. IS NOT RESPONSIBLE FOR THE COST OF CONSTRUCTION.

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

19. THE CONTRACTORS SHALL PLAN THEIR WORK BASED ON THEIR OWN BORINGS, EXPLORATIONS AND OBSERVATIONS TO DETERMINE SOIL CONDITIONS AT THE LOCATION OF THE PROPOSED WORK.

20. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SAFETY ON THE JOB SITE IN ACCORDANCE WITH OSHA REGULATIONS.

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

22. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE PROPER BARRICADING, WARNING DEVICES AND THE SAFE MANAGEMENT OF TRAFFIC AND PEDESTRIANS WITHIN THE AREA OF CONSTRUCTION. ALL SUCH DEVICES AND THEIR INSTALLATION SHALL CONFORM TO THE ILLINOIS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS," LATEST EDITION AND IN CONFORMANCE WITH REGULATIONS OF THE MUNICIPALITY OR D.O.T.

23. NO UNDERGROUND WORK 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 COURSE OR SURFACE COURSE AND PRIOR TO POURING ANY CONCRETE AFTER FORMS HAVE BEEN SET.

24. 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.

25. 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.

26. TREES NOT MARKED FOR REMOVAL SHALL BE CONSIDERED AS DESIGNATED TO BE SAVED AND SHALL BE PROTECTED UNDER THE PROVISIONS OF ARTICLE 201.05 OF THE STANDARD SPECIFICATIONS.

27. LIMB PRUNING SHALL BE PERFORMED UNDER THE SUPERVISION OF AN APPROVED LANDSCAPE ARCHITECT AND SHALL BE UNDERTAKEN IN A TIMELY FASHION SO AS NOT TO INTERFERE WITH CONSTRUCTION.

28. ALL LIMBS, BRANCHES AND OTHER DEBRIS RESULTING FROM THIS WORK SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR AT HIS OWN EXPENSE.

29. ALL CUTS OVER ONE INCH IN DIAMETER SHALL BE MADE FLUSH WITH THE NEXT LARGE BRANCH. WOUNDS OVER ONE INCH IN DIAMETER SHALL BE PAINTED WITH AN APPROVED TREE PAINT.

30. ANY DEWATERING OF SEWER AND WATER TRENCHES, AS WELL AS TEMPORARY SHEETING OR BRACING THAT MAY BE REQUIRED, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT BE CONSIDERED EXTRA WORK. IN THE EVENT THAT SOFT MATERIALS WITH UNCONFINED COMPRESSIVE STRENGTH LESS THAN 0.5 TSF ARE ENCOUNTERED DURING SEWER AND WATER MAIN CONSTRUCTION, THE CONTRACTOR SHALL (UPON APPROVAL OF THE OWNER AND/OR ENGINEER) OVER-EXCAVATE TO A DEPTH OF AT LEAST ONE FOOT BELOW THE BOTTOM OF THE PIPE. THE TRENCH SHALL BE BACKFILLED WITH COMPACTED CRUSHED STONE, PROPERLY FORMED TO FIT THE BOTTOM OF THE PIPE.

31. THE CONTRACTOR SHALL RECORD VIDEO OF THE WORK AREA PRIOR TO CONSTRUCTION FOR THE PURPOSE OF DOCUMENTING EXISTING CONDITIONS.

32. AGGREGATE TRENCH BACKFILL WILL BE REQUIRED TO FULL DEPTH ABOVE ALL UNDERGROUND UTILITIES WITHIN TWO FEET OF PROPOSED OR EXISTING PAVEMENT, UTILITIES, BUILDINGS AND SIDEWALKS. AGGREGATE TRENCH BACKFILL SHALL BE INSTALLED IN ACCORDANCE WITH CURRENT IDOT STANDARD SPECIFICATIONS. TRENCH BACKFILL AND BEDDING MATERIAL SHALL CONSIST OF CRUSHED GRAVEL CONFORMING TO IDOT GRADATIONS CA-6 OR CA-7. AGGREGATE TRENCH BACKFILL SHALL BE PLACED IN CONTROLLED LIFTS (12 INCH LOOSE MEASURE TYPICAL FOR GRANULAR MATERIAL) WITH EACH LIFT VIBRATORY COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY BASED ON A MODIFIED PROCTOR TEST (ASTM D 1557), OR IN THE CASE OF OPEN GRADED STONE, TO A FIRM, DENSE STATE AS OBSERVED BY THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE PRIOR TO PLACEMENT OF THE NEXT LIFT. LIFT THICKNESS ADJUSTMENTS CAN ONLY BE DETERMINED/APPROVED BY THE GEOTECHNICAL ENGINEER (OR HIS REPRESENTATIVE) BASED ON THE SIZE/TYPE OF COMPACTING EQUIPMENT USED.

33. WHERE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, EXISTING DRAINAGE STRUCTURES AND SYSTEMS SHALL BE CLEANED OF DEBRIS AND PATCHED AS NECESSARY TO ASSURE INTEGRITY OF THE STRUCTURE.

34. HYDRANTS SHALL NOT BE FLUSHED DIRECTLY ONTO THE ROAD SUBGRADES. WHEREVER POSSIBLE, HOSES SHALL BE USED TO DIRECT THE WATER INTO STORM SEWERS. DAMAGE TO THE ROAD SUBGRADE OR LOT AREAS DUE TO EXCESSIVE WATER SATURATION AND/OR EROSION FROM HYDRANT FLUSHING OR LEAKS IN THE WATER DISTRIBUTION SYSTEM, WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. FLUSHING OR USING THE HYDRANT TO MAKE ALL NECESSARY REPAIRS WILL BE AT HIS EXPENSE. THE CONTRACTOR SHALL PROVIDE ALL CONSTRUCTION WATER AT HIS EXPENSE.

35. AFTER THE STORM SEWER SYSTEM HAS BEEN CONSTRUCTED, THE CONTRACTOR SHALL PLACE EROSION CONTROL AT LOCATIONS SHOWN ON THE PLANS OR AS SELECTED IN THE FIELD BY THE ENGINEER. INLET PROTECTION (INLET BASKETS) SHALL BE INSTALLED IN EACH STRUCTURE AS SOON AS THE STRUCTURE INSTALLATION IS COMPLETE. THE PURPOSE OF THE EROSION CONTROL WILL BE TO MINIMIZE THE AMOUNT OF SILTATION, WHICH NORMALLY ENTERS THE STORM SEWER SYSTEM FROM ADJACENT AND/OR UPSTREAM DRAINAGE AREAS.

36. EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH ILLINOIS URBAN MANUAL AND SHALL BE MAINTAINED BY THE CONTRACTOR. EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL A SUITABLE GROWTH OF GRASS, ACCEPTABLE TO THE ENGINEER, HAS BEEN DEVELOPED.

37. UPON PROJECT COMPLETION, THE CONTRACTOR SHALL PROVIDE FINAL RECORD DRAWINGS TO THE OWNER AND ENGINEER FOR REVIEW PRIOR TO ANY REQUEST FOR FINAL INSPECTION. AT A MINIMUM, THE RECORD DRAWINGS SHALL INDICATE THE FINAL LOCATION AND LAYOUT OF ALL SITE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO, VERIFICATION OF ALL BUILDING PAD AND FINISHED FLOOR ELEVATIONS, UTILITY RIM AND INVERT ELEVATIONS, KEY PAVEMENT SPOT GRADE ELEVATIONS, LOCATIONS OF ALL WATER SERVICE B-BOXES, SANITARY SEWER SERVICES, AND STORM SEWER SERVICES AND SHALL INCORPORATE ALL FIELD DESIGN CHANGES INCLUDING THOSE APPROVED BY THE OWNER, ENGINEER AND/OR PROJECT GOVERNING AUTHORITY. THE RECORD DRAWINGS SHALL ALSO INCORPORATE FIELD DESIGN CHANGES THAT WERE NOT APPROVED BY OWNER, ENGINEER AND/OR PROJECT GOVERNING AUTHORITY. RECORD DRAWINGS SHALL BE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF A LICENSED PROFESSIONAL LAND SURVEYOR.

EARTHWORK

1. **TOPSOIL EXCAVATION**

   A. TOPSOIL, ORGANIC MATERIAL, OR ANY OTHER UNSUITABLE MATERIALS SHALL BE REMOVED FROM AREAS REQUIRING STRUCTURAL FILL.

   B. PLACEMENT OF EXCAVATED MATERIAL SHALL BE DESIGNATED BY THE OWNER FOR FUTURE USE WITHIN AREAS TO BE LANDSCAPED OR AS FILL IN THE AREAS NOT REQUIRING STRUCTURAL FILL MATERIAL.

   C. EXCESS MATERIALS NOT UTILIZED AS FILL OR NOT STOCKPILED FOR FUTURE LANDSCAPING, SHALL BE COMPLETELY REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF OFF-SITE BY THE CONTRACTOR.

2. **EARTH EXCAVATION**

   A. EXCAVATION OF EARTH AND OTHER MATERIALS, WHICH ARE SUITABLE FOR USE AS STRUCTURAL FILL SHALL BE WITHIN A TOLERANCE OF 0.05 FEET FOR PADS AND PAVEMENT, AT 0.1 FEET +/- OF THE PLAN SUBGRADE ELEVATIONS. THE +/- TOLERANCE WITHIN PAVEMENT AREAS UTILIZING EARTH MATERIALS SHALL "BALANCE" AS PART OF THE FINE GRADING OPERATION.

   B. PLACEMENT OF EARTH AND OTHER SUITABLE MATERIALS SHALL BE PLACED WITHIN THOSE AREAS REQUIRING STRUCTURAL FILL TO ACHIEVE THE PLAN SUBGRADE ELEVATIONS WITHIN A TOLERANCE OF 0.1 FEET +/-. THE FILL MATERIAL SHALL BE PLACED IN LOOSE LIFTS, NOT EXCEED EIGHT INCHES IN THICKNESS. THE WATER CONTENT SHALL BE ADJUSTED IN ORDER TO ACHIEVE THE REQUIRED COMPACTION. EARTH MATERIAL MAY BE PLACED WITHIN THOSE AREAS OF THE SITE NOT REQUIRING STRUCTURAL FILL, WITHIN THE PLAN SUBGRADE ELEVATION. IN AREAS REQUIRING STRUCTURAL FILL, THE EARTH MATERIAL SHALL NOT BE PLACED OVER TOPSOIL OR OTHER UNSUITABLE MATERIALS. THE STRUCTURAL SUBGRADE AREA SHALL EXTEND TO THE ZONE OF INFLUENCE IN ALL FILL AREAS.

   C. COMPACTION OF THE EARTH AND OTHER SUITABLE MATERIALS SHALL BE TO A MINIMUM OF 95% OF THE MODIFIED PROCTOR DRY DENSITY. THIS INCLUDES AREAS WITHIN PROPOSED PAVEMENT AND BUILDING PAD LOCATIONS, SIDEWALKS, ETC. IN NON-STRUCTURAL FILL AREAS, 90% TO 95% OF THE MODIFIED PROCTOR DRY DENSITY IS REQUIRED.

3. **UNSUITABLE MATERIAL**

   A. UNSUITABLE MATERIAL SHALL BE CONSIDERED AS MATERIAL THAT IS NOT SUITABLE FOR THE SUPPORT OF PAVEMENT AND BUILDING CONSTRUCTION. IF IT IS ENCOUNTERED BELOW NORMAL TOPSOIL DEPTHS AND THE PROPOSED SUBGRADE ELEVATION, IT SHALL BE REMOVED AND REPLACED WITH SELECT GRANULAR MATERIAL APPROVED BY THE SOILS ENGINEER. THE DECISION TO REMOVE SAID MATERIAL AND TO WHAT EXTENT, SHALL BE MADE BY A SOILS ENGINEER WITH THE CONCURRENCE OF THE OWNER.

4. **THE GRADING CONTRACTORS RESPONSIBILITIES**

   A. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES DURING THE COURSE OF CONSTRUCTION AND PREVENT STORM WATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS.

   B. SPREAD AND COMPACT UNIFORMLY ALL EXCESS TRENCH SPOIL, AS SPECIFIED, AFTER COMPLETION OF THE UNDERGROUND IMPROVEMENTS.

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

   D. PROVIDE ADDITIONAL WATER TO DRY MATERIAL TO ADJUST THE MOISTURE CONTENT FOR THE PURPOSE OF ACHIEVING THE SPECIFIED COMPACTION.

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

   F. ACCOUNTABLE FOR IMPLEMENTATION OF THE "SOIL EROSION AND SEDIMENTATION CONTROL MEASURES" AS DESCRIBED ON THE PLANS. ALL CONTRACTORS SHALL COMPLY WITH THE SWPPP AND NPDES REQUIREMENTS.

   G. PERFORM LIME STABILIZATION OF THE SUBGRADE MATERIAL IF REQUIRED BY THE SOILS ENGINEER.

5. **TESTING AND FINAL ACCEPTANCE**

   A. THE CONTRACTOR SHALL PROVIDE, AS A MINIMUM, A TANDEM AXLE TRUCK LOADED TO 14 TONS FOR PROOF ROLLING THE PAVEMENT SUBGRADE. PROOF ROLLING SHALL BE PERFORMED PRIOR TO THE PLACEMENT OF THE CURB AND GUTTER AND BASE MATERIAL. THIS SHALL BE WITNESSED AND APPROVED BY THE MUNICIPAL ENGINEER AND OWNER.

   B. ANY UNSUITABLE AREA ENCOUNTERED AS A RESULT OF PROOF ROLLING, SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL APPROVED BY THE SOILS CONSULTANT. PROOF ROLLING SHALL BE PERFORMED UNTIL THE SUBGRADE IS APPROVED BY THE MUNICIPAL ENGINEER, OWNER AND SOILS ENGINEER.

   C. THE WORK AREAS SHALL BE POSITIVELY DRAINED DURING CONSTRUCTION. FINAL GRADES SHALL BE PROTECTED AGAINST DAMAGE FROM EROSION, SEDIMENTATION AND TRAFFIC.

STORM SEWER

1. ALL STORM SEWER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, IN ADDITION TO THE SUBDIVISION CONTROL ORDINANCE OF THE MUNICIPALITY.

2. UNLESS OTHERWISE NOTED ON THE PLANS, ALL STORM SEWERS SHALL BE REINFORCED CONCRETE CULVERT PIPE (RCP), ASTM C 76, WITH "O" RING RUBBER GASKET JOINTS CONFORMING TO ASTM C-443. ALL UNDERDRAINS SHALL BE ADS N-12.

3. ALL DOWNSPOUT AND FOOTING DRAINS SHALL BE DISCHARGED TO THE STORM SEWER SYSTEM OR ONTO THE GROUND.

4. MANHOLE, CATCH BASIN AND INLET BOTTOMS SHALL BE PRECAST CONCRETE SECTIONAL UNITS OR MONOLITHIC CONCRETE. MANHOLES AND CATCH BASINS SHALL BE FOUR FEET IN DIAMETER UNLESS OTHERWISE SPECIFIED ON THE PLANS. MANHOLE JOINTS SHALL BE "O" RING GASKET JOINTS. A MAXIMUM OF SIX INCHES OF ADJUSTING RINGS SHALL BE USED TO ADJUST FRAME ELEVATIONS. THE ADJUSTING RINGS SHALL BE SET WITHIN A FULL MORTAR BED.

5. ALL STORM SEWERS SHALL BE INSTALLED ON TYPE "A" BEDDING, 1/4 TO 3/4 INCH IN SIZE, WITH A MINIMUM THICKNESS EQUAL TO 1/4 OF THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR INCHES. USING BLOCKS OF ANY KIND FOR GRADE IS NOT PERMITTED. THE GRANULAR MATERIAL FOR BEDDING AND TRENCH BACKFILL MATERIAL SHALL CONFORM TO IDOT GRADATION CA-6. THE GRANULAR MATERIAL FOR BEDDING AND INITIAL BACKFILL OF FLEXIBLE PIPE SHALL BE NON-ANGULAR GRAVEL MATERIAL CONFORMING TO ASTM D-2321, CLASS I. THE COST OF BEDDING MATERIAL SHALL BE MERGED WITH THE UNIT PRICE BID FOR THE SEWER. THE BEDDING MATERIALS SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR DENSITY.

6. THE FRAME AND GRATE OR CLOSED LID TYPE SHALL BE AS SPECIFIED ON THE UTILITY PLAN. THE MANHOLE LIDS SHALL BE A MACHINE SURFACED, NON-ROCKING DESIGN. ALL CASTINGS SHALL BE EMBOSSED WITH A FISH IMAGE AND "DUMP NO WASTE-DRAINS TO WATERWAYS" MESSAGE. THE CLOSED LIDS SHALL HAVE THE WORD "STORM" AND THE MUNICIPALITY NAME EMBOSSED ON THE LID. THE JOINT BETWEEN THE CONCRETE SECTION AND FRAME SHALL BE SEALED WITH A MASTIC COMPOUND.

7. ALL STORM SEWERS SHALL BE THOROUGHLY CLEANED PRIOR TO FINAL INSPECTION AND TESTING.

8. AFTER THE STORM SEWER STRUCTURE HAS BEEN CONSTRUCTED, THE CONTRACTOR SHALL PLACE EROSION CONTROL AT LOCATIONS SHOWN ON THE PLANS OR AS SELECTED IN THE FIELD BY THE ENGINEER. THE PURPOSE OF THE EROSION CONTROL WILL BE TO MINIMIZE THE AMOUNT OF SILTATION NORMALLY ENTERING THE STORM SEWER SYSTEM FROM ADJECENT AND/OR UPSTREAM DRAINAGE AREAS.

SANITARY SEWER

1. UNLESS NOTED OTHERWISE, ALL SANITARY SEWER SHALL BE RING-TITE PVC (POLYVINYL CHLORIDE) PLASTIC PIPE. ALL PIPE SHALL CONFORM TO ASTM D-3034 WITH ELASTOMERIC RUBBER RING GASKET JOINTS CONFORMING TO ASTM D3212. THE STANDARD DIMENSION RATIO (SDR) FOR SANITARY PIPE SHALL BE 26. WHERE SPECIFIED, PVC SDR 21 SANITARY SEWER SHALL BE RING-TITE PVC (POLYVINYL CHLORIDE) PLASTIC PIPE, CONFORMING TO ASTM D-2241 WITH ELASTOMERIC RUBBER RING GASKET JOINTS CONFORMING TO ASTM D3139. THE PVC DR18 SANITARY SEWER SHALL CONFORM TO AWWA C900/C905, WITH RUBBER GASKET JOINTS CONFORMING TO AWWA C900/C905.

2. CONNECTING SEWER PIPE OF DISSIMILAR MATERIAL IS NOT PERMITTED.

3. ALL FLOOR DRAINS SHALL CONNECT TO THE SANITARY SEWER. CONNECTIONS TO EXISTING SANITARY SEWER SYSTEM SHALL NOT BE COMPLETED UNTIL AUTHORIZED BY THE MUNICIPALITY.

4. ALL UNSUITABLE MATERIAL SHALL BE REMOVED BELOW THE PROPOSED SANITARY SEWER AND REPLACED WITH COMPACTED CRUSHED GRAVEL, CONFORMING TO ASTM D-2321, CL I.

5. COST FOR PIPE BEDDING SHALL BE MERGED WITH THE UNIT PRICE BID FOR THE SEWER.

6. PIPE BEDDING SHALL CONSIST OF A MINIMUM OF FOUR INCHES OF COMPACTED CRUSHED GRAVEL OR STONE FOR ALL SANITARY SEWERS. SANITARY SEWER PIPE SHALL HAVE TAMPED CRUSHED GRAVEL OR STONE COVER ABOVE THE TOP OF PIPE, TO A MINIMUM OF 12 INCHES. THE BEDDING AND TRENCH BACKFILL MATERIAL SHALL CONFORM TO IDOT GRADTION CA-6 AND INSTALLED PER ASTM D-2321 CLASS I.

7. WATER MAINS SHALL BE SEPARATED FROM SANITARY SEWERS AND STORM SEWERS IN ACCORDANCE WITH IEPA REQUIREMENTS AS SPECIFIED IN THE "WATER MAIN" SECTION.

8. NO WATER LINE SHALL BE PLACED IN THE SAME TRENCH AS A SEWER LINE.

9. THE TESTING OF THE PIPE STRAIGHTNESS AND FIELD TESTING, SHALL BE IN ACCORDANCE WITH THE DEVELOPMENT CODE OF THE MUNICIPALITY.

10. SANITARY SEWER MANHOLES SHALL BE FOUR FOOT INNER DIAMETER MINIMUM, PRECAST REINFORCE CONCRETE RINGS OR MONOLITHIC CONCRETE, CONFORMING TO ASTM C 478. THE STRUCTURE SHALL HAVE AN ECCENTRIC CONE INSTALLED, LINING UP WITH THE MANHOLE STEPS. ALL MANHOLE STEPS SHALL BE NEENAH R-1981-I AT 16 INCHES ON-CENTER.

11. ALL SANITARY SEWER MANHOLE LIDS SHALL BE NEENAH R-1713-B OR APPROVED EQUAL. THE LIDS SHALL HAVE RECESSED (CONCEALED) PICK HOLE AND BE SELF SEALING WITH "O" RING GASKET. THE LIDS SHALL HAVE THE WORD "SANITARY" AND THE MUNICIPALITY NAME EMBOSSED ON THE LID.

12. ALL MANHOLE JOINTS SHALL BE SEALED WITH "O" RING JOINTS. NO MORE THAN EIGHT INCHES OF PRECAST CONCRETE ADJUSTING RINGS SHALL BE USED TO ADJUST FRAME ELEVATIONS. ALL MANHOLES SHALL HAVE MISSION COUPLING TYPE FITTINGS FOR PIPE CONNECTIONS.

13. DROP MANHOLE ASSEMBLIES SHALL BE PROVIDED AT THE JUNCTION OF SANITARY SEWERS WHERE THE DIFFERENCE IN INVERT GRADES EXCEEDS TWO FEET OR AT LOCATIONS SHOWN ON THE PLANS. THE ENTIRE DROP ASSEMBLY SHALL BE CAST IN CONCRETE MONOLITHICALLY WITH THE MANHOLE BARREL.

14. INSPECTION OF MANHOLES:

    ALL MANHOLES SHALL BE THOROUGHLY CLEANED OF DIRT AND DEBRIS. ALL VISIBLE LEAKAGE SHALL BE ELIMINATED BEFORE FINAL INSPECTION AND ACCEPTANCE.

15. TESTING FOR ACCEPTANCE OF SANITARY SEWERS AND MANHOLES, INCLUDING SERVICE LINES, SHALL INCLUDE LOW PRESSURE AIR TEST AND DEFLECTION TEST PER STANDARD SPECIFICATIONS AND SUBDIVISION REGULATIONS OF THE MUNICIPALITY. THE TESTS SHALL BE APPROVED BY THE MUNICIPALITY BEFORE ACCEPTANCE. ALL SANITARY MANHOLES SHALL BE VACUUM TESTED FOR LEAKAGE IN ACCORDANCE WITH MUNICIPAL STANDARDS AND ASTM C 1244-02.

16. TELEVISION TESTING OF ALL SANITARY SEWERS SHALL BE TELEVISED. A COPY OF THE RECORDING AND A WRITTEN REPORT SHALL BE SUBMITTED TO THE MUNICIPALITY FOR APPROVAL. THE REPORT SHALL INCLUDE STUB LOCATIONS, A DESCRIPTION OF ALL DEFECTS, WATER LEVEL, LEAKS AND IDENTIFICATION OF LENGTH FROM THE MANHOLE NUMBER SPECIFIED ON THE APPROVED PLANS. ALL COSTS SHALL BE INCIDENTAL TO THE WORK. TESTING SHALL BE WITNESSED AND APPROVED BY THE MUNICIPALITY BEFORE FINAL ACCEPTANCE. THE LOCATION OF TELEVISION INSPECTION SHALL BE DESIGNATED BY THE MUNICIPAL ENGINEER.

17. IF THE SANITARY SEWER INSTALLATION FAILS TO MEET THE TEST REQUIREMENTS SPECIFIED, THE CONTRACTOR SHALL DETERMINE THE CAUSE OR CAUSES OF THE DEFECT. AT HIS OWN EXPENSE, THE CONTRACTOR SHALL REPAIR OR REPLACE ALL MATERIALS AND WORKMANSHIP AS NECESSARY TO COMPLY WITH THE TEST REQUIREMENTS.

18. THE CERTIFICATION CONTRACTOR SHALL SUBMIT CERTIFIED COPIES OF ALL REPORTS OF THE TESTS CONDUCTED BY AN INDEPENDENT LABORATORY BEFORE INSTALLATION OF PVC PLASTIC PIPE. TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH THE STANDARD METHOD OF TESTING FOR "EXTERNAL LOADING PROPERTIES OF PLASTIC PIPE BY PARALLEL PLATE LOADING," ASTM STANDARD D-2412. TESTS SHALL ALSO BE CONDUCTED IN ACCORDANCE WITH ASTM D-3212, TO DEMONSTRATE JOINT PERFORMANCE AT 5% MAXIMUM DIAMETRIC DEFLECTION OF THE SPIGOT, AS SPECIFIED IN ASTM D-3212 SPECIFICATIONS.

SOIL EROSION AND SEDIMENT CONTROL

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF THE SUBDIVISION CONTROL ORDINANCE OF THE MUNICIPALITY AND THE ILLINOIS URBAN MANUAL.

2. BEFORE STARTING SITE CLEARING AND GRADING WORK, A CONSTRUCTION ENTRANCE AND SILT FENCE SHALL BE INSTALLED AS SHOWN ON THE PLANS.

3. THE CONSTRUCTION ENTRANCE TO THE SITE SHALL BE STABILIZED WITH GRAVEL PRIOR TO BEGINNING ANY WORK ON THE SITE. THE ENTRANCE SHALL BE MAINTAINED PERIODICALLY FOR ITS EFFECTIVENESS TO REMOVE DIRT FROM CONSTRUCTION VEHICLES LEAVING THE SITE.

4. SILT FILTER FENCE SHALL BE PLACED AS SHOWN ON THE PLANS AND AS DIRECTED BY THE MUNICIPALITY'S ENGINEERING INSPECTOR, TO PREVENT SEDIMENT FROM LEAVING THE SITE.

5. STAKED SILT FENCE SHALL BE INSTALLED AND MAINTAINED AROUND THE INLETS AND CATCH BASINS AS SHOWN ON THE PLANS.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION AND MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES.

7. THE CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES WEEKLY AND AFTER ANY STORM EVENT IN EXCESS OF HALF AN INCH. AN INSPECTION REPORT SHALL BE COMPLETED EACH TIME AND KEPT WITHIN A BINDER ON THE JOB SITE AT ALL TIMES. THE NOI, NPDES PERMIT AND SWPP PLAN SHALL ALSO BE KEPT ON-SITE.

8. AT THE COMPLETION OF THE PROJECT, ALL STORM SEWER PIPES AND STRUCTURES SHALL BE CLEANED AND FREE OF DIRT AND DEBRIS. SEDIMENTATION SHALL BE REMOVED FROM THE STORM SEWER SYSTEM AND SHALL NOT BE WASHED OUT INTO THE EXISTING STORM SEWER SYSTEM.

9. THE TEMPORARY EROSION CONTROL MEASURES SHALL BE EFFECTIVELY IN PLACE UNTIL ALL THE PERMANENT EROSION CONTROL MEASURES ARE FULLY FUNCTIONAL.

10. THE GUARANTEE PERIOD SHALL BEGIN AFTER ALL THE PERMANENT EROSION CONTROL MEASURES ARE FULLY FUNCTIONAL AND ACCEPTABLE TO OWNER OR HIS REPRESENTATIVE.

11. STOCKPILES OF ANY KIND SHALL NOT BE PLACED IN SPECIAL MANAGEMENT AREAS. IF A STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN SEVEN DAYS, THEN SEDIMENT AND EROSION CONTROL MEASURES SHALL BE PROVIDED FOR THE STOCKPILE.

12. IF THE VOLUME, VELOCITY, SEDIMENT LOAD OR PEAK FLOW RATES OF STORM WATER RUNOFF ARE TEMPORARILY INCREASED DURING CONSTRUCTION, THEN PROPERTIES AND SPECIAL MANAGEMENT AREAS DOWNSTREAM FROM SUCH DEVELOPMENT SITES SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION.

13. STORM SEWER INLETS SHALL BE PROTECTED WITH SEDIMENT TRAPPING OR FILTER CONTROL DEVICES DURING CONSTRUCTION.

14. THE SURFACE OF STRIPPED AREAS SHALL BE PERMANENTLY OR TEMPORARILY PROTECTED FROM SOIL EROSION WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED, UNLESS A HALF INCH OR GREATER RAINFALL EVENT IS FORECAST PRIOR TO SEVEN DAYS. IN THIS OCCURRENCE, THE PROPER SOIL PROTECTION SHALL BE INSTALLED IMMEDIATELY. STRIPPED AREAS NOT AT FINAL GRADE THAT REMAIN UNDISTURBED FOR MORE THAN SEVEN DAYS AFTER INITIAL DISTURBANCE, SHALL BE PROTECTED FROM EROSION, UNLESS GRADING ACTIVITIES ARE RESUMED WITHIN 14 DAYS FROM WHEN ACTIVITIES CEASED. TEMPORARY COVER SHALL BE MAINTAINED CONTINUOUSLY UNTIL PERMANENT COVER IS ESTABLISHED.

15. WATER PUMPED OR OTHERWISE DISCHARGED FROM THE SITE DURING CONSTRUCTION DEWATERING, IRRIGATION OR FIRE HYDRANT FLUSHING, SHALL BE FILTERED PRIOR TO LEAVING THE PROJECT SITE.

16. IF NECESSARY, GRAVELED ROADS, ACCESS DRIVES, PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH AND VEHICLE WASHDOWN FACILITIES, SHALL BE PROVIDED TO PREVENT THE DEPOSIT AND TRACKING OF SOIL ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SOIL REACHING A PUBLIC OR PRIVATE ROADWAY SHALL BE REMOVED CONTINUOUSLY.

17. ALL CONTRACTORS SHALL COMPLY WITH SWPP PLAN AND NPDES REQUIREMENTS. A SIGNED SWPP PLAN SHALL BE KEPT ON FILE WITH OWNER OR GENERAL CONTRACTOR.

PAVEMENT

1. **FINE GRADING**

   A. PRIOR TO THE CONSTRUCTION OF CURB AND GUTTER AND PLACEMENT OF THE BASE MATERIAL, THE STREETS SHALL BE FINE GRADED TO WITHIN 0.05 FEET OF FINAL SUBGRADE ELEVATION, TO A POINT TWO FEET BEYOND THE BACK OF CURB.

2. **CURB AND GUTTER**

   A. THE TYPE OF THE CURB AND GUTTER SHALL BE AS DETAILED ON THE ENGINEERING PLANS.

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

   C. THE STONE COST UNDER THE CURB AND GUTTER SHALL BE CONSIDERED INCIDENTAL.

   D. DEPRESSED CURBS FOR DRIVEWAYS AND HANDICAPPED RAMPS SHALL BE INSTALLED PER THE PLANS AND IDOT STANDARDS.

3. **CONCRETE PAVEMENT**

   A. CONSTRUCTION JOINTS SHALL INCLUDE DOWELS PER "CONSTRUCTION JOINT TABLE" ALL DOWELS SHALL BE SMOOTH EPOXY COATED; GREASE ONE END.

   B. CONTRACTOR SHALL PROVIDE CONTRACTION JOINT 5' OFF OF FACE OF BUILDING.

   C. EXCEPT AT FIRST PANEL FROM THE FACE OF BUILDING, CONCRETE PANEL LENGTH SHALL NOT EXCEED ITS WIDTH BY MORE THAN 25%.

   D. CONTRACTION JOINTS SHALL BE CUT TO A DEPTH D/4 FOR CONVENTIONAL CONCRETE, OR D/3 FOR FIBER REINFORCED CONCRETE. WIDTH OF SAW-CUT SHALL BE PER JOINT SEALANT MATERIAL MANUFACTURER'S RECOMMENDATIONS.

   E. ALL JOINTS SHALL BE CAULKED
      -SIKASIL-728SL (SAWCUT JOINTS)
      -SIKAFLEX-1C/SL (EXPANSION JOINTS)
      -OR APPROVED EQUAL

   F. CURB & GUTTER WITHIN CONCRETE PAVEMENT AREAS SHALL BE MONOLITHICALLY POURED OR SHALL BE TIED TO THE FIRST PANEL.

DOWEL SIZE AND SPACING AT CONSTRUCTION JOINTS		
PAVEMENT DEPTH (INCH)	CONSTRUCTION JOINT DOWEL DIMENSIONS (INCH)	DOWEL SPACING C-C (INCH)
5 TO <6	3/4 x 10	12
6 TO <8	1 x 13	12
8 TO <10	1-1/4 x 15	12
10 TO 12	1-1/2 x 18	12

3. **PAVEMENT**

   A. THE PAVEMENT MATERIALS SHALL BE AS DETAILED ON THE ENGINEERING PLANS. DEPTHS SPECIFIED SHALL BE CONSIDERED THE MINIMUM COMPACTED THICKNESS.

4. **GENERAL**

   THE PAVING CONTRACTOR SHALL:

   A. REPAIR ANY BASE COURSE AND BINDER COURSE FAILURES PRIOR TO THE INSTALLATION OF THE FINAL BITUMINOUS CONCRETE SURFACE COURSE.

   B. SWEEP CLEAN THE BINDER COURSE PRIOR TO THE INSTALLATION OF THE FINAL BITUMINOUS CONCRETE SURFACE COURSE. ANY DAMAGE TO THE BINDER COURSE SHALL BE REPAIRED BY THE CONTRACTORS AT NO ADDITIONAL COST TO THE OWNER.

   D. PROVIDE CONSTRUCTION, EXPANSION AND CONTRACTION JOINTS FOR CURB AND GUTTER AND P.C.C. SIDEWALK PER IDOT STANDARDS AND MUNICIPAL STANDARDS.

   E. REMOVE ALL EXCESS MATERIALS AND DEBRIS. DISPOSE OF MATERIALS OFF-SITE AT NO ADDITIONAL COST TO THE OWNER.

5. **TESTING AND FINAL ACCEPTANCE**

   A. PRIOR TO THE PLACEMENT OF THE BASE COURSE, THE SUBGRADE MUST BE PROOF ROLLED AND INSPECTED FOR UNSUITABLE LOCATIONS. IF UNSUITABLE SUBGRADE IS ENCOUNTERED, IT SHALL BE REMOVED AND REPLACED WITH GRANULAR MATERIAL APPROVED BY THE OWNER OR HIS REPRESENTATIVE. THE SUBGRADE SHALL HAVE A MINIMUM IBR VALUE OF 3.0.

   B. PRIOR TO PLACEMENT OF THE BITUMINOUS CONCRETE SURFACE COURSE, THE CONTRACTOR SHALL OBTAIN SPECIMENS OF THE BINDER COURSE WITH A CORE DRILL WHERE DIRECTED AND AS REQUIRED. THICKNESS VERIFICATION WILL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION."

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

6. **METHOD OF MEASUREMENT**

   A. CURB AND GUTTER AND BASE COURSE SHALL BE MEASURED IN THE FIELD BY THE CONTRACTOR. THE QUANTITIES SHALL BE SUBMITTED TO THE ENGINEER FOR VERIFICATION WHEN REQUESTED BY THE OWNER.

   B. WHEN REQUESTED BY THE OWNER, DOCUMENTATION FOR THE INSTALLED BASE COURSE, BITUMINOUS CONCRETE BINDER AND SURFACE COURSE, SHALL BE SUBMITTED TO THE ENGINEER FOR VERIFICATION AS REQUIRED BY THE MUNICIPALITY. WHERE DIRECTED, THE CONTRACTOR SHALL OBTAIN SPECIMENS OF THE BITUMINOUS CONCRETE WITH A CORE DRILL TO CONFIRM THE PLAN THICKNESS. DEFICIENCIES IN THICKNESS SHALL BE ADJUSTED BY THE METHOD DESCRIBED IN THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION."

7. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE PROPER BARRICADING, WARNING DEVICES AND SAFE TRAFFIC MANAGEMENT WITHIN THE AREA OF CONSTRUCTION. ALL SUCH DEVICES AND THEIR INSTALLATION SHALL CONFORM TO THE ILLINOIS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS," LATEST EDITION. THIS SHALL BE IN ACCORDANCE WITH THE SUBDIVISION CONTROL ORDINANCE OF THE MUNICIPALITY.

8. **LONGITUDINAL JOINT CONSTRUCTION**

   A. AS MANY LONGITUDINAL JOINTS AS PRACTICAL SHALL BE CLOSED AT THE END OF EACH DAY OF PAVING. A TACK COAT SHALL BE APPLIED TO THE "COLD" SIDE OF THE LONGITUDINAL JOINT PRIOR TO THE PLACEMENT OF THE HOT SIDE MAT.

   B. LONGITUDINAL JOINT CONSTRUCTION SHALL BE COMPLETED BEFORE THE "COLD" SIDE OF THE JOINT FALLS BELOW 200°F.

   C. IN THE EVENT THE TEMPERATURE OF THE "COLD" SIDE OF A JOINT FALLS BELOW 200°F PRIOR TO JOINT CONSTRUCTION COMPLETION, THE CONTRACTOR SHALL PERFORM THE FOLLOWING:
      1. HEAT THE COLD SIDE JOINT TO 200°F EITHER BY MEANS OF A HAND TORCH OR AN INFRARED HEATER. THE CONTRACTOR SHALL AVOID BURNING THE ASPHALT DURING REHEATING.
      2. APPLY TACK COAT TO THE REHEATED JOINT PRIOR TO ASPHALT PLACEMENT.

   D. THE CONTRACTOR SHALL OFFSET SURFACE COURSE JOINTS FROM BINDER COURSE JOINTS, WHEREVER PRACTICABLE.

9. **LONGITUDINAL JOINT DENSITY SPECIFICATIONS**

   A. COMPLETED LONGITUDINAL JOINTS SHALL BE ASSESSED BASED ON SECTION 1030 OF THE STANDARD SPECIFICATIONS AND THE "HOT MIX ASPHALT – DENSITY TESTING OF LONGITUDINAL JOINTS" (BDE) AS FOLLOWS:

   LONGITUDINAL JOINT DENSITY TESTING SHALL BE PERFORMED AT EACH RANDOM DENSITY TEST LOCATION. LONGITUDINAL JOINT TESTING SHALL BE LOCATED AT A DISTANCE EQUAL TO THE LIFT THICKNESS OR A MINIMUM OF TWO INCHES FROM EACH PAVEMENT EDGE; I.E. FOR A FOUR INCH LIFT, THE NEAR EDGE OF THE DENSITY GAUGE OR CORE BARREL SHALL BE WITHIN FOUR INCHES FROM THE EDGE OF PAVEMENT. LONGITUDINAL JOINT DENSITY TESTING SHALL BE PERFORMED USING EITHER A CORRELATED NUCLEAR GAUGE OR CORES.

   1. CONFINED EDGE: EACH CONFINED EDGE DENSITY TEST SHALL BE REPRESENTED BY A ONE MINUTE NUCLEAR DENSITY READING OR A CORE DENSITY. THE TESTING SHALL BE INCLUDED IN THE AVERAGE OF DENSITY READINGS OR CORE DENSITIES TAKEN ACROSS THE MAT, WHICH REPRESENTS THE INDIVIDUAL TEST.

   2. UNCONFINED EDGE: EACH UNCONFINED EDGE JOINT DENSITY TEST SHALL BE REPRESENTED BY AN AVERAGE OF THREE, ONE MINUTE DENSITY READINGS OR A SINGLE CORE DENSITY AT THE GIVEN DENSITY TEST LOCATION. THE TESTING SHALL MEET THE DENSITY REQUIREMENTS SPECIFIED HEREIN. THE THREE, ONE MINUTE READINGS SHALL BE SPACED TEN FEET APART LONGITUDINALLY ALONG THE UNCONFINED PAVEMENT EDGE AND CENTERED AT THE RANDOM DENSITY TEST LOCATION.

DENSITY CONTROL LIMITS TABLE

MIXTURE COMPOSITION	PARAMETER	INDIVIDUAL TEST (INCLUDES CONFINED EDGES)	UNCONFINED EDGE JOINT DENSITY MINIMUM
IL-9.5, IL12.5	Ndesign >= 90	92.0-96.0%	90%
IL-9.5, IL9.5L, IL-12.5	Ndesign < 90	92.5-97.4%	90%
IL-19.0, IL-25.0	Ndesign >= 90	93.0-96.0%	90%
IL-19.0, IL-19.0L, IL-25.0	Ndesign < 90	93.0-97.4%	90%
SMA	Ndesign = 50 & 80	93.5-97.4%	91%
ALL OTHER	Ndesign = 30	93.0-97.4%	90%

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WATER MAIN

1. ALL WATERMAIN COMPONENTS THAT COME INTO CONTACT WITH POTABLE WATER, INCLUDING BUT NOT LIMITED TO PIPES, COATINGS, JOINTS, FITTINGS, VALVES, AND APPURTENANCES, SHALL BE NSF 61 APPROVED.

2. WATER MAINS SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP), CLASS 52, CONFORMING TO AWWA C-151 (ANSI A-21.51) WITH CEMENT MORTAR LINING AND BITUMINOUS SEAL COATING, CONFORMING TO ANSI-A-21.4 (AWWA C-104). ALL WATER MAIN SHALL BE POLYETHYLENE ENCASED. THE POLYETHYLENE MATERIAL SHALL BE IN CONFORMANCE WITH THE MUNICIPAL REGULATIONS.

3. THE JOINTS SHALL BE PUSH-ON JOINTS CONFORMING TO ANSI A-21.11 (AWWA C-111) AND ALL RETAINING GLANDS SHALL BE SET SCREW OR MEGA-LUG TYPE. WATER MAIN FITTINGS SHALL BE OF DUCTILE IRON WITH CEMENT MORTAR LINING AND SEAL COATING WITH PUSH-ON JOINTS, CONFORMING TO ANSI A21.10 (AWWA C-110).

4. THRUST BLOCKING OR RESTRAINED JOINTS SHALL BE INSTALLED ON ALL WATER MAINS AT ALL BENDS, TEES, ELBOWS, ETC.

5. DISTRIBUTION SYSTEM VALVES SHALL BE RESILIENT SEAT VALVE, CONFORMING TO AWWA C-509, LATEST STANDARDS AND SHALL BE APPROVED BY THE MUNICIPALITY. EACH VALVE SHALL BE INSTALLED IN A VALVE VAULT OR BOX OF SIZE SHOWN ON THE PLANS. THE LIDS SHALL BE NEENAH R-1713-B OR APPROVED EQUAL. LETTERING ON THE CAST IRON FRAME AND LID SHALL INDICATE "WATER" AND THE MUNICIPALITY NAME.

6. A MINIMUM DEPTH OF COVER OF 5'-6" SHALL BE MAINTAINED OVER THE WATER LINES.

7. ALL WATER MAINS SHALL BE PRESSURE TESTED, FLUSHED AND DISINFECTED IN ACCORDANCE WITH AWWA SPECIFICATIONS. EACH VALVE SECTION SHALL BE PRESSURE TESTED FOR A MINIMUM OF FOUR HOURS. THE ONLY ALLOWABLE LEAKAGE IS AS PREDETERMINED BY THE STANDARD SPECIFICATIONS FOR SEWER AND WATER MAIN CONSTRUCTION IN ILLINOIS. AT NO TIME IS THERE TO BE ANY VISIBLE LEAKAGE FROM THE MAIN.

8. FIRE HYDRANTS SHALL BE INSTALLED WITH AN AUXILIARY VALVE WITH CAST IRON VALVE BOX. FIRE HYDRANTS SHALL CONFORM TO MEET ALL REQUIREMENTS DESCRIBED IN THE SUBDIVISION CONTROL ORDINANCE OF THE MUNICIPALITY. THE HYDRANT SHALL FACE THE ROADWAY. THE FIRE HYDRANTS SHALL BE PAINTED PER THE MUNICIPALITY. THE VALVE BOX LID SHALL HAVE WORD "WATER" EMBOSSED ON THE LID.

9. MAXIMUM DEFLECTION AT PIPE JOINTS SHALL BE IN ACCORDANCE WITH CURRENT MANUFACTURER'S RECOMMENDATIONS AND AWWA SPECIFICATIONS.

10. BEDDING, HAUNCHING, AND INITIAL BACKFILL FOR NEW WATER MAINS SHALL CONSIST OF COMPACTED CRUSHED GRAVEL OR STONE. BEDDING MATERIAL DEPTH SHALL BE A MINIMUM OF FOUR INCHES BELOW PIPE AND INITIAL BACKFILL DEPTH SHALL BE 6" ABOVE PIPE, OR AS REQUIRED BY THE MUNICIPALITY.

11. IEPA WATER MAIN PROTECTION

    A. WATER MAINS:

    1. HORIZONTAL SEPARATION:

       a) WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED DRAIN, STORM SEWER, SANITARY SEWER OR SEWER SERVICES CONNECTION.

       b) WATER MAINS MAY BE LAID CLOSER THAN 10 FEET TO A SEWER LINE WHEN:

          1) LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET

          2) THE WATER MAIN INVERT IS AT LEAST 18 INCHES ABOVE THE CROWN OF THE SEWER

          3) THE WATER MAIN IS IN A SEPARATE TRENCH.

       c) BOTH THE WATER MAIN AND DRAIN OR SEWER SHALL BE CONSTRUCTED OF PIPE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION WHEN IT IS IMPOSSIBLE TO MEET CONDITION (a) OR (b) ABOVE. THE DRAIN OR SEWER SHALL BE PRESSURE TESTED TO THE MAXIMUM EXPECTED SURCHARGE HEAD BEFORE BACKFILLING.

    2. VERTICAL SEPARATION:

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

       b) IF IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED IN (a) OR THE WATER MAIN PASSES UNDER A SEWER OR DRAIN, THEN ONE OF THE FOLLOWING METHODS SHALL BE FOLLOWED:

          1) THE STORM DRAIN SHALL BE CONSTRUCTED OF "O" RING JOINTS AND SANITARY SEWER SHALL BE CONSTRUCTED WITH PIPE EQUIVALENT TO WATER MAIN STANDARDS.

          2) THE WATER MAIN MAY BE ENCASED IN A WATERTIGHT CARRIER PIPE AS INDICATED ON THE PLANS AND AS PER THE SPECIAL CROSSING DETAIL SHOWN ON THE DETAIL SHEET.

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

       d) CONSTRUCTION SHALL EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE NORMAL DISTANCE FROM THE WATER MAIN TO THE SEWER OR DRAIN LINE IS AT LEAST 10 FEET.

NOTE: IF SPECIFICATIONS AND/OR DETAILS PROVIDED IN THESE PLANS CONFLICT WITH THE CITY OF NAPERVILLE SPECIFICATIONS AND/OR DETAILS, THE CITY OF NAPERVILLE SHALL SUPERCEDE.

No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

GENERAL NOTES AND SPECIFICATIONS
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NAPERVILLE, ILLINOIS
KARIS CRITICAL

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CITY OF NAPERVILLE GEOMETRIC & PAVING NOTES

1. THE DEVELOPER AND CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO ADEQUATELY PROTECT THE PAVEMENT AND PROPERTY, CURB AND GUTTER AND OTHER RIGHT-OF-WAY IMPROVEMENTS, WHETHER NEWLY CONSTRUCTED OR EXISTING, FROM ANY AND ALL DAMAGE. SUFFICIENT MEANS SHALL BE EMPLOYED BY THE CONTRACTOR TO PROTECT AGAINST SUCH DAMAGE TO THE SATISFACTION OF THE CITY ENGINEER.
2. ANY NEW OR EXISTING IMPROVEMENTS THAT ARE DAMAGED SHALL BE REPAIRED OR REPLACED IN A MANNER THAT IS SATISFACTORY TO THE CITY ENGINEER.
3. THE CONTRACTOR AND/OR DEVELOPER SHALL SECURE ALL NECESSARY RIGHTS AND PERMISSIONS TO PERFORM ANY WORK ON PRIVATE PROPERTY NOT WITHIN THE OWNERSHIP RIGHTS OF THE DEVELOPER. THE DEVELOPER SHALL BEAR THE SOLE RESPONSIBILITY FOR DAMAGES THAT MAY OCCUR AS A RESULT OF WORK PERFORMED UNDER CONTRACTS THEY INITIATE.
4. THE CONTRACTOR/DEVELOPER WILL BE RESPONSIBLE FOR BRINGING PAVEMENTS (STREET, CURB AND GUTTER, SIDEWALK, DRIVEWAY) ON THE PROPERTY UP TO CITY STANDARDS INCLUDING ANY REPAIRS TO SUBSTANDARD PAVEMENTS THAT EXISTED PRIOR TO OR OCCURRED DURING CONSTRUCTION.
5. WHEREVER NEW WORK WILL MEET EXISTING CONDITIONS OTHER THAN LAWN AREAS, REGARDLESS OF WHETHER THE NEW OR EXISTING WORK IS ASPHALT OR CONCRETE, THE EXISTING ADJACENT SIDEWALK, DRIVEWAYS, PAVEMENT OR CURB SHALL BE NEATLY SAW CUT. THE SAW CUT SHALL BE IN A NEAT STRAIGHT LINE SUFFICIENTLY DEEP SO THAT IT RENDERS A SMOOTH VERTICAL FACE TO MATCH TO. IF THE CONTRACTOR IS NOT CAREFUL OR DOES NOT SAW DEEP ENOUGH AND THE CUT LINE BREAKS OUT OR CHIPS TO AN IMPERFECT EDGE, THEN THE EXISTING SIDE MUST BE RE-CUT SQUARE AND DONE OVER UNTIL IT IS CORRECT.

CITY OF NAPERVILLE TRAFFIC CONTROL & PROTECTION NOTES

1. ALL DEVELOPERS AND CONTRACTORS SHALL PROVIDE SUITABLE TRAFFIC CONTROL FOR THEIR CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH PART 6 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. TRAFFIC CONTROL MUST BE PROVIDED FOR ANY ACTIVITY THAT IMPACTS TRAFFIC FLOW. THIS INCLUDES, BUT IS NOT LIMITED TO, ROAD CLOSURES REQUIRING DETOURS, DAILY LANE CLOSURES, LONG TERM LANE CLOSURES, NARROW LANES, AND CONSTRUCTION VEHICLES ENTERING AND EXITING THE PUBLIC ROADWAY. ALL TRAFFIC CONTROL SET-UPS MAY BE INSPECTED BY THE CITY OF NAPERVILLE TO ENSURE THAT THEY ARE PROVIDING POSITIVE GUIDANCE TO MOTORISTS AND ARE NOT IN THEMSELVES PRESENTING A HAZARDOUS SITUATION. A REPRESENTATIVE OF THE DEVELOPER OR CONTRACTOR MUST PROVIDE PHONE NUMBERS AT WHICH THEY CAN BE REACHED 24 HOURS A DAY AND ON WEEKENDS SO THAT THEY CAN MAINTAIN TRAFFIC CONTROL DEVICES.
2. PEDESTRIANS MUST BE PROVIDED WITH A SAFE ALTERNATE ROUTE IF PEDESTRIAN FACILITIES ARE TO BE CLOSED AS A RESULT OF CONSTRUCTION ACTIVITIES. GUIDANCE MUST BE PROVIDED TO PEDESTRIANS SO THAT THEY MAY AVOID THE WORK ZONE. SAID PEDESTRIAN DETOUR PLAN (WITH SIGNAGE) IS TO BE REVIEWED AND ACCEPTED BY THE CITY IN WRITING, PRIOR TO THE COMMENCEMENT OF THE WORK.
3. THE CONTRACTOR SHALL EMPLOY THE APPROPRIATE METHODS OF TRAFFIC CONTROL IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, SUCH THAT THE SAFETY OF VEHICLES, AND PEDESTRIANS IS PRESERVED AT ALL TIMES. THE ERECTION AND MAINTENANCE OF THE TRAFFIC CONTROL DEVICES SHALL BE TO THE SATISFACTION OF THE AGENCY OF JURISDICTION AND THE CITY ENGINEER.
4. ANY TEMPORARY OPEN HOLES SHOULD BE BARRICADED AND PROTECTED IN ACCORDANCE WITH APPLICABLE STANDARDS.
5. LANE CLOSURES ON ARTERIAL ROADWAYS WITHIN THE CITY OF NAPERVILLE ARE NOT PERMITTED BETWEEN THE HOURS OF 6 AM – 9 AM AND 3 PM – 7 PM MONDAY THROUGH FRIDAY, UNLESS OTHERWISE PERMITTED BY THE CITY ENGINEER. LANE CLOSURES ON ARTERIAL STREETS ARE PERMITTED BETWEEN 7 AM AND 7 PM ON WEEKENDS, UNLESS OTHERWISE PERMITTED BY THE CITY ENGINEER. ARTERIAL ROADWAYS ARE DEFINED AS BOTH MAJOR AND MINOR ARTERIAL ROADWAYS AS DESIGNATED ON THE CITY'S MASTER THOROUGHFARE PLAN, LATEST EDITION.
6. ANY WORK THAT IMPACTS A TRAFFIC LANE ON AN ARTERIAL ROADWAY REQUIRES AN ARROWBOARD AS PART OF THE TRAFFIC CONTROL.
7. AT THE END OF EACH DAY OF WORK, THE ROADWAY MUST BE COMPLETELY REOPENED TO TRAFFIC. ANY OPEN HOLES MUST BE PLATED OR COLD PATCHED; THE CITY WILL NOT ALLOW THE HOLES TO BE FILLED WITH GRAVEL.

CITY OF NAPERVILLE EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL MAINTAIN PROPER DRAINAGE AT ALL TIMES DURING THE COURSE OF CONSTRUCTION AND PREVENT STORM WATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS.
2. DURING EXTENDED DRY PERIODS, THE CONSTRUCTION AREA(S) MAY NEED TO BE WATERED DOWN TO PREVENT THE BLOWING OF SOIL FROM THE SITE.
3. DURING CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE UTILIZED TO MINIMIZE THE TRACKING OF DIRT ONTO THE PUBLIC STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO KEEP PUBLIC STREET PAVEMENT CLEAN OF DIRT AND DEBRIS. ANY DIRT THAT IS TRACKED ONTO THE PUBLIC STREETS SHALL BE REMOVED THE SAME DAY. IF THE AMOUNT TRACKED ON THE PUBLIC STREET IS EXCESSIVE, CLEANING MAY BE REQUIRED MORE FREQUENTLY.
4. ALL EROSION CONTROL MEASURES SHALL BE PROPERLY INSTALLED, AS PERMITTED, PRIOR TO ANY LAND DISTURBANCE ACTIVITIES. ALL EROSION CONTROL SHALL BE MAINTAINED UNTIL TURF IS ESTABLISHED.
5. ACCEPTABLE PERIMETER EROSION CONTROL INCLUDES SILT FENCE, SILT WORM AND ANY OTHER APPLICATION APPROVED BY THE CITY ENGINEER.
6. ALL OPEN GRATE STRUCTURES SHALL HAVE EROSION CONTROL PROTECTION IN ACCORDANCE WITH THE APPROVED EROSION CONTROL PLANS. INLET BASKETS ARE THE PREFERRED METHOD; STRAW BALES SHALL NOT BE USED.
7. STOCKPILES NOT BEING DISTURBED FOR MORE THAN 14 DAYS SHALL BE SEEDED.
8. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY, AFTER ANY 0.5 INCH RAINFALL, OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN THEIR FUNCTION.
9. IT IS THE RESPONSIBILITY OF THE OWNER OR HIS DESIGNEE TO INSPECT ALL TEMPORARY EROSION CONTROL MEASURES PER THE REQUIREMENTS OF THE NPDES PERMIT AND CORRECT ANY DEFICIENCIES AS NEEDED.

CITY OF NAPERVILLE STORM SEWER NOTES

1. NO CONNECTION TO AN EXISTING PUBLIC STORM SEWER MAY BE MADE WITHOUT PERMISSION OF THE CITY ENGINEER.
2. THE CONTRACTOR SHALL REPAIR ANY EXISTING FIELD DRAINAGE TILE DAMAGED DURING CONSTRUCTION AND PROPERLY REROUTE AND/OR CONNECT SAID TILE TO THE NEAREST STORM SEWER OUTLET. ALL LOCATIONS OF ENCOUNTERED FIELD DRAINAGE TILE SHALL BE PROPERLY INDICATED ON THE CONTRACTOR'S RECORD DRAWINGS.
3. THE FOLLOWING MATERIALS ARE PERMITTED FOR STORM SEWER AND PIPE CULVERTS. WHERE A PARTICULAR MATERIAL IS SPECIFIED IN THE PLANS OR SPECIAL PROVISIONS, NO OTHER KIND OF MATERIAL WILL BE PERMITTED:
   - 3.a. REINFORCED CONCRETE PIPE (RCP) – REINFORCED CONCRETE PIPE SHALL CONFORM TO ASTM DESIGNATION C 76, CLASSES I, II, III, IV OR V. BITUMINOUS JOINTS SHALL CONFORM TO ASTM DESIGNATIONS C 14 OR C 76 AS MAY BE APPLICABLE. BITUMINOUS MATERIAL SHALL CONSIST OF A HOMOGENEOUS BLEND OF BITUMEN, INERT FILLER, AND SUITABLE SOLVENT APPROVED BY THE CITY ENGINEER. RUBBER GASKET JOINTS SHALL CONFORM TO ASTM C 433. REINFORCED CONCRETE PIPE SHALL ALSO BE PERMITTED AS ROUND, ELLIPTICAL, OR BOX SHAPED OR AS REINFORCED CONCRETE ARCH CULVERT.
4. BEDDING, OTHER THAN CONCRETE EMBEDMENT, SHALL CONSIST OF GRAVEL, CRUSHED GRAVEL, OR CRUSHED STONE 1/4 INCH TO 1 INCH IN SIZE. AS A MINIMUM, THE MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF IDOT STANDARD SPECIFICATIONS. THE GRADATION SHALL CONFORM TO GRADATION CA-7 OR CA-11 OF THE STANDARD SPECIFICATIONS.
5. BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF IDOT STANDARD SPECIFICATIONS. THE GRADATION SHALL CONFORM TO GRADATION CA-6 OF THE STANDARD SPECIFICATIONS. BACKFILL MATERIAL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
6. JOINTS CONNECTING DISSIMILAR PIPE MATERIALS SHALL BE MADE WITH SEWER CLAMP NON-SHEAR TYPE COUPLINGS; CASCADE CSS, ROMAC LSS, FERNCO, INC. SHEAR RING, OR APPROVED EQUAL. WHEN AVAILABLE, A STANDARD JOINT WITH A TRANSITION GASKET MAY BE USED. THE NAME OF THE MANUFACTURER, CLASS, AND DATE OF ISSUE SHALL BE CLEARLY IDENTIFIED ON ALL SECTIONS OF PIPE. THE CONTRACTOR SHALL ALSO SUBMIT BILLS OF LADING, OR OTHER QUALITY ASSURANCE DOCUMENTATION WHEN REQUESTED BY THE CITY ENGINEER. ALL NUTS AND BOLTS FOR COUPLINGS SHALL BE STAINLESS STEEL.
7. MANHOLES FOR STORM SEWERS SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES AND SHALL BE CONSTRUCTED OF PRECAST CONCRETE UNITS IN ACCORDANCE WITH ASTM C478-05 (OR LATEST EDITION) AND SHALL CONFORM TO THE CITY OF NAPERVILLE STANDARD DETAIL. ALL MANHOLES SHALL BE WATER-TIGHT. ALL VISIBLE LEAKS SHALL BE SEALED IN A MANNER ACCEPTABLE TO THE CITY ENGINEER.
8. MANHOLES SHALL BE FURNISHED WITH A SELF-SEALING FRAME AND SOLID COVER (EAST JORDAN IRON WORKS 1022 WITH TYPE A SOLID COVER, OR APPROVED EQUAL) WITH THE WORD "STORM" IMPRINTED ON THE COVER IN RAISED LETTERS. ALL FRAMES AND LIDS SHALL MEET OR EXCEED AASHTO H-20 LOADING SPECIFICATIONS. FRAMES SHALL BE SHOP PAINTED WITH ASPHALTIC BASE PAINT. BOTH THE MANHOLE FRAME AND COVER SHALL HAVE MACHINED HORIZONTAL AND VERTICAL BEARING SURFACES. INVERTED MANHOLE FRAMES ARE NOT ALLOWED. PICK HOLES SHALL NOT CREATE OPENINGS IN THE MANHOLE COVER.
9. MANHOLE STEPS ON MAXIMUM 16 INCH CENTER SHALL BE FURNISHED WITH EACH MANHOLE, SECURELY ANCHORED IN PLACE, TRUE TO VERTICAL ALIGNMENT, IN ACCORDANCE WITH THE NAPERVILLE STANDARD DETAILS. STEPS SHALL BE COPOLYMER POLYPROPYLENE REINFORCED WITH 1/2 INCH A615/A615M-05A (OR LATEST EDITION) GRADE 60 STEEL REINFORCEMENT, MEETING OR EXCEEDING ASTM C 478-05 (OR LATEST EDITION) AND OSHA STANDARDS.
10. CATCH BASINS AND INLETS SHALL HAVE A MINIMUM INSIDE DIAMETER OF 24 INCHES AND SHALL BE CONSTRUCTED OF PRECAST CONCRETE UNITS IN ACCORDANCE WITH ASTM C478-05 (OR LATEST EDITION) AND SHALL CONFORM TO THE CITY OF NAPERVILLE STANDARD DETAIL. ALL CATCH BASINS AND INLETS SHALL BE WATER-TIGHT AT ALL POINTS BELOW GRADE. ALL VISIBLE LEAKS SHALL BE SEALED IN A MANNER ACCEPTABLE TO THE CITY ENGINEER. CATCH BASINS AND INLETS SHALL BE FURNISHED WITH A FRAME AND GRATE BASED UPON THE LOCATION OF THE INSTALLATION AS LISTED BELOW. ALL FRAMES AND GRATES SHALL MEET OR EXCEED AASHTO H-20 LOADING SPECIFICATIONS. FRAMES SHALL BE SHOP PAINTED WITH ASPHALTIC BASE PAINT.
   - 10.a. PAVEMENT: EAST JORDAN IRON WORKS 1022 FRAME WITH TYPE M1 RADIAL FLAT GRATE, OR APPROVED EQUAL.
   - 10.b. BARRIER CURB AND GUTTER: EAST JORDAN IRON WORKS 7220 FRAME WITH TYPE M1 GRATE AND T1 CURB BOX, OR APPROVED EQUAL.
   - 10.c. DEPRESSED CURB: EAST JORDAN IRON WORKS 5120 FRAME AND GRATE, OR APPROVED EQUAL.
   - 10.d. MOUNTABLE CURB: EAST JORDAN IRON WORKS 7525 FRAME AND GRATE, OR APPROVED EQUAL.
   - 10.e. NON-PAVED AREAS: EAST JORDAN IRON WORKS 6527 BEEHIVE GRATE, OR APPROVED EQUAL. ALTERNATELY IN AREAS WHERE THERE IS THE LIKELIHOOD OF PEDESTRIAN TRAFFIC, EAST JORDAN IRON WORKS 1022 FRAME WITH TYPE M1 RADIAL FLAT GRATE, OR APPROVED EQUAL MAY BE USED.
11. THE STEEL CASING PIPE SHALL BE BITUMINOUS COATED, A MINIMUM OF 30 MILS THICKNESS INSIDE AND OUT, AND SHALL BE OF LEAK PROOF CONSTRUCTION, CAPABLE OF WITHSTANDING THE ANTICIPATED LOADINGS. SEE TABLE 200-1 IN THE NAPERVILLE STANDARD SPECIFICATIONS FOR THE MINIMUM WALL THICKNESSES OF VARIOUS STEEL CASING DIAMETERS. THE STEEL CASING PIPE SHALL HAVE MINIMUM YIELD STRENGTH OF 35,000 PSI AND SHALL MEET THE REQUIREMENTS OF A139/A139M-04 (OR LATEST EDITION), GRADE B. RING DEFLECTION SHALL NOT EXCEED 2% OF THE NOMINAL DIAMETER. THE STEEL CASING PIPE SHALL BE DELIVERED TO THE JOBSITE WITH BEVELED ENDS TO FACILITATE FIELD WELDING.
12. ALL PIPE SHALL BE LAID TRUE TO LINE AND GRADE. DIRT AND OTHER FOREIGN MATERIAL SHALL BE PREVENTED FROM ENTERING THE PIPE OR PIPE JOINT DURING HANDLING OR LAYING OPERATIONS. ALL STORM SEWER PIPE TO PIPE CONNECTIONS SHALL BE SEALED WITH BUTYL MASTIC TO ENSURE WATER TIGHTNESS. LIFT HOLES TO BE SEALED USING BUTYL MASTIC AND CONCRETE PLUGS. AT NO TIME SHALL CONNECTIONS BETWEEN THE TWORM SEWER AND SANITARY SEWER BE ALLOWED.
13. FOR STRUCTURES LOCATED IN PAVED AREAS, A MINIMUM OF FOUR, 2-INCH DIAMETER HOLES SHALL BE DRILLED OR PRECAST INTO THE STRUCTURE WITHIN 1 FOOT OF THE LOWEST PIPE INVERT. THE HOLES SHALL BE DISTRIBUTED EQUIDISTANT AROUND THE PERIMETER OF THE STRUCTURE. A 1-FOOT BY 1-FOOT SECTION OF UNDERDRAIN FILTER CLOTH MATERIAL SHALL BE SUFFICIENTLY FIXED TO THE OUTSIDE OF THE MANHOLE WITH MASTIC MATERIAL TO PREVENT SLIPPAGE DURING BACKFILLING.
14. ALL STORM SEWER STRUCTURE FRAMES WITHOUT INSIDE FLANGES SHALL BE SHAPED WITH NON-SHRINKING HYDRAULIC CEMENT TO FORM A FILLET TO THE STRUCTURE OR ADJUSTING RING. WHEN ADJUSTMENTS ARE NECESSARY, ALL RINGS SHALL BE HIGH DENSITY POLYETHYLENE PLASTIC (HDPE), RECYCLED RUBBER, HIGH DENSITY EXPANDING POLYSTYRENE, EXPANDED POLYPROPYLENE (EPP) OR OTHER MATERIAL APPROVED BY THE CITY ENGINEER. PRECAST CONCRETE RINGS, BRICKS, ROCKS, SHIMS, OR CONCRETE BLOCKS WILL NOT BE ALLOWED. THE MAXIMUM HEIGHT OF ADJUSTMENTS SHALL BE 12 INCHES.

CITY OF NAPERVILLE WATER UTILITIES GENERAL NOTES

a. NEW WATER MAIN VALVES, INCLUDING PRESSURE TAP VALVES, ADJACENT TO AN EXISTING WATER MAIN, AND EXISTING WATER MAIN VALVES SHALL ONLY BE OPERATED BY THE CITY OF NAPERVILLE, DEPARTMENT OF PUBLIC UTILITIES CEE/CM DIVISION PERSONNEL WITH 48-HOUR NOTICE (MONDAY-FRIDAY). CONTACT NAPERVILLE TED BUSINESS GROUP AT 630-420-6082 FOR SCHEDULING.

b. ANY EXISTING UTILITY STRUCTURES REQUIRING ADJUSTMENT OR RECONSTRUCTION SHALL BE COMPLETED BY THE CONTRACTOR TO THE SATISFACTION OF THE UTILITY OWNER. ADJUSTMENTS AND/OR RECONSTRUCTIONS NOT CALLED FOR ON THE PLANS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. NO MORE THAN A TOTAL OF 12 INCHES OF ADJUSTING RINGS AND/OR 2 ADJUSTING RINGS SHALL BE ALLOWED. ALL STRUCTURE FRAMES SHALL BE FLUSH WITH FINAL GRADE.

c. TREES SHALL BE INSTALLED A MINIMUM OF FIVE (5) FEET HORIZONTALLY FROM UNDERGROUND ELECTRICAL FEEDERS, SANITARY SEWERS, SANITARY SERVICES, WATER MAINS, AND WATER SERVICES. TREES SHALL BE INSTALLED A MINIMUM OF TEN (10) FEET HORIZONTALLY FROM UTILITY STRUCTURES AND APPURTENANCES, INCLUDING, BUT NOT LIMITED TO, MANHOLES, VALVE VAULTS, VALVE BOXES AND FIRE HYDRANTS. NO TREES, SHRUBS OR OBSTACLES WILL BE ALLOWED 10' IN FRONT OF, 5' ON THE SIDES, AND 7' TO THE REAR OF THE ELECTRICAL TRANSFORMER.

d. ALL RETAINER GLANDS WHEN REQUIRED TO RESTRAIN VALVES, FITTINGS, HYDRANTS, AND PIPE JOINTS SHALL BE MECHANICAL JOINT WEDGE ACTION TYPE MEGALUG 1100 SERIES AS MANUFACTURED BY EBBA IRON, INC. OR UNI-FLANGE BLOCKBUSTER 1400 SERIES AS MANUFACTURED BY FORD METER BOX CO. AND SHALL BE FOR USE ON DUCTILE IRON PIPE CONFORMING TO ANSI/AWWA C151/A21.51, FOR NOMINAL PIPE SIZES 3" THROUGH 48".

e. EXISTING DUCTILE IRON SYSTEMS FOR RESTRAINING PUSH-ON PIPE BELLS SHALL BE MEGALUG SERIES 1100HD OR FORD SERIES 1390.

f. EXISTING DUCTILE IRON SYSTEMS REQUIRING RESTRAINT SHALL BE MEGALUG SERIES 1100SD (SPLIT MEGALUG) FOR MECHANICAL JOINTS.

g. DUCTILE IRON WATER MAIN TO BE CLASS 52. ALL DUCTILE IRON PIPE IS TO BE ENCASED IN POLYETHYLENE FILM POLYETHYLENE ENCASEMENT TO BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C105/A21.5-05.

h. A SET OF AS-BUILT RECORD DRAWING SHALL BE GIVEN TO THE CITY OF NAPERVILLE UPON COMPLETION OF IMPROVEMENTS SHOWING THE ELEVATION AND LOCATION (TIED TO TWO POINTS) OF ALL NEW AND EXISTING STRUCTURES INCLUDING FIRE HYDRANTS, VALVE BOXES AND VAULTS, LINESTOP SLEEVES, WATER SERVICE CORPORATION STOPS, WATER MAIN FITTINGS/BENDS, MANHOLES, SANITARY SERVICE WYES (MEASURED FROM DOWNSTREAM MANHOLE), AND ABANDONED WATER OR SANITARY SERVICE LINES. ALL ELEVATIONS SHOULD BE REFERENCED TO THE SAME BENCHMARK DATUM AS THE ORIGINAL DESIGN PLANS. HORIZONTAL TIES SHALL BE REFERENCED TO LOT LINES, BACK OF CURB, OR PROPERTY CORNERS.

i. ALL SANITARY SEWER PIPING SHALL BE PVC PIPE MEETING THE REQUIREMENTS OF ASTM D-2241 WITH JOINTS CONFORMING TO ASTM D-3139. ALL SANITARY SEWER FITTINGS SHALL BE PVC MEETING THE FOLLOWING REQUIREMENTS: 4" TO 12" SHALL BE INJECTION MOLDED FITTINGS MEETING ASTM D-2241. GREATER THAN 12" SHALL BE FABRICATED FITTINGS MEETING ASTM D-2241 OR C905. MINIMUM PRESSURE RATING SHALL BE 150 PSI.

j. THE VALVES LESS THAN 16" SHALL BE STANDARD PATTERN, GATE VALVES AND SHALL HAVE THE NAME OR MARK OF THE MANUFACTURER, SIZE AND WORKING PRESSURE PLAINLY CAST IN RAISED LETTERS ON THE VALVE BODY. VALVES MAY BE APPROVED FROM ONE OF THE FOLLOWING MANUFACTURERS: AMERICAN, CLOW, WATEROUS OR KENNEDY.

k. STAINLESS STEEL NUTS, BOLTS/T-BOLTS, AND WASHERS, TYPE 304 OR BETTER, WILL BE REQUIRED ON ALL WATER MAIN INSTALLATIONS. THIS WOULD APPLY TO HYDRANTS, TAPPING SLEEVES, VALVES, FITTINGS, RESTRAINT, AND OTHER APPURTENANCES BURIED OR IN VALVE VAULTS. MECHANICAL JOINTS AND RESTRAINT GLANDS REQUIRE 304 STAINLESS STEEL T-BOLTS. AN ANTI-SEIZE COMPOUND SHALL BE FACTORY APPLIED TO NUTS OR BOLTS – ANY DAMAGE TO THIS COATING SHALL BE REPAIR WITH FIELD APPLIED APPROVED ANTI-SEIZE COMPOUND THAT IS A MOLYBDENUM-BASE LUBRICANT, BOSTIK NEVER-SEEZ OR APPROVED EQUAL.

l. THE CONTRACTOR SHALL ROTATE AND/OR ADJUST ANY EXISTING AND/OR NEW HYDRANT TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC UTILITIES.

m. WATER MAINS SHALL BE SUBJECTED TO A HYDROSTATIC/LEAKAGE TEST IN ACCORDANCE WITH NAPERVILLE STANDARD SPECIFICATIONS. TEST PRESSURE SHALL BE NO LESS THAN 150 PSI FOR A PERIOD OF 4 HOURS AND NOT VARY BY MORE THAN ± 5 PSI. DURING THE TEST. THE TEST GAUGE SHALL BE APPROVED BY THE CITY AND SHALL BE GLYCERIN OR OIL FILLED, WITH A RANGE OF NOT MORE THAN 200 PSI AND INCREMENTS NOT GREATER THAN 5 PSI, 4 " MINIMUM DIAL SIZE. WATER RECOVERY TEST SHALL BE COMPLETED AT THE END OF THE TESTING PERIOD TO SHOW ACTUAL LEAKING AND THAT THE WATER MAIN DID NOT HAVE TOO MUCH TRAPPED AIR IN THE TESTED SECTION.

n. THE CITY OF NAPERVILLE PUBLIC UTILITIES DOES NOT GUARANTEE THAT ANY VALVE OR FITTING IN THE EXISTING WATER DISTRIBUTION SYSTEM WILL HOLD AGAINST A HYDROSTATIC/LEAKAGE TEST. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING AND ACCEPTABLE PRESSURE TEST WHICH SHALL INCLUDE PROVISIONS AROUND EXISTING VALVES AND FITTINGS.

o. FIRE HYDRANT SHOULD BE BAGGED "NOT IN SERVICE" UNTIL ALL TESTING AND DISINFECTION HAS BEEN COMPLETED AND NEW WATER MAIN SECTION IS SERVICE.

p. SANITARY SEWER AND WATER SHALL BE CONSTRUCTED, TESTED, AND PLACED INTO SERVICE IN ACCORDANCE WITH CITY OF NAPERVILLE STANDARD SPECIFICATION AND SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.

q. ALL VALVE BOXES, VAULTS, HYDRANTS, AND MANHOLES SHALL NOT BE COVERED WITH CONSTRUCTION DEBRIS AND SHALL REMAIN ACCESSIBLE TO THE RESPECTIVE UTILITY COMPANY.

r. WATER SERVICE LINE SMALLER THAN 3" SHALL BE TYPE K COPPER. IF JOINTS ARE REQUIRED DUE TO LENGTH OF SERVICE, THEN ONLY COMPRESSION TYPE COUPLING SHALL BE PERMITTED. NO SOLDERED OR FLARED TYPE JOINTS ARE ALLOWED.

s. ALL SANITARY MANHOLES SHALL BE TESTED FOR LEAKAGE BY VACUUM TESTING. THE MANHOLE FRAME AND ADJUSTING RINGS SHALL BE IN PLACE WHEN TESTING. ANY LEAKS SHALL BE REPAIRED FROM EXTERIOR OF MANHOLE – PATCHING INSIDE OF MANHOLE SHALL NOT BE ACCEPTABLE. A VACUUM OF 10" (254 MM) HG SHALL BE PLACE ON THE MANHOLE AND THE TIME SHALL BE MEASURED FOR THE VACUUM TO DROP TO 9" (229 MM) HG. THE VACUUM SHALL NOT DROP BELOW 9" (229 MM) HG FOR THE FOLLOWING TIME PERIODS FOR EACH SIZE OF MANHOLE:
   - a) 48-INCH DIAMETER – 60 SECONDS
   - b) 60-INCH DIAMETER – 75 SECONDS
   - c) 72-INCH DIAMETER – 90 SECONDS
   - d) 84-INCH DIAMETER – 105 SECONDS

   ANY MANHOLES THAT FAIL THE TEST SHALL BE SEALED AND RE-TESTED UNTIL ACCEPTABLE.

t. THE CONTRACTOR SHALL PROVIDE INTERNAL TELEVISED INSPECTION OF ALL INSTALLED SANITARY SEWER, LATERALS, MANHOLES AND CONNECTIONS TO THE PUBLIC SYSTEM. FOLLOWING COMPLETION OF TELEVISING WORK, THE CONTRACTOR SHALL SUBMIT VIDEO RECORDINGS ON DVD OR FLASH DRIVE ALONG WITH A COMPREHENSIVE TELEVISING REPORT WHICH WILL INDICATE THE LOCATION, FOOTAGES AND NATURE OF ANY DEFECTS. PRIOR TO FINAL ACCEPTANCE, THESE DEFECTS SHALL BE REPAIRED TO THE SATISFACTION OF THE WATER/WASTEWATER UTILITY AND RE-TELEVISED.

u. CONTRACTOR WORK HOURS ARE ONLY ALLOWED FROM 7:00 A.M. TO 5:00 P.M., MONDAY THROUGH SATURDAY. NO WORK SHALL BE PERMITTED ON SUNDAYS.

v. SANITARY PIPES WITH LESS THAN 4 FEET OR MORE THAN 25 FEET OF COVER SHALL BE CONSTRUCTED OF DUCTILE IRON PIPING (CLASS 50, MINIMUM) AND ENCASED IN POLYWRAP.

w. ALL EXCAVATIONS MORE THAN 20 FEET DEEP MUST BE PROTECTED BY A SYSTEM DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER.

x. CONTRACTOR SHALL MAINTAIN 2' MINIMUM CLEARANCE BETWEEN EXISTING UTILITIES AND NEW FOUNDATIONS AND UNDERGROUND FACILITIES. IN AREAS WHERE FOUNDATIONS AND UNDERGROUND FACILITIES ARE PROPOSED ADJACENT TO EXISTING UTILITIES, THE CONTRACTOR SHALL POT HOLE BY VACUUM EXCAVATION OR HAND EXCAVATION TO LOCATE THE EXISTING UTILITY TO VERIFY MINIMUM CLEARANCE REQUIREMENT.

y. FENCES SHALL BE INSTALLED A MINIMUM OF 5 FEET FROM ANY WATER OR SANITARY MAINS WHEN RUNNING PARALLEL WITH THEM. WHERE FENCES ARE INSTALLED CROSSING WATER OR SANITARY MAINS, THE POSTS SHALL BE LOCATED TO HAVE THE MAIN BETWEEN THEM.

z. ALL BRASS COMPONENTS SHALL BE CERTIFIED TO BE LEAD FREE IN COMPLIANCE WITH NSF 61 AND NSF 372 AND IDENTIFIED WITH APPLICABLE MARKINGS.

aa. SANITARY FORCE MAIN – FORCE MAN SHALL BE TESTED A MINIMUM OF 1 HOUR AT 1.5 THE SHUT OFF HEAD OF THE PUMP, 2.5 TIMES THE OPERATING PRESSURE, OR 20 PSI WHICHEVER IS GREATEST. ALLOWABLE LEAKAGE SHALL BE IN ACCORDANCE WITH SECTION 41-2.14C OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION.

NOTE: IF SPECIFICATIONS AND/OR DETAILS PROVIDED IN THESE PLANS CONFLICT WITH THE CITY OF NAPERVILLE SPECIFICATIONS AND/OR DETAILS, THE CITY OF NAPERVILLE SHALL SUPERCEDE.

No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

CITY OF NAPERVILLE SPECIFICATIONS
1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

JACOB & HEFNER
ASSOCIATES
1333 Butterfield Rd, Suite 300, Downers Grove, IL 60515
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H477a
N.T.S.
C2.1

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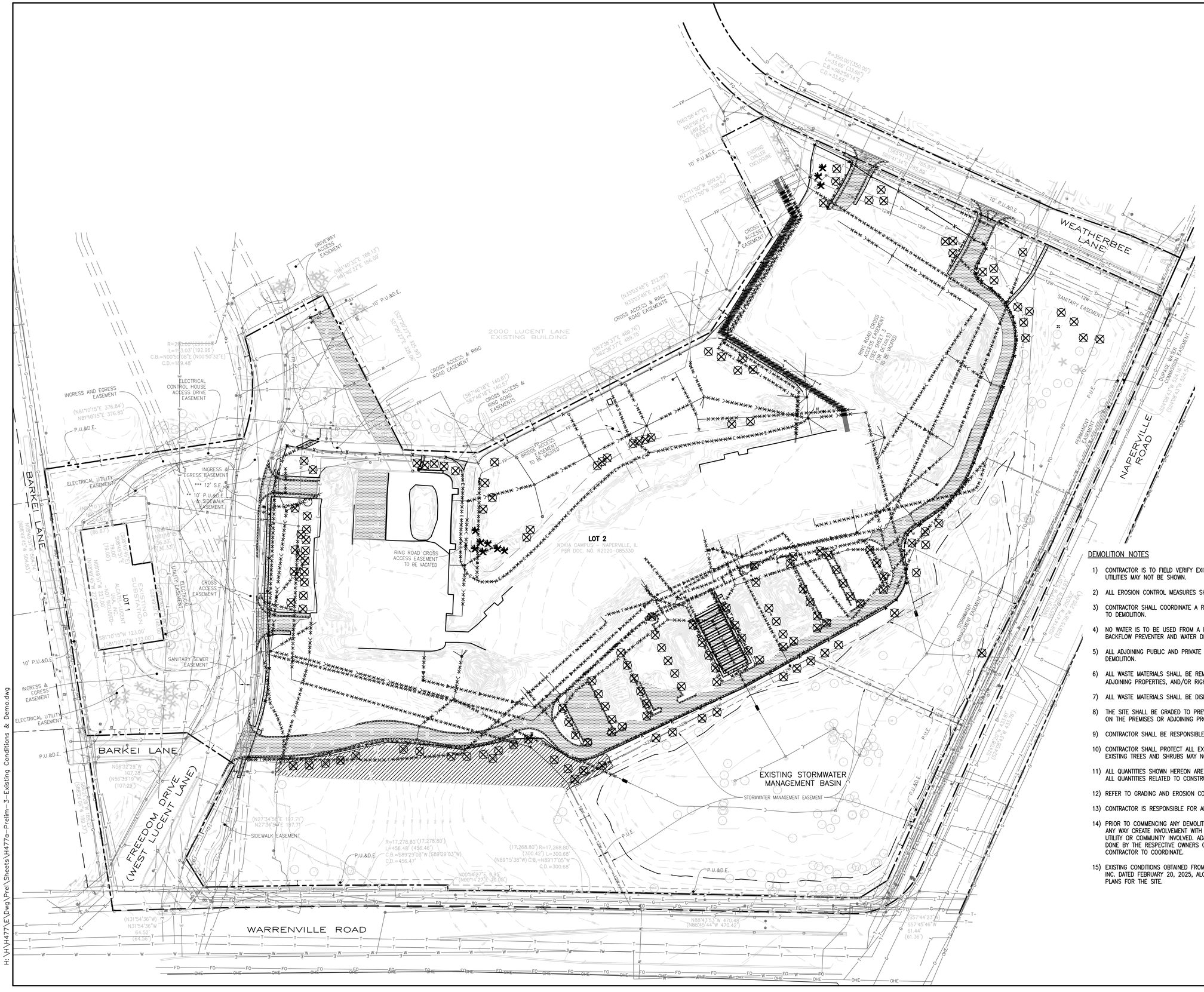

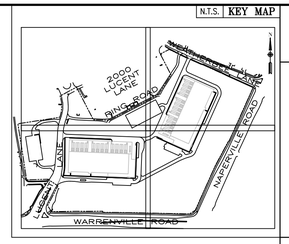

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GRAPHIC SCALE 1"= 80'

0 40' 80' 160'

DEMOLITION LEGEND

- DENOTES EXISTING PAVEMENT TO BE CRUSHED AND REUSED ON SITE AS FILL IN NON-STRUCTURAL AREAS.
- DENOTES EXISTING TREES & BRUSH REMOVAL.
- DENOTES EXISTING TREE REMOVAL.
- DENOTES EXISTING CURB & GUTTER TO BE CRUSHED AND REUSED ON SITE AS FILL IN NON-STRUCTURAL AREAS.
- *DENOTES EXISTING STORM SEWER REMOVAL.
- *DENOTES EXISTING SANITARY SEWER REMOVAL.
- *DENOTES EXISTING WATERMAIN REMOVAL.
- *DENOTES EXISTING TELECOMMUNICATIONS REMOVAL.
- *DENOTES EXISTING ELECTRIC REMOVAL.

*CONTRACTOR TO DISPOSE OF ALL WASTE MATERIAL OFF-SITE

DEMOLITION NOTES

1) CONTRACTOR IS TO FIELD VERIFY EXISTING UTILITY LOCATIONS AND ELEVATIONS PRIOR TO DEMOLITION. SOME UTILITIES MAY NOT BE SHOWN.
2) ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO DEMOLITION.
3) CONTRACTOR SHALL COORDINATE A RELEASE FROM THE ELECTRIC, GAS AND TELEPHONE COMPANIES PRIOR TO DEMOLITION.
4) NO WATER IS TO BE USED FROM A FIRE HYDRANT FOR DUST CONTROL WITHOUT A WATER METER, A BACKFLOW PREVENTER AND WATER DEPARTMENT APPROVAL.
5) ALL ADJOINING PUBLIC AND PRIVATE PROPERTY SHALL BE PROTECTED FROM DAMAGE CAUSED BY THE SITE DEMOLITION.
6) ALL WASTE MATERIALS SHALL BE REMOVED IN A MANNER THAT PREVENTS INJURY OR DAMAGE TO PERSONS, ADJOINING PROPERTIES, AND/OR RIGHT-OF-WAYS.
7) ALL WASTE MATERIALS SHALL BE DISPOSED OF OFFSITE IN AN APPROVED FACILITY.
8) THE SITE SHALL BE GRADED TO PREVENT THE ACCUMULATION OF WATER OR DAMAGE TO ANY FOUNDATIONS ON THE PREMISES OR ADJOINING PROPERTY.
9) CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS RELATED TO BUILDING DEMOLITION.
10) CONTRACTOR SHALL PROTECT ALL EXISTING TREES AND SHRUBS NOT INDICATED FOR REMOVAL. SOME EXISTING TREES AND SHRUBS MAY NOT BE SHOWN ON THE PLANS.
11) ALL QUANTITIES SHOWN HEREON ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS TO VERIFY ALL QUANTITIES RELATED TO CONSTRUCTION.
12) REFER TO GRADING AND EROSION CONTROL PLAN FOR EROSION CONTROL MEASURES.
13) CONTRACTOR IS RESPONSIBLE FOR ANALYTICAL SAMPLING AND ANALYSIS ASSOCIATED WITH CCDD HAUL OFF.
14) PRIOR TO COMMENCING ANY DEMOLITION AND/OR CONSTRUCTION ACTIVITIES ON THE PROJECT WHICH MAY IN ANY WAY CREATE INVOLVEMENT WITH EXISTING PUBLIC UTILITIES, THE CONTRACTOR SHALL CONTACT THE UTILITY OR COMMUNITY INVOLVED. ADJUSTMENT OF ANY PUBLIC UTILITIES WITHIN THIS PROJECT AREA WILL BE DONE BY THE RESPECTIVE OWNERS OF SAID UTILITIES AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE.
15) EXISTING CONDITIONS OBTAINED FROM A TOPOGRAPHIC SURVEY, PROVIDED BY JACOB & HEFNER ASSOCIATES, INC. DATED FEBRUARY 20, 2025, ALONG WITH SUPPLEMENTAL ATLAS MAPS AND PREVIOUS DEMOLITIONS PLANS FOR THE SITE.

No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

EXISTING CONDITIONS & DEMOLITION PLAN – OVERALL

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

JACOB & HEFNER ASSOCIATES
1333 Butterfield Rd, Suite 300, Downers Grove, IL 60515
PHONE: (630) 652-4600, FAX: (630) 652-4601
www.jacobandhefner.com

H477a

1" = 80'

C3.0

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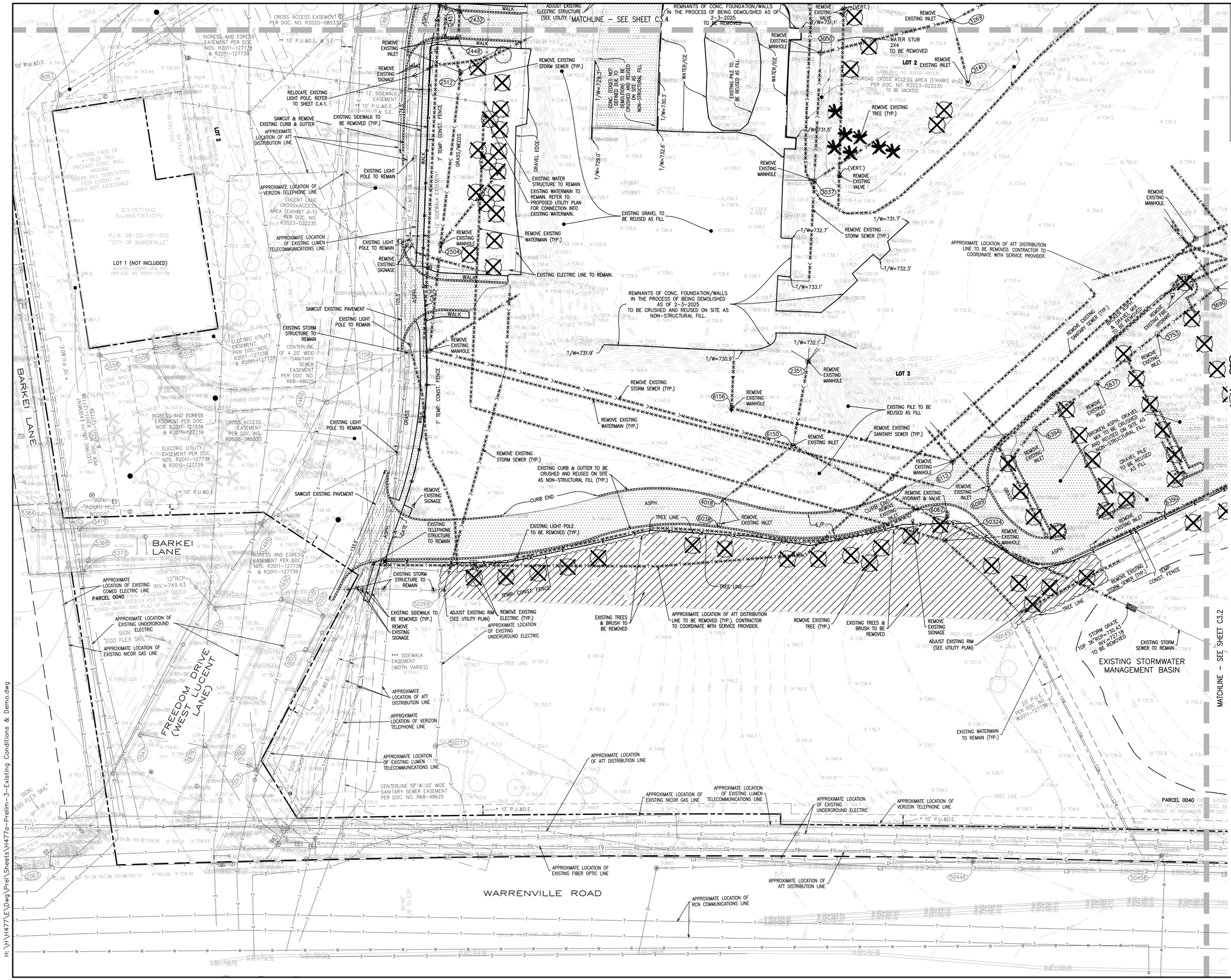
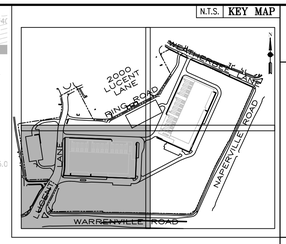


N.T.S. **KEY MAP**



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GRAPHIC SCALE 1"= 40'

0 20' 40' 80'

REFER TO SHEET C3.0 FOR EXISTING CONDITIONS AND DEMOLITION NOTES. REFER TO SHEET C3.4 FOR UTILITY STRUCTURE TABLE.

DEMOLITION LEGEND

- DENOTES EXISTING PAVEMENT TO BE CRUSHED AND REUSED ON SITE AS FILL IN NON-STRUCTURAL AREAS.
- DENOTES EXISTING TREES & BRUSH REMOVAL.
- DENOTES EXISTING TREE REMOVAL.
- DENOTES EXISTING CURB & GUTTER TO BE CRUSHED AND REUSED ON SITE AS FILL IN NON-STRUCTURAL AREAS.
- *DENOTES EXISTING STORM SEWER REMOVAL.
- *DENOTES EXISTING SANITARY SEWER REMOVAL.
- *DENOTES EXISTING WATERMAIN REMOVAL.
- *DENOTES EXISTING TELECOMMUNICATIONS REMOVAL.
- *DENOTES EXISTING ELECTRIC REMOVAL.
- *CONTRACTOR TO DISPOSE OF ALL WASTE MATERIAL OFF-SITE

No.	Description	Date
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EXISTING CONDITIONS & DEMOLITION PLAN – SOUTHWEST

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NAPERVILLE, ILLINOIS
KARIS CRITICAL

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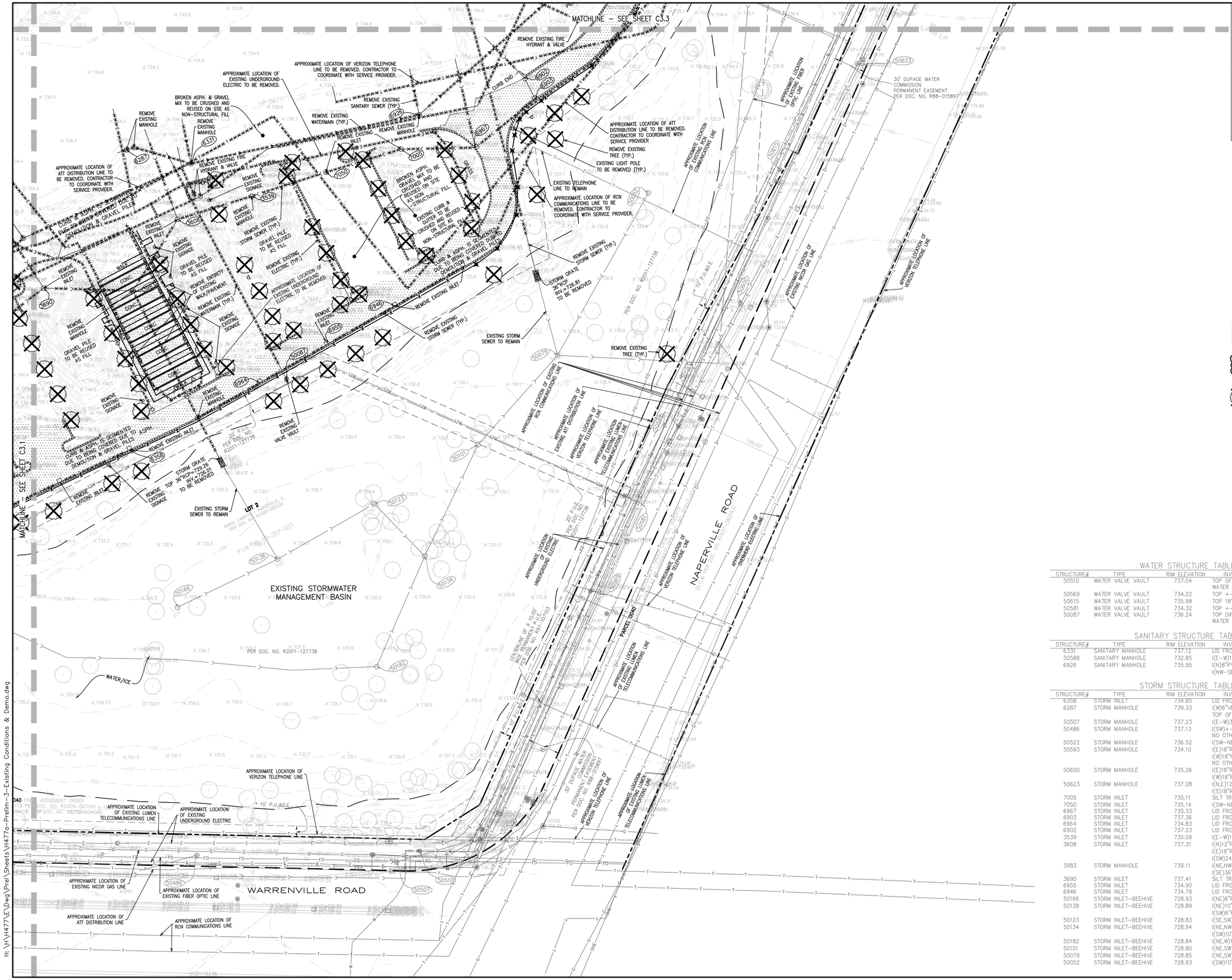
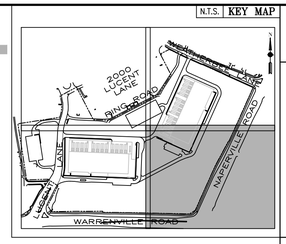
H477a

1" = 40'

C3.1





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REFER TO SHEET C3.0 FOR EXISTING CONDITIONS AND DEMOLITION NOTES.

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- *CONTRACTOR TO DISPOSE OF ALL WASTE MATERIAL OFF-SITE

WATER STRUCTURE TABLE – SHEET C3.2

STRUCTURE#	TYPE	RIM ELEVATION	INVERT
50510	WATER VALVE VAULT	737.04	TOP OF WATER=728.49 WATER FILLED–NO ACCESSIBLE PIPES
50569	WATER VALVE VAULT	734.22	TOP +–18"DIP SW–NE=727.37
50615	WATER VALVE VAULT	735.98	TOP 18"DIP E–W=730.88
50581	WATER VALVE VAULT	734.32	TOP +–18"DIP N–S=728.32
50087	WATER VALVE VAULT	736.24	TOP DIP NW–SE=727.94 WATER LINE=730.04

SANITARY STRUCTURE TABLE – SHEET C3.2

STRUCTURE#	TYPE	RIM ELEVATION	INVERT
6358	SANITARY MANHOLE	737.12	LID FROZEN–NOT ACCESSIBLE
50588	SANITARY MANHOLE	732.85	I(E–W)12"DIP=724.70
6926	SANITARY MANHOLE	735.95	I(N)8"PVC=726.90 I(NW–SE)12"PVC=725.10

STORM STRUCTURE TABLE – SHEET C3.2

STRUCTURE#	TYPE	RIM ELEVATION	INVERT
6358	STORM INLET	734.85	LID FROZEN–NOT ACCESSIBLE
6287	STORM MANHOLE	739.33	I(W)6"VERT. PIPE=727.53 TOP OF 6" PIPE=732.18
50507	STORM MANHOLE	737.23	I(E–W)36"RCP=728.93
50486	STORM MANHOLE	737.13	I(SW)+–36"RCP–OFFSET–NOT ACCESSIBLE NO OTHER ACCESSIBLE PIPES
50522	STORM MANHOLE	736.52	I(SW–NE)36"RCP=728.17
50593	STORM MANHOLE	734.10	I(E)18"RCP–OFFSET–NOT ACCESSIBLE I(W)18"RCP=726.80 NO OTHER VISIBLE PIPES
50600	STORM MANHOLE	735.26	I(E)18"RCP–OFFSET–NOT ACCESSIBLE I(W)18"RCP=726.36
50623	STORM MANHOLE	737.28	I(NE)12"RCP=729.28 I(S)18"RCP=729.28
7005	STORM INLET	735.11	SILT TRAP FULL–NOT ACCESSIBLE
7050	STORM INLET	735.14	I(SW–NE)18"RCP=731.04
6967	STORM INLET	735.33	LID FROZEN–NOT ACCESSIBLE
6903	STORM INLET	737.36	LID FROZEN–NOT ACCESSIBLE
6964	STORM INLET	734.83	LID FROZEN–NOT ACCESSIBLE
6902	STORM INLET	737.23	LID FROZEN–NOT ACCESSIBLE
3539	STORM INLET	735.09	I(E–W)18"RCP=730.44
3608	STORM INLET	737.31	I(N)12"PVC=731.81 I(E)18"RCP=729.41 I(SW)24"RCP=729.41
3983	STORM MANHOLE	739.11	I(NE,NW)24"RCP=728.86 I(SE)36"RCP=728.86
3690	STORM INLET	737.41	SILT TRAP FROZEN IN STRUCTURE–NOT ACCESSIBLE
6955	STORM INLET	734.90	LID FROZEN–NOT ACCESSIBLE
6946	STORM INLET	734.79	LID FROZEN–NOT ACCESSIBLE
50166	STORM INLET–BEEHIVE	728.93	I(NE)6"PVC=726.48
50138	STORM INLET–BEEHIVE	728.89	I(NE)10"PVC=726.24 I(SW)6"PVC=726.24
50123	STORM INLET–BEEHIVE	728.83	I(SE,SW)10"PVC=725.35
50134	STORM INLET–BEEHIVE	728.94	I(NE,NW)10"PVC=+–725.64 I(SW)10"PVC–NOT ACCESSIBLE
50182	STORM INLET–BEEHIVE	728.84	I(NE,W)10"CLAY=726.09
50101	STORM INLET–BEEHIVE	728.80	I(NE,SW)10"PVC=725.45
50079	STORM INLET–BEEHIVE	728.85	I(NE,SW)10"PVC=725.30
50052	STORM INLET–BEEHIVE	728.93	I(SW)10"PVC=725.78

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EXISTING CONDITIONS & DEMOLITION PLAN – SOUTHEAST

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

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H477a

1" = 40'

C3.2

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STORM STRUCTURE TABLE – SHEET C3.3

STRUCTURE#	TYPE	RIM ELEVATION	INVERT
50632	STORM MANHOLE	739.43	I(N-S,E)12"RCP=731.23
50643	STORM MANHOLE	739.29	I(N-S,E)12"RCP=732.49
50685	STORM MANHOLE	737.98	I(E,S)12"RCP-NOT ACCESSIBLE NO OTHER PIPES VISIBLE
6312	STORM INLET	739.14	I(N-S)36"RCP=727.49 I(NE)24"RCP-OFFSET-NOT ACCESSIBLE
6309	STORM MANHOLE	741.98	I(SW)12"RCP=735.23 PIPES NW,N,NE,E ARE COVERED-POURED BOTTOM
3450	STORM INLET	740.60	I(SE,SW)36"RCP=728.45

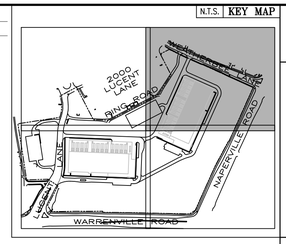
STORM STRUCTURE TABLE – SHEET C3.3

STRUCTURE#	TYPE	RIM ELEVATION	INVERT
2967	STORM MANHOLE	736.49	I(N)24"RCP-OFFSET-NOT ACCESSIBLE I(E-NW)36"RCP=728.44 I(SE)6"PVC=732.89
6638	STORM MANHOLE	737.27	I(N,SE,S,NW)-ALL COVERED WITH DIRT-NOT ACCESSIBLE TOP OF DIRT=733.92
2976	STORM MANHOLE	736.13	I(S)24"RCP=728.83 I(N,NW)18"RCP-NOT ACCESSIBLE I(W)6"PVC-NOT ACCESSIBLE
4410	STORM INLET	736.25	I(NW)12"RCP=733.90
4340	STORM INLET	736.39	I(SE)12"RCP=733.79 I(NW)12"RCP=733.64
7388	STORM INLET	736.73	I(N,W)8"RCP=733.68 I(SE,NW)6"HDPE=733.68-POURED BOTTOM
7389	STORM INLET	736.92	I(S)8"RCP=734.37
4285	STORM INLET-BEEHIVE	737.66	SILT TRAP FROZEN IN STRUCTURE-NOT ACCESSIBLE
4273	STORM INLET-BEEHIVE	738.09	I(NW)8"RCP=733.54
4277	STORM INLET	738.25	I(N)6"PVC=731.90 I(NE)12"PVC=731.90 I(SE)8"RCP=733.15
4306	STORM MANHOLE	738.87	I(NE,NW,S)18"RCP=728.62 I(E)8"PVC=728.82
7340	STORM MANHOLE	737.89	I(E-W)18"PVC=729.24
7341	STORM INLET	736.92	LID FROZEN-NOT ACCESSIBLE
3277	STORM INLET-BEEHIVE	735.51	LID FROZEN-NOT ACCESSIBLE
7431	STORM INLET	736.55	I(NW-SE)8"RCP=733.40
7399	STORM INLET	736.40	I(SE)8"RCP=733.60
7424	STORM MANHOLE	737.08	I(NW,SE)6"HDPE=734.73 I(NE)12"RCP=730.12
7460	STORM MANHOLE	737.47	I(SE)+-10"PVC=NOT ACCESSIBLE I(SW)=PLUGGED

STORM STRUCTURE TABLE – SHEET C3.3

STRUCTURE#	TYPE	RIM ELEVATION	INVERT
			I(NW)+-10"PVC=730.82
7475	STORM INLET	735.10	I(NE)12"RCP=734.53 I(NE)10"RCP=731.40
7482	STORM INLET	736.05	I(SE)8"CLAY-730.70 I(NE)12"RCP=733.95 SW IS PLUGGED-NO PIPE
4481	MANHOLE(?)	738.44	BURIED IN SNOW-NOT ACCESSIBLE
4900	STORM INLET	736.94	I(NE)15"RCP=733.69
4935	STORM MANHOLE	737.78	I(E-W)36"RCP=726.93
4941	MANHOLE(?)	738.46	BURIED IN SNOW-NOT ACCESSIBLE
4949	MANHOLE(?)	737.55	BURIED IN SNOW-NOT ACCESSIBLE
4924	STORM MANHOLE	738.75	I(W)18"CLAY=728.20
4667	STORM INLET	737.4	I(NE)18"RCP=732.36 I(SE)18"RCP-OFFSET-NOT ACCESSIBLE
4715	STORM INLET	737.24	I(NE)12"RCP=732.14
4770	STORM MANHOLE	737.57	I(NW,SW)36"RCP=726.22
4235	STORM INLET	736.97	I(N,NE)12"RCP=729.37 I(S)18"RCP=729.37
3192	STORM INLET	735.65	I(N-S)12"RCP=730.75
3281	STORM INLET-BEEHIVE	735.00	I(N)12"RCP=728.80 I(E)36"RCP=728.70 I(SW)36"RCP=728.70
4786	STORM INLET	736.09	I(NE-SW)12"RCP=733.64
4856	STORM MANHOLE	736.61	I(NE)15"RCP=728.41 I(NW-SE)+-36"RCP=726.46 I(SW)12"RCP-NOT ACCESSIBLE
4874	STORM MANHOLE	736.37	I(NE)15"RCP=728.87 I(SW)RESTRICTOR PLATE OVER 15"RCP=729.07
4848	STORM MANHOLE	737.75	I(NW-SE)+-36"RCP=726.40 I(SW)+-18"RCP=729.30
4842	STORM MANHOLE	737.88	I(NW-SE)+-36"RCP=726.43
4841	STORM MANHOLE	738.28	I(NW,NE)+-30"RCP=729.18 RIM IS OFF CENTER DOES NOT CONNECT TO 4842
4835	STORM MANHOLE	738.23	I(NW-SE)30"RCP=726.58
4808	STORM INLET	736.86	I(N)12"RCP-NOT ACCESSIBLE I(SE)30"RCP=729.16 I(NW)24"RCP=729.16
4577	STORM INLET	737.55	I(NW,NE)12"RCP=735.30
4578	STORM MANHOLE	738.22	TOP OF DIRT=735.92 NO PIPES VISIBLE
4662	STORM INLET	737.29	I(NW,NE)15"RCP=732.89 I(SW)12"RCP=732.89
4666	STORM INLET	737.22	I(SE)15"RCP=732.52 I(NW)18"RCP=732.52
50018	STORM MANHOLE	734.51	I(N-S)+-36"RCP=725.96

N.T.S. **KEY MAP**



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GRAPHIC SCALE 1"= 40'

0 20' 40' 80'

REFER TO SHEET C3.0 FOR EXISTING CONDITIONS AND DEMOLITION NOTES.

DEMOLITION LEGEND

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- DENOTES EXISTING TREES & BRUSH REMOVAL.
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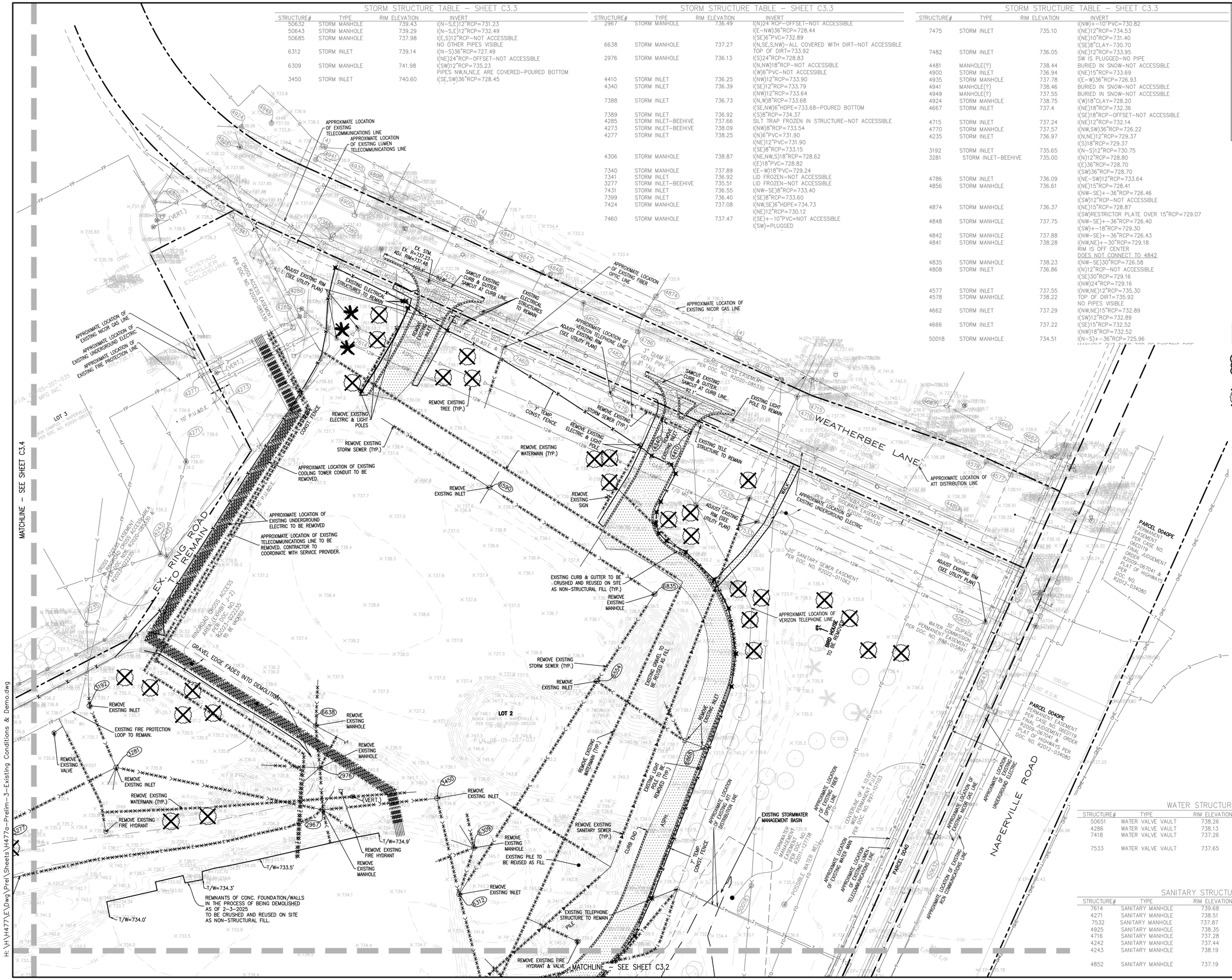
- *CONTRACTOR TO DISPOSE OF ALL WASTE MATERIAL OFF-SITE

MATCHLINE – SEE SHEET C3.4



WATER STRUCTURE TABLE – SHEET C3.3

STRUCTURE#	TYPE	RIM ELEVATION	INVERT
50651	WATER VALVE VAULT	738.26	TOP +-18"DIP N-S,W=732.81
4286	WATER VALVE VAULT	738.13	TOP +-12"DIP SW-NE=732.63
7418	WATER VALVE VAULT	737.26	TOP OF WATER=733.46 WATER FILLED-NO ACCESSIBLE PIPES
7533	WATER VALVE VAULT	737.65	TOP 18"DIP N-S=730.20 TOP 12"DIP E=730.20

SANITARY STRUCTURE TABLE – SHEET C3.3

STRUCTURE#	TYPE	RIM ELEVATION	INVERT
7614	SANITARY MANHOLE	739.68	I(SE,SW)12"CLAY(?)=727.63
4271	SANITARY MANHOLE	738.51	I(NW-SW)12"RCP=730.06
7532	SANITARY MANHOLE	737.87	I(NE,SE,SW,NW)+-10"PVC=722.12
4925	SANITARY MANHOLE	738.35	I(NW,SE)12"(RCP?)=724.05
4716	SANITARY MANHOLE	737.28	IN ROADWAY-LIMITED ACCESS
4242	SANITARY MANHOLE	737.44	I(NW,NE)+-10"PVC=729.54
4243	SANITARY MANHOLE	738.19	I(NW,SE)10"PVC=730.04 I(W)6"PVC=730.89
4852	SANITARY MANHOLE	737.19	I(NW-SE)=723.09-SIZE & MATERIAL UNKNOWN

MATCHLINE – SEE SHEET C3.2

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No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

EXISTING CONDITIONS & DEMOLITION PLAN – NORTHEAST

1960 WEST LUCENT LANE

NAPERVILLE, ILLINOIS

KARIS CRITICAL

JACOB & HEFNER ASSOCIATES
1333 Butterfield Rd, Suite 300, Downers Grove, IL 60515
PHONE: (630) 652-4600, FAX: (630) 652-4601
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H477a

1" = 40'

C3.3

WATER STRUCTURE TABLE – SHEET C3.4

STRUCTURE#	TYPE	RIM ELEVATION	INVERT
1346	WATER VALVE VAULT	738.65	TOP DIP=731.95 WATER FILLED
2031	WATER VALVE VAULT	740.33	TOP +–8"DIP N–S=734.88

STORM STRUCTURE TABLE – SHEET C3.4

STRUCTURE#	TYPE	RIM ELEVATION	INVERT
1406	STORM INLET	737.62	I(NE)12"RCP=735.92 I(SW)12"RCP=735.77
1398	STORM MANHOLE	737.64	I(NE)12"RCP=735.44 I(SE)6"PLASTIC=735.54 I(NW)6"PLASTIC=735.44 DEBRIS FILLED
1399	MANHOLE(ELECTRIC?)	737.19	WATER FILLED–TOP OF WATER=731.29 EXPOSED ELECTRIC WIRES INSIDE
1414	STORM MANHOLE	738.79	I(NW)6"PLASTIC=736.29 I(S)6"PVC=736.39
1284	MANHOLE	739.21	FULL OF SOIL–TOP OF SOIL=738.01
1296	STORM INLET	737.65	I(SE)12"RCP=735.30
1377	STORM INLET	740.89	I(NE)12"CLAY=732.79 S. PORTION OF STRUCTURE RECESSED– NO OTHER ACCESSIBLE PIPES
1272	STORM MANHOLE	739.15	I(N)18"RCP=730.55 I(S)18"RCP=730.65 I(SW)12"RCP=734.05
1430	STORM INLET	739.62	I(NE–SW)12"RCP=737.12
1883	MANHOLE(?)	740.21	WATER FILLED–TOP OF WATER=736.91
2448	STORM INLET	738.76	I(N)8"RCP=736.16 I(W)12"RCP=736.16
2432	STORM INLET	738.68	I(N)8"PVC=736.23 I(S)8"RCP=736.18
2451	STORM INLET	739.05	I(N–SE)18"RCP=730.20 I(E)12"RCP–NOT ACCESSIBLE
2245	STORM MANHOLE	736.42	I(N–S)18"RCP=730.57
3050	STORM MANHOLE	736.19	I(SW)12"RCP=730.29 I(E)18"RCP=730.29
3269	STORM INLET–BEEHIVE	735.01	LID FROZEN–NOT ACCESSIBLE
3102	STORM INLET	735.54	I(N)18"RCP=729.64 I(S)24"RCP=729.64
3081	STORM INLET	736.16	I(SE)8"RCP=731.08
3273	STORM INLET–BEEHIVE	735.39	LID FROZEN–NOT ACCESSIBLE
3277	STORM INLET–BEEHIVE	735.51	LID FROZEN–NOT ACCESSIBLE
5789	STORM INLET	740.09	I(E,SW,S)12"RCP=737.54
5765	MANHOLE(?)	737.53	WATER LINE=731.38 BOTTOM OF STRUCTURE=727.33 TOP 2"STEEL PIPE(NE)736.63 LOOSE ELEC. WIRES INSIDE STRUCTURE
2017	STORM INLET–BEEHIVE	738.00	I(NE,SW)15"RCP=731.00 I(N)15"CLAY(DROP)ICED OVER–NOT ACCESSIBLE
5042	STORM INLET–BEEHIVE	736.50	I(NW)6"PVC=734.65
2046	STORM MANHOLE	738.46	I(NE–SW)8"PVC=731.76 I(SE)6"PVC=733.41
3204	STORM INLET	736.08	I(NW)6"CLAY=730.98 I(S)4"PVC=732.08

WATER STRUCTURE TABLE – SHEET C3.1

STRUCTURE#	TYPE	RIM ELEVATION	INVERT
50324	WATER VALVE VAULT	740.50	TOP 12"DIP N=731.30 TOP +–18"DIP NW–SE=731.30
50149	WATER VALVE VAULT	737.45	TOP +–18"DIP NW–SE,SW–NE=731.40
50458	WATER VALVE VAULT	739.14	TOP +–12"DIP E–W=731.44 WATER LINE=733.14

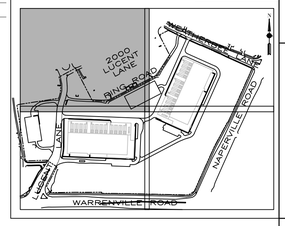
SANITARY STRUCTURE TABLE – SHEET C3.1

STRUCTURE#	TYPE	RIM ELEVATION	INVERT
6156	SANITARY MANHOLE	737.95	I(N)6"DIP=733.00 I(SE)8"DIP=733.00
2351	SANITARY MANHOLE?	741.91	I(N,NE,E)8"PVC(DROP)NOT ACCESSIBLE I(SE)8"PVC(DROP)=735.26 I(W)RCP=733.61–SIZE UNKNOWN
50446	SANITARY MANHOLE	740.68	WATER LINE=735.68–NO PIPES VISIBLE

STORM STRUCTURE TABLE – SHEET C3.1

STRUCTURE#	TYPE	RIM ELEVATION	INVERT
1883	MANHOLE(?)	740.21	WATER FILLED–TOP OF WATER=736.91
1460	STORM INLET	746.46	I(NE)18"RCP=739.96 I(SW)18"RCP=739.76
1158	STORM MANHOLE	747.67	I(E–W)12"RCP=739.17
2504	STORM MANHOLE	744.30	I(N–S)24"RCP=729.60 I(NE)+–8"RCP(DROP)–NOT ACCESSIBLE
2512	STORM INLET	737.35	I(S)24"RCP=729.95 I(NW)18"RCP=729.95
2448	STORM INLET	738.76	I(N)8"RCP=736.16 I(W)12"RCP=736.16
2432	STORM INLET	738.68	I(N)8"PVC=736.23 I(S)8"RCP=736.18
2451	STORM INLET	739.05	I(N–SE)18"RCP=730.20 I(E)12"RCP–NOT ACCESSIBLE
1030	STORM INLET	752.08	I(S)12"RCP–NOT ACCESSIBLE
1101	STORM INLET–BEEHIVE	751.56	I(N)12"DIP=748.26
1013	STORM MANHOLE	756.14	I(NE)18"RCP–OFFSET–NOT ACCESSIBLE I(SE)24"RCP=748.34 I(NW,W)12"RCP(DROP)–OFFSET–NOT ACCESSIBLE
1023	STORM INLET	752.76	I(N)12"RCP=748.71 I(S)18"RCP=748.76
1012	STORM INLET	755.66	I(SE)12"RCP=750.86
1495	STORM MANHOLE	750.41	I(S)12"RCP=741.91 I(NW)RCP–NOT ACCESSIBLE
1650	STORM INLET	752.21	I(W)12"RCP=748.86 I(E)12"RCP–OFFSET–NOT ACCESSIBLE
1534	STORM INLET	752.28	I(E)12"RCP=749.13 I(NW)12"RCP=749.38
1547	STORM INLET	756.03	I(E)12"RCP=751.73
1676	STORM INLET	756.25	I(SE)12"RCP=749.80 I(W)12"RCP=750.15
1563	STORM INLET	762.09	I(NW)12"DIP=759.64
6150	STORM INLET–BEEHIVE	735.40	NOT ACCESSIBLE DUE TO ICE AND SILT
6038	STORM INLET	742.30	LID FROZEN–NOT ACCESSIBLE
6112	STORM MANHOLE(?)	736.44	LID FROZEN–NOT ACCESSIBLE
6062	STORM INLET	737.47	LID FROZEN–NOT ACCESSIBLE
6099	STORM INLET	735.02	LID FROZEN–NOT ACCESSIBLE
6350	STORM INLET	734.87	LID FROZEN–NOT ACCESSIBLE
50269	STORM INLET	750.30	I(NE,W)12"RCP=745.25
50277	MANHOLE	753.56	FULL OF DIRT–TOP OF DIRT=751.96
4018	STORM INLET	742.24	LID FROZEN–NOT ACCESSIBLE
3690	STORM INLET	737.41	SILT TRAP FROZEN IN STRUCTURE–NOT ACCESSIBLE
3837	STORM INLET	734.61	STRUCTURE DAMAGED–SILT TRAP FROZEN NOT ACCESSIBLE
3753	STORM INLET	734.80	I(E–W)18"RCP=730.25–STRUCTURE DAMAGED
6394	STORM INLET	734.88	SILT TRAP FROZEN IN STRUCTURE–NOT ACCESSIBLE
3050	STORM MANHOLE	736.19	I(SW)12"RCP=730.29 I(E)18"RCP=730.29
3037	STORM MANHOLE	736.30	I(NW)8"PVC(?)=732.65 I(NE)12"RCP=732.65 NO OTHER VISIBLE PIPES
3141	STORM INLET	736.05	LID FROZEN–NOT ACCESSIBLE
8067	STORM MANHOLE	744.44	I(NE)12"RCP=738.39 I(SW)4"PVC=738.54
5518	STORM INLET	742.72	I(W)12"PVC=740.52
5508	STORM INLET	742.68	I(E)12"PVC=740.43 I(W)12"RCP=740.43
5558	STORM MANHOLE	747.77	I(N,E)12"RCP=740.57 I(S)4"PVC(DROP)–NOT ACCESSIBLE
5384	STORM INLET–BEEHIVE	749.49	I(E)12"RCP=745.39
5419	STORM INLET–BEEHIVE	749.29	I(S,W)12"RCP=745.04
5368	STORM INLET	750.03	I(SW)12"RCP=746.93
5373	STORM INLET–BEEHIVE	748.75	I(N)12"RCP=745.15 I(NE)12"RCP=745.35 6"PVC=746.40
50166	STORM INLET–BEEHIVE	728.93	I(NE)6"PVC=726.48
50138	STORM INLET–BEEHIVE	728.89	I(NE)10"PVC=726.24 I(SW)6"PVC=726.24
50123	STORM INLET–BEEHIV	728.83	I(SE,SW)10"PVC=725.35
50134	STORM INLET–BEEHIVE	728.94	I(NE,NW)10"PVC=+–725.64 I(SW)10"PVC–NOT ACCESSIBLE
50182	STORM INLET–BEEHIVE	728.84	I(NE,W)10"CLAY=726.09
50101	STORM INLET–BEEHIVE	728.80	I(NE,SW)10"PVC=725.45
50079	STORM INLET–BEEHIVE	728.85	I(NE,SW)10"PVC=725.30
50052	STORM INLET–BEEHIVE	728.93	I(SW)10"PVC=725.78
50018	STORM MANHOLE	734.51	I(N–S)+–36"RCP=725.96 MANHOLE CUT OVER TOP OF EXISTING PIPE

N.T.S. **KEY MAP**



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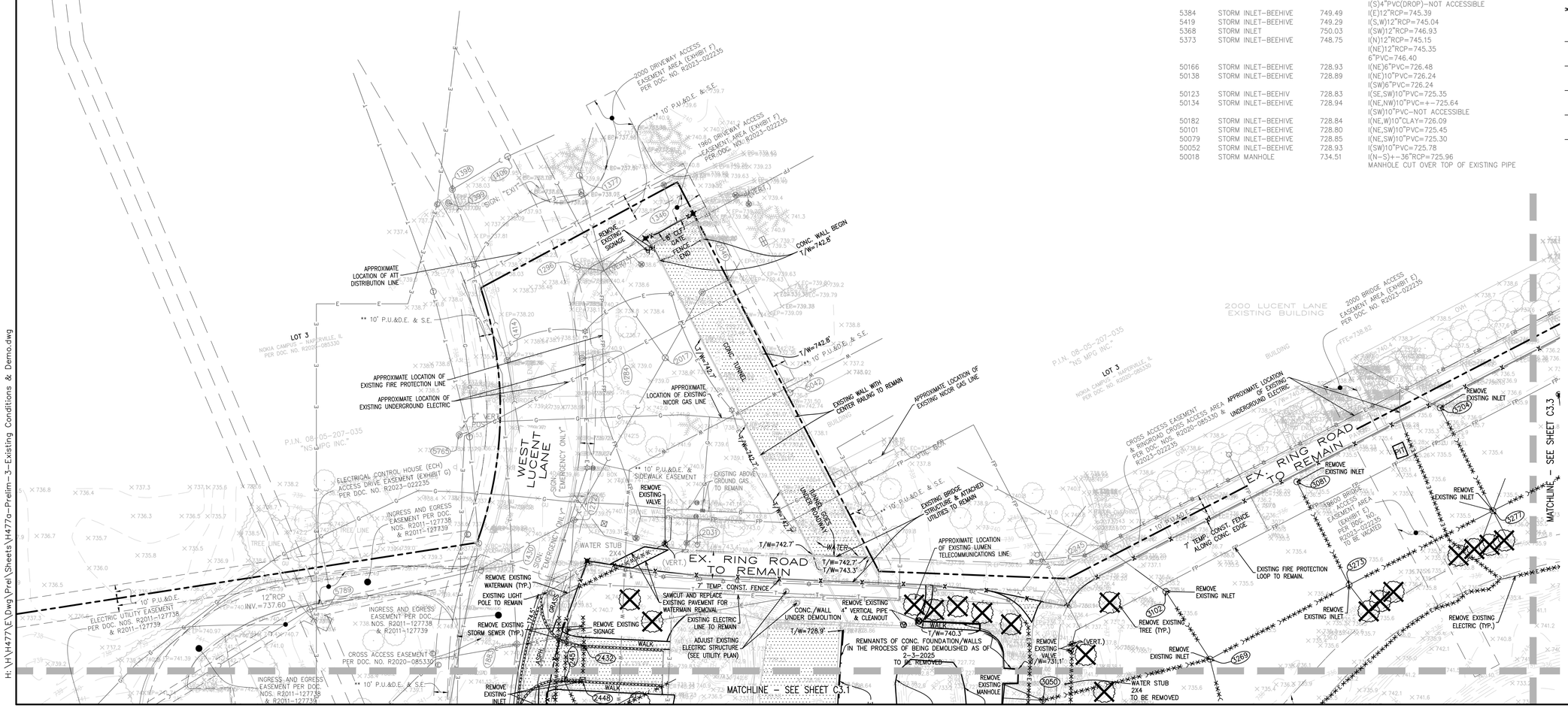
GRAPHIC SCALE 1"= 40'

0 20' 40' 80'

REFER TO SHEET C3.0 FOR EXISTING CONDITIONS AND DEMOLITION NOTES.

DEMOLITION LEGEND

- DENOTES EXISTING PAVEMENT TO BE CRUSHED AND REUSED ON SITE AS FILL IN NON–STRUCTURAL AREAS.
- DENOTES EXISTING TREES & BRUSH REMOVAL.
- DENOTES EXISTING TREE REMOVAL.
- DENOTES EXISTING CURB & GUTTER TO BE CRUSHED AND REUSED ON SITE AS FILL IN NON–STRUCTURAL AREAS.
- *DENOTES EXISTING STORM SEWER REMOVAL.
- *DENOTES EXISTING SANITARY SEWER REMOVAL.
- *DENOTES EXISTING WATERMAIN REMOVAL.
- *DENOTES EXISTING TELECOMMUNICATIONS REMOVAL.
- *DENOTES EXISTING ELECTRIC REMOVAL.
- *CONTRACTOR TO DISPOSE OF ALL WASTE MATERIAL OFF–SITE



No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

EXISTING CONDITIONS & DEMOLITION PLAN – NORTHWEST

1960 WEST LUCENT LANE

NAPERVILLE, ILLINOIS

KARIS CRITICAL

JACOB & HEFNER ASSOCIATES
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H477a

1" = 40'

C3.4

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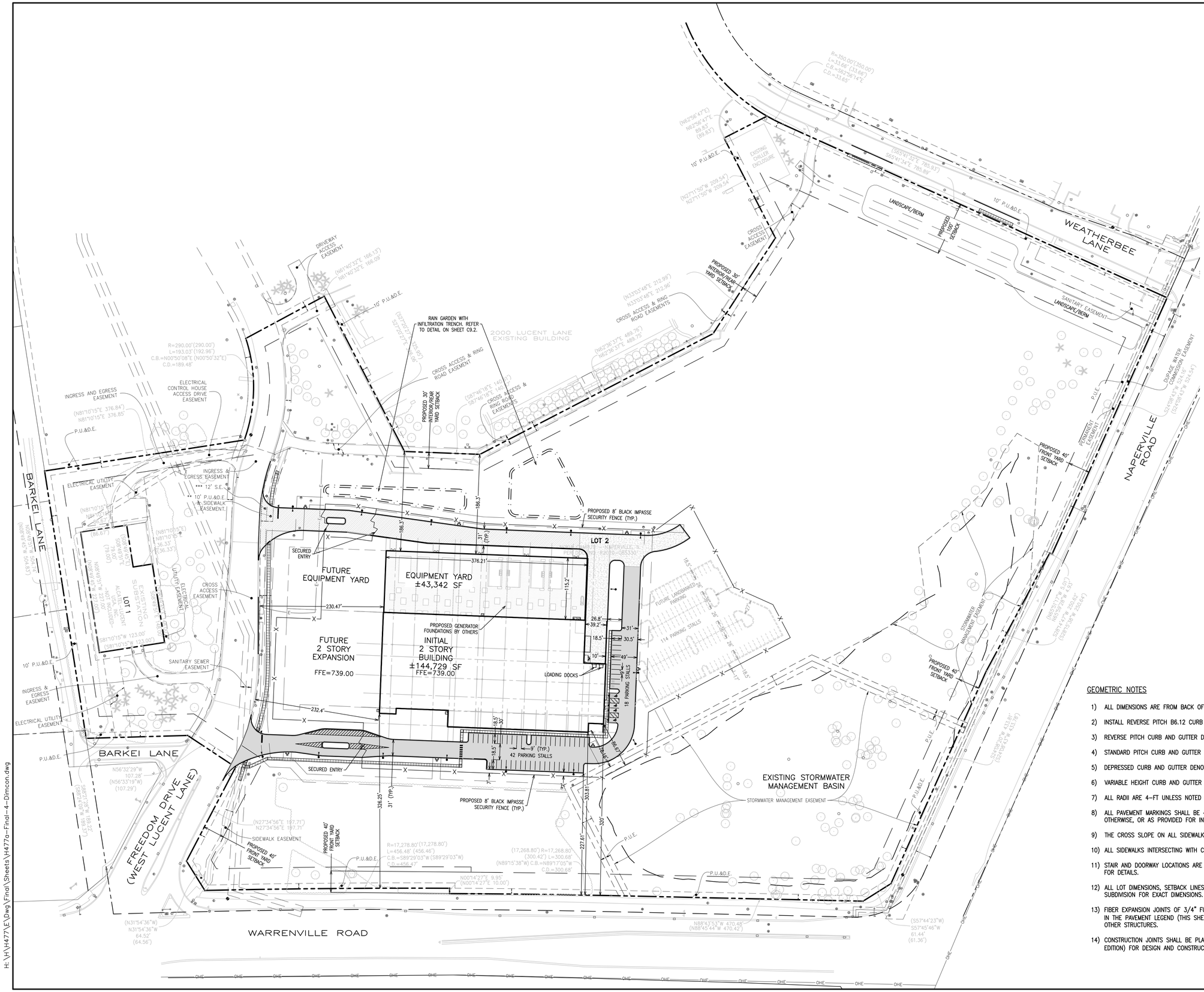

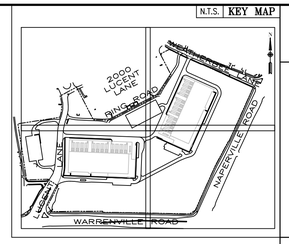

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GRAPHIC SCALE 1"= 80'

0 40' 80' 160'

PAVEMENT LEGEND

LIGHT DUTY ASPHALT PAVEMENT
2.0" SURFACE COURSE, MIX "D", N50
2.25" HMA BINDER COURSE, IL-19, N50
8.0" CA-6 AGGREGATE BASE COURSE

HEAVY DUTY ASPHALT PAVEMENT
2.0" SURFACE COURSE, MIX "D", N50
3.0" HMA BINDER COURSE, IL-19, N50
12.0" CA-6 AGGREGATE BASE COURSE

SIDEWALK PAVEMENT
5.0" PCC PAVEMENT (4,000 PSI UNREINFORCED, BROOM FINISH)
4.0" CA-6 BASE COURSE
CONTRACTION JOINTS @ 5' C-C
EXPANSION JOINTS @ 50' C-C

CONCRETE PAVEMENT
6.0" PCC PAVEMENT, 4,000 PSI, A/E
4.0" CA-6 BASE COURSE
CONTRACTION JOINTS @ 15' C-C MAX.
EXPANSION JOINTS @ 60' C-C

PROPOSED GRAVEL
12.0" CA-6 AGGREGATE BASE COURSE

SITE DATA:

LOT AREA = 41.43 ACRES

PROPOSED BUILDING SQUARE FOOTAGE (BUILDING IS 2 STORIES)
PROPOSED BUILDING – ±144,729 SF

MAXIMUM BUILDING HEIGHT = 60'

SETBACKS
FRONT YARD SETBACK = 30' + 1' FOR EVERY 3' OF BUILDING HEIGHT ABOVE 30' = 40'
REAR/INTERIOR YARD SETBACK = 20' + 1' FOR EVERY 3' OF BUILDING HEIGHT ABOVE 30' = 30'
SETBACK ADJACENT TO RESIDENTIAL = 100'

PARKING COUNTS
PROPOSED BUILDING – 60 STALLS (4 ADA)
LANDBANKED PARKING – 114 STALLS (5 ADA)

GEOMETRIC NOTES

1) ALL DIMENSIONS ARE FROM BACK OF CURB OR OUTSIDE FACE OF BUILDING UNLESS NOTED OTHERWISE.
2) INSTALL REVERSE PITCH B6.12 CURB AND GUTTER AT EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.
3) REVERSE PITCH CURB AND GUTTER DENOTED BY:
4) STANDARD PITCH CURB AND GUTTER DENOTED BY:
5) DEPRESSED CURB AND GUTTER DENOTED BY:
6) VARIABLE HEIGHT CURB AND GUTTER DENOTED BY:
7) ALL RADII ARE 4-FT UNLESS NOTED OTHERWISE.
8) ALL PAVEMENT MARKINGS SHALL BE 4" PAINT CONFORMING TO MUNICIPAL STANDARDS, UNLESS NOTED OTHERWISE, OR AS PROVIDED FOR IN THE DETAILS.
9) THE CROSS SLOPE ON ALL SIDEWALKS SHALL NOT EXCEED 1.5%.
10) ALL SIDEWALKS INTERSECTING WITH CURB SHALL BE CONSTRUCTED WITH HANDICAP RAMPS.
11) STAIR AND DOORWAY LOCATIONS ARE SHOWN FOR REFERENCE ONLY. REFER TO THE ARCHITECTURAL PLANS FOR DETAILS.
12) ALL LOT DIMENSIONS, SETBACK LINES, EASEMENTS, ETC., SHOWN ARE APPROXIMATE. SEE PLAT OF SUBDIVISION FOR EXACT DIMENSIONS.
13) FIBER EXPANSION JOINTS OF 3/4" FULL DEPTH BIT. FIBER MATERIAL SHALL BE INSTALLED AS REFERENCED IN THE PAVEMENT LEGEND (THIS SHEET) AND WHERE CONCRETE ABUTS ALL CURB, BUILDING, POLES OR OTHER STRUCTURES.
14) CONSTRUCTION JOINTS SHALL BE PLACED WHERE REQUIRED IN ACCORDANCE WITH ACI 330R GUIDE (LATEST EDITION) FOR DESIGN AND CONSTRUCTION OF CONCRETE PARKING LOTS.

No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

DIMENSIONAL CONTROL & PAVING PLAN – OVERALL

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

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H477a

1" = 80'

C4.0

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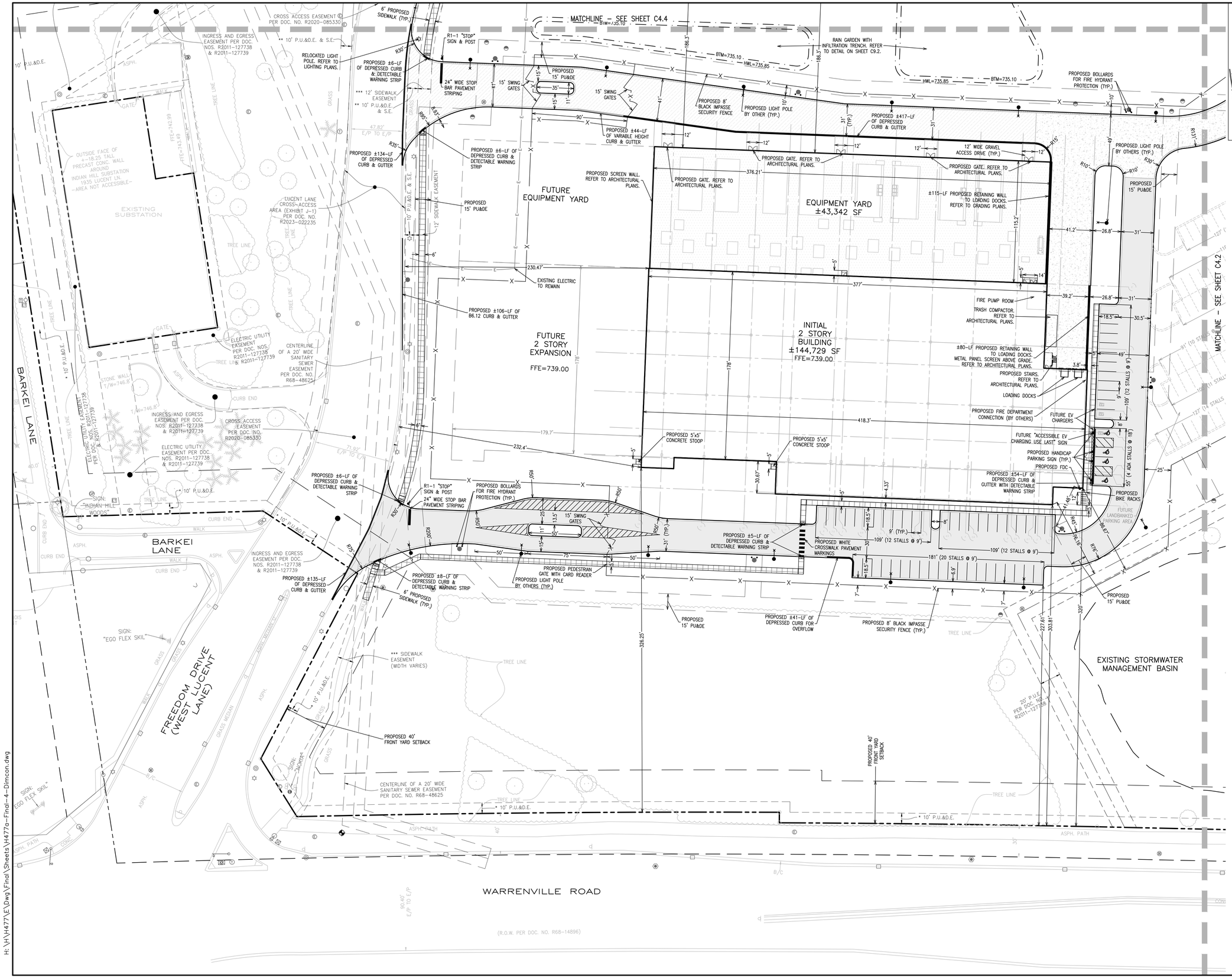
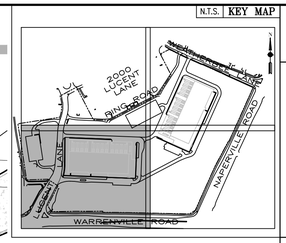


N.T.S. KEY MAP



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GRAPHIC SCALE 1"= 40'

0 20' 40' 80'

REFER TO SHEET C4.0 FOR GEOMETRIC NOTES.

PAVEMENT LEGEND

LIGHT DUTY ASPHALT PAVEMENT
2.0" SURFACE COURSE, MIX "D", N50
2.25" HMA BINDER COURSE, IL-19, N50
8.0" CA-6 AGGREGATE BASE COURSE

HEAVY DUTY ASPHALT PAVEMENT
2.0" SURFACE COURSE, MIX "D", N50
3.0" HMA BINDER COURSE, IL-19, N50
12.0" CA-6 AGGREGATE BASE COURSE

SIDEWALK PAVEMENT
5.0" PCC PAVEMENT (4,000 PSI UNREINFORCED, BROOM FINISH)
4.0" CA-6 BASE COURSE
CONTRACTION JOINTS @ 5' C-C
EXPANSION JOINTS @ 50' C-C

CONCRETE PAVEMENT
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PROPOSED GRAVEL
12.0" CA-6 AGGREGATE BASE COURSE

CURB & GUTTER LEGEND

- REVERSE PITCH CURB & GUTTER
- STANDARD PITCH CURB & GUTTER
- DEPRESSED CURB & GUTTER
- VARIABLE HEIGHT CURB & GUTTER

No.	Description	Date
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2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

DIMENSIONAL CONTROL & PAVING PLAN - SOUTHWEST

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

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H477a

1" = 40'

C4.1

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MATCHLINE – SEE SHEET C4.3

MATCHLINE – SEE SHEET C4.1

PROPOSED 8' BLACK IMPASSE SECURITY FENCE

FUTURE LANDBANKED PARKING AREA
114 PARKING STALLS

127' (14 STALLS @ 9')
118' (13 STALLS @ 9')
91' (10 STALLS @ 9')
100' (11 STALLS @ 9')
154' (17 STALLS @ 9')

20' P.U.E. PER DOC. NO. R2011-127738

PROPOSED 40' FRONT YARD SETBACK

STORMWATER MANAGEMENT EASEMENT PER DOC. NO. R2011-127738

10' P.U.&D.E.

30' DUPAGE WATER COMMISSION PERMANENT EASEMENT PER DOC. NO. R88-015897

EXISTING STORMWATER MANAGEMENT BASIN

STORMWATER MANAGEMENT EASEMENT PER DOC. NO. R2011-127738

CENTERLINE OF A 10.00' WIDE PERMANENT P.U.E. PER DOC. NO. R97-107103

NAPERVILLE ROAD
(CLW. R.O.W. DOC. NO. R1993-056000)

WARRENVILLE ROAD

ASPH.

CONC. MEDIAN

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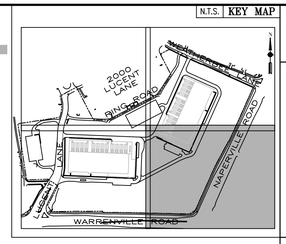
N.T.S. KEY MAP



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0 20' 40' 80'

REFER TO SHEET C4.0 FOR GEOMETRIC NOTES.

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EXPANSION JOINTS @ 50' C-C

CONCRETE PAVEMENT
6.0" PCC PAVEMENT, 4,000 PSI, A/E
4.0" CA-6 BASE COURSE
CONTRACTION JOINTS @ 15' C-C MAX.
EXPANSION JOINTS @ 60' C-C

PROPOSED GRAVEL
12.0" CA-6 AGGREGATE BASE COURSE

CURB & GUTTER LEGEND

REVERSE PITCH CURB & GUTTER

STANDARD PITCH CURB & GUTTER

DEPRESSED CURB & GUTTER

VARIABLE HEIGHT CURB & GUTTER

No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

DIMENSIONAL CONTROL & PAVING PLAN – SOUTHEAST

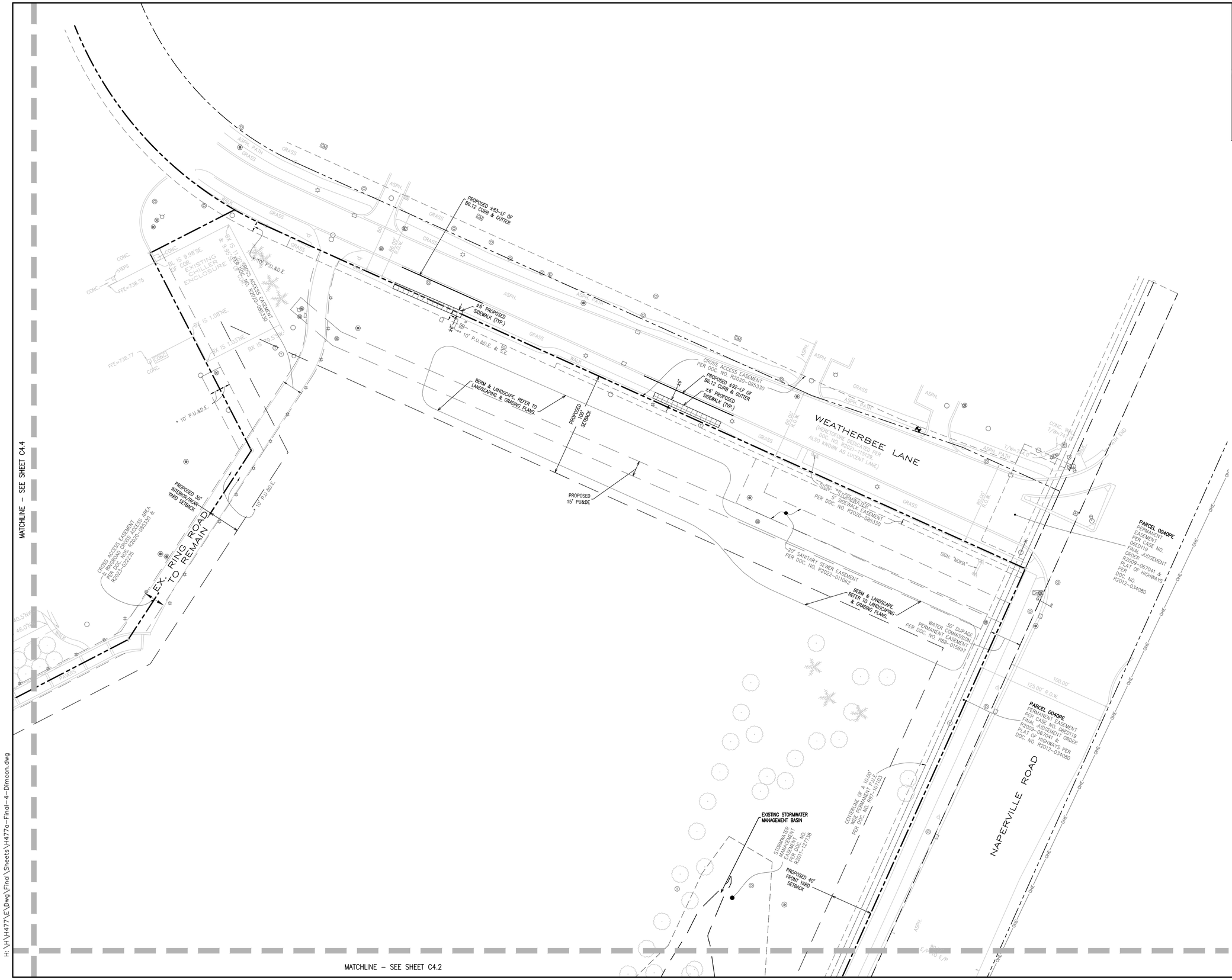
1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

JACOB & HEFNER ASSOCIATES
1333 Butterfield Rd, Suite 300, Downers Grove, IL 60515
PHONE: (630) 652-4600, FAX: (630) 652-4601
www.jacobandhefner.com

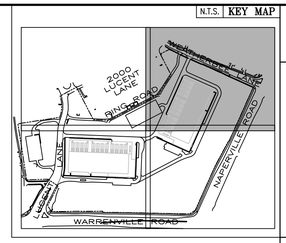
H477a

1" = 40'

C4.2



N.T.S. KEY MAP



N

GRAPHIC SCALE 1"= 40'

0 20' 40' 80'

REFER TO SHEET C4.0 FOR GEOMETRIC NOTES.

PAVEMENT LEGEND

LIGHT DUTY ASPHALT PAVEMENT
2.0" SURFACE COURSE, MIX "D", N50
2.25" HMA BINDER COURSE, IL-19, N50
8.0" CA-6 AGGREGATE BASE COURSE

HEAVY DUTY ASPHALT PAVEMENT
2.0" SURFACE COURSE, MIX "D", N50
3.0" HMA BINDER COURSE, IL-19, N50
12.0" CA-6 AGGREGATE BASE COURSE

SIDEWALK PAVEMENT
5.0" PCC PAVEMENT (4,000 PSI UNREINFORCED, BROOM FINISH)
4.0" CA-6 BASE COURSE
CONTRACTION JOINTS @ 5' C-C
EXPANSION JOINTS @ 50' C-C

CONCRETE PAVEMENT
6.0" PCC PAVEMENT, 4,000 PSI, A/E
4.0" CA-6 BASE COURSE
CONTRACTION JOINTS @ 15' C-C MAX.
EXPANSION JOINTS @ 60' C-C

PROPOSED GRAVEL
12.0" CA-6 AGGREGATE BASE COURSE

CURB & GUTTER LEGEND

REVERSE PITCH CURB & GUTTER

STANDARD PITCH CURB & GUTTER

DEPRESSED CURB & GUTTER

VARIABLE HEIGHT CURB & GUTTER

No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

DIMENSIONAL CONTROL & PAVING PLAN – NORTHEAST

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

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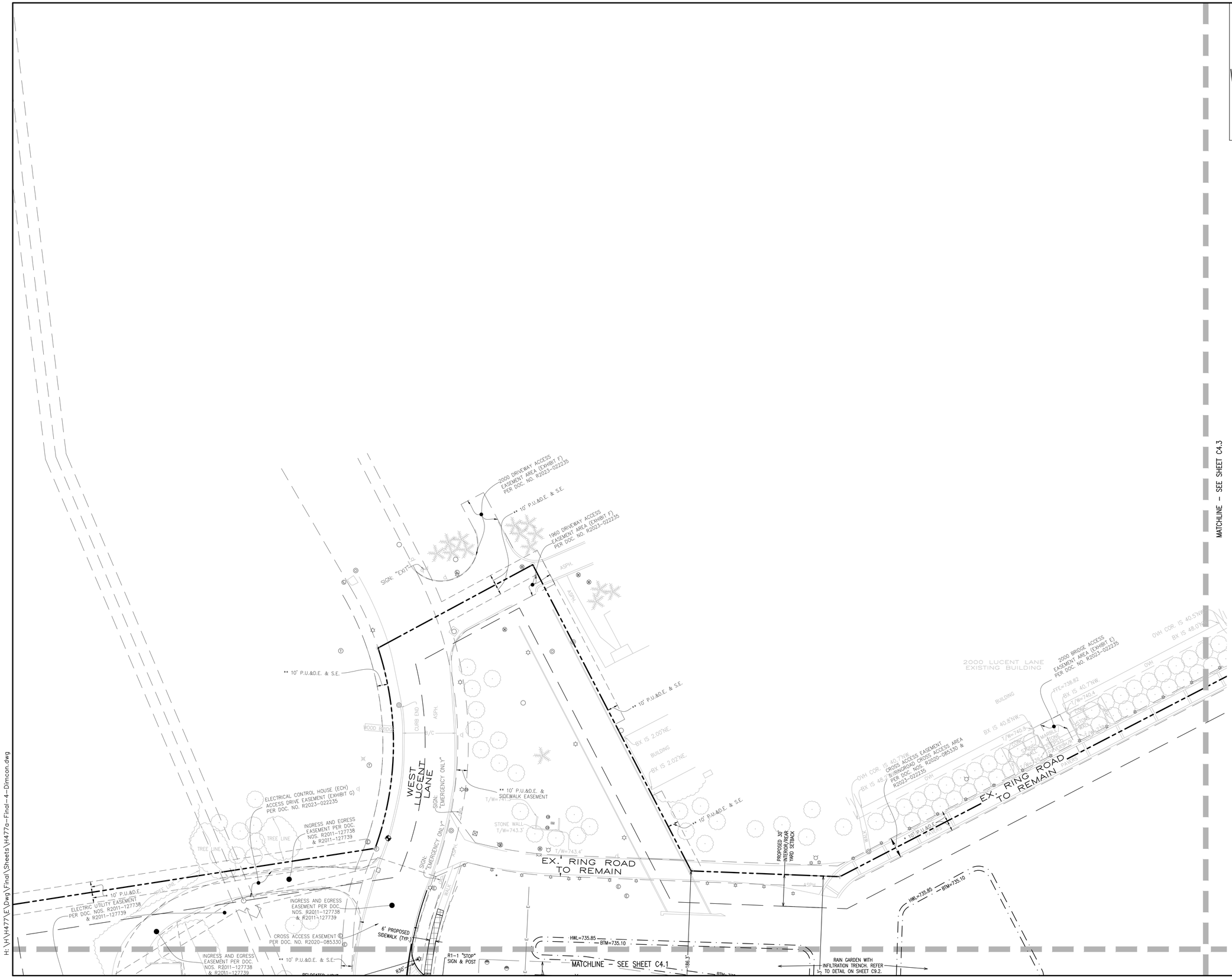
www.jacobandhefner.com

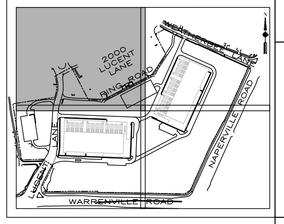
H477a

1" = 40'

C4.3



N.T.S. **KEY MAP**



N

GRAPHIC SCALE 1"= 40'

0 20' 40' 80'

REFER TO SHEET C4.0 FOR GEOMETRIC NOTES.

PAVEMENT LEGEND

LIGHT DUTY ASPHALT PAVEMENT
2.0" SURFACE COURSE, MIX "D", N50
2.25" HMA BINDER COURSE, IL-19, N50
8.0" CA-6 AGGREGATE BASE COURSE

HEAVY DUTY ASPHALT PAVEMENT
2.0" SURFACE COURSE, MIX "D", N50
3.0" HMA BINDER COURSE, IL-19, N50
12.0" CA-6 AGGREGATE BASE COURSE

SIDEWALK PAVEMENT
5.0" PCC PAVEMENT (4,000 PSI UNREINFORCED, BROOM FINISH)
4.0" CA-6 BASE COURSE
CONTRACTION JOINTS @ 5' C-C
EXPANSION JOINTS @ 50' C-C

CONCRETE PAVEMENT
6.0" PCC PAVEMENT, 4,000 PSI, A/E
4.0" CA-6 BASE COURSE
CONTRACTION JOINTS @ 15' C-C MAX.
EXPANSION JOINTS @ 60' C-C

PROPOSED GRAVEL
12.0" CA-6 AGGREGATE BASE COURSE

CURB & GUTTER LEGEND

REVERSE PITCH CURB & GUTTER
STANDARD PITCH CURB & GUTTER
DEPRESSED CURB & GUTTER
VARIABLE HEIGHT CURB & GUTTER

No.	Description	Date
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3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

DIMENSIONAL CONTROL & PAVING PLAN - NORTHWEST

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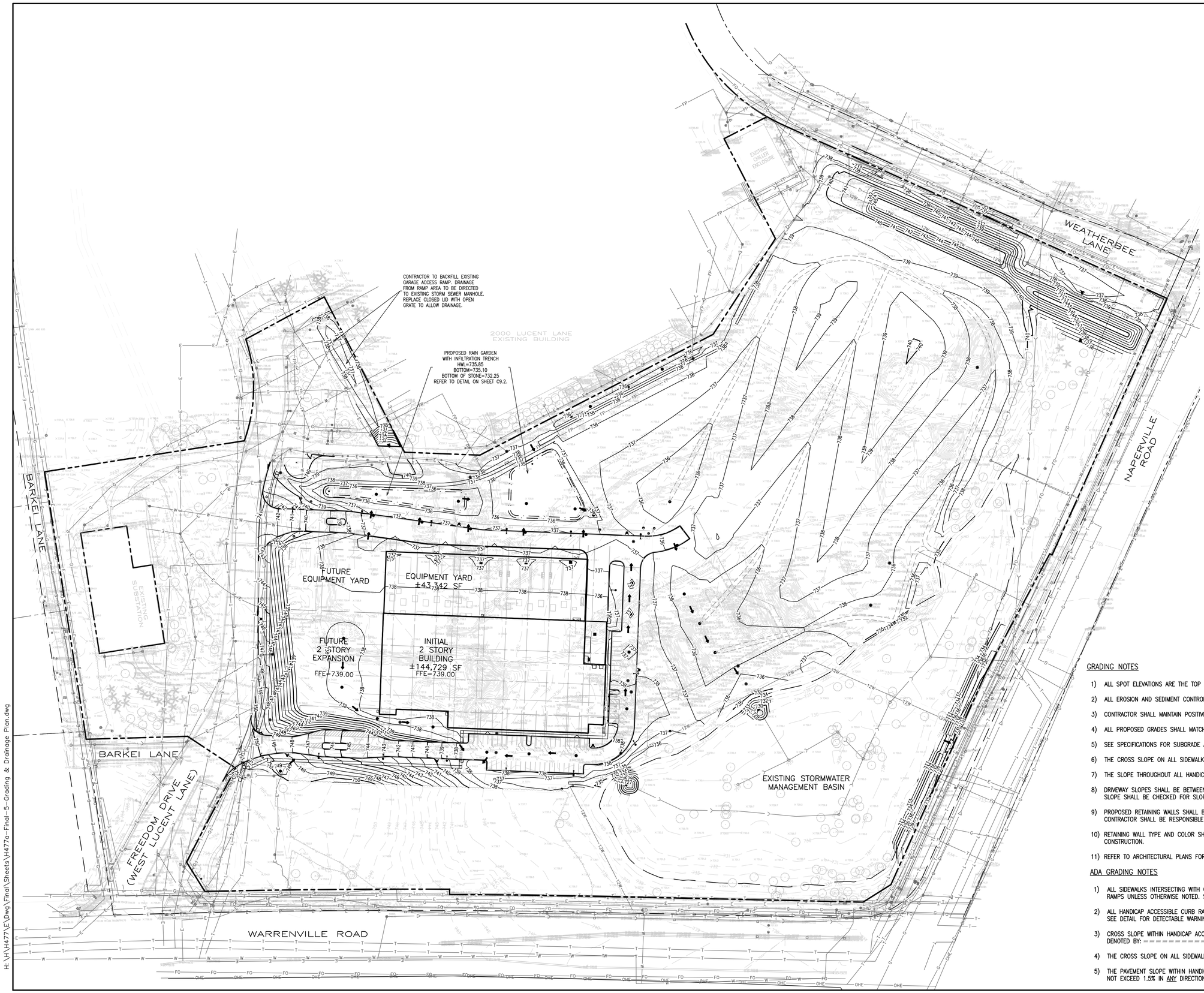
H477a

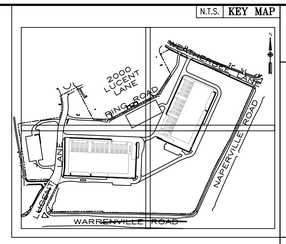
1" = 40'

C4.4

H:\H\H477\E\Dwg\Final\Sheets\H477a-Final-4-Dimcon.dwg



N.T.S. KEY MAP



N

GRAPHIC SCALE 1"= 80'

0 40' 80' 160'

GRADING LEGEND

- XXX.XX × = PROPOSED SPOT GRADE
- T/WALL=XXX.XX × = PROPOSED GRADE AT TOP OF WALL
- B/WALL=XXX.XX × = PROPOSED GRADE AT BOTTOM OF WALL
- EP=XXX.XX × = PROPOSED EDGE OF PAVEMENT
- BC=XXX.XX × = PROPOSED BACK OF CURB
- TDC=XXX.XX × = PROPOSED TOP OF DEPRESSED CURB
- EX=±XXX.XX × = EXISTING ELEVATION
- ±XXX.XX(ME) × = MATCH EXISTING ELEVATION
- = DRAINAGE FLOW ARROWS
- = EMERGENCY OVERLAND FLOW ROUTE

GRADING NOTES

1) ALL SPOT ELEVATIONS ARE THE TOP OF PAVEMENT OR FINISHED GRADE ELEVATIONS.
2) ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO START OF CONSTRUCTION.
3) CONTRACTOR SHALL MAINTAIN POSITIVE SITE DRAINAGE DURING CONSTRUCTION.
4) ALL PROPOSED GRADES SHALL MATCH EXISTING GRADES AT THE PROPERTY LINE.
5) SEE SPECIFICATIONS FOR SUBGRADE AND STRUCTURAL FILL COMPACTION REQUIREMENTS.
6) THE CROSS SLOPE ON ALL SIDEWALKS SHALL NOT EXCEED 1.5%.
7) THE SLOPE THROUGHOUT ALL HANDICAP PARKING STALLS SHALL NOT EXCEED 1.5% IN ALL DIRECTIONS.
8) DRIVEWAY SLOPES SHALL BE BETWEEN 2% AND 4%. IF THE DRIVEWAY LAYOUT OR LOCATION IS ALTERED, THE SLOPE SHALL BE CHECKED FOR SLOPE LIMITS.
9) PROPOSED RETAINING WALLS SHALL BE DESIGNED BY AN ILLINOIS LICENSED STRUCTURAL ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE STRUCTURAL DESIGN.
10) RETAINING WALL TYPE AND COLOR SHALL BE APPROVED BY THE OWNER AND ARCHITECT PRIOR TO CONSTRUCTION.
11) REFER TO ARCHITECTURAL PLANS FOR RAILING AND STAIRS DETAILS.

ADA GRADING NOTES

1) ALL SIDEWALKS INTERSECTING WITH CURBS SHALL BE CONSTRUCTED WITH HANDICAP ACCESSIBLE CURB RAMPS UNLESS OTHERWISE NOTED. SEE DETAIL FOR HANDICAP CURB RAMP CONSTRUCTION.
2) ALL HANDICAP ACCESSIBLE CURB RAMPS SHALL BE CONSTRUCTED WITH DETECTABLE WARNING SURFACES. SEE DETAIL FOR DETECTABLE WARNING SURFACE CONSTRUCTION.
3) CROSS SLOPE WITHIN HANDICAP ACCESSIBLE ROUTE SHALL NOT EXCEED 1.5%. HANDICAP ACCESSIBLE ROUTE DENOTED BY:
4) THE CROSS SLOPE ON ALL SIDEWALKS SHALL NOT EXCEED 1.5%.
5) THE PAVEMENT SLOPE WITHIN HANDICAP ACCESSIBLE PARKING STALLS AND ADJACENT LOADING ZONES SHALL NOT EXCEED 1.5% IN ANY DIRECTION.

No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

GRADING PLAN – OVERALL

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

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H477a

1" = 80'

C5.0

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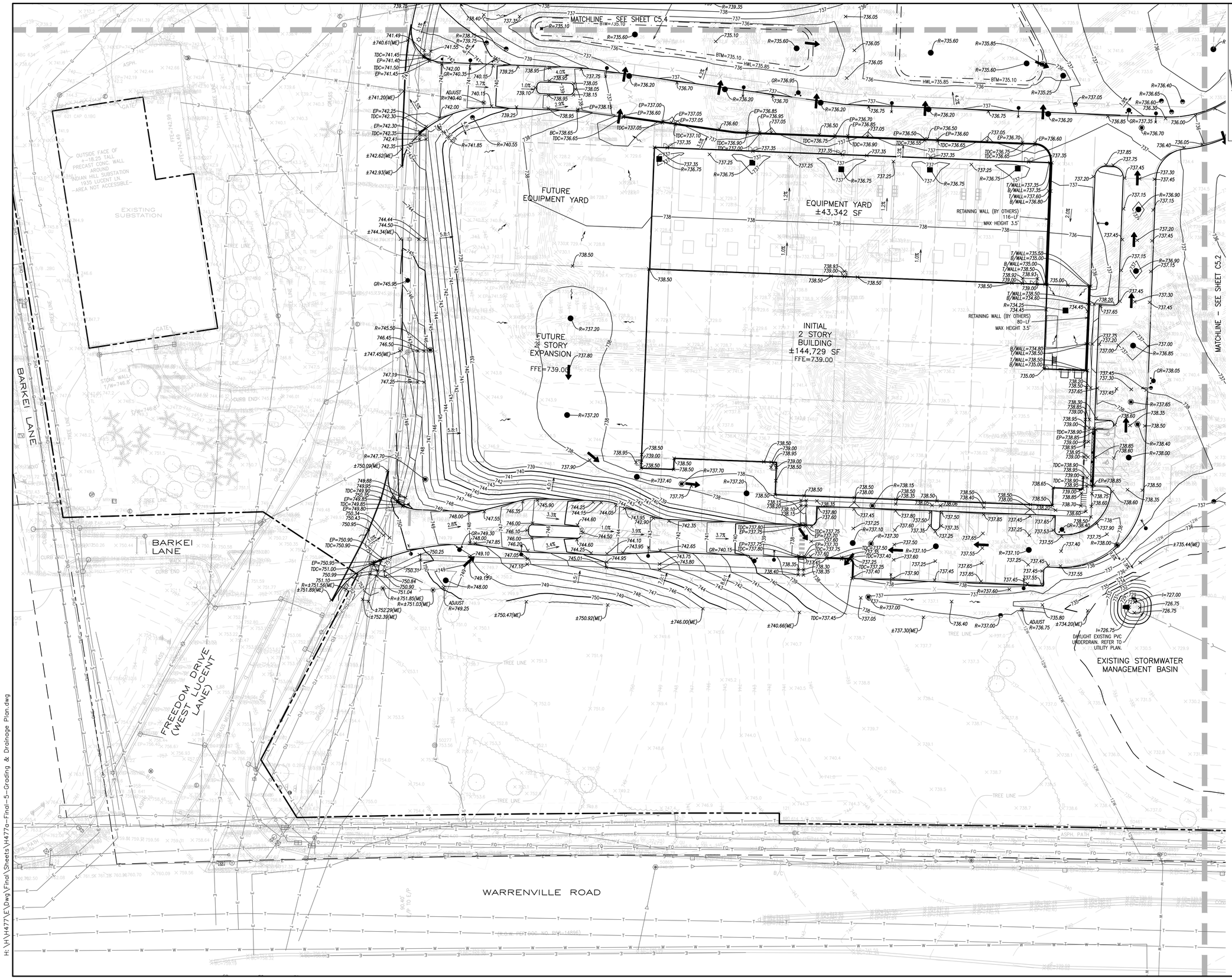

REFER TO SHEET C5.0 FOR GRADING NOTES.

GRADING LEGEND

- XXX.XX = PROPOSED SPOT GRADE
- T/WALL=XXX.XX = PROPOSED GRADE AT TOP OF WALL
- B/WALL=XXX.XX = PROPOSED GRADE AT BOTTOM OF WALL
- EP=XXX.XX = PROPOSED EDGE OF PAVEMENT
- BC=XXX.XX = PROPOSED BACK OF CURB
- TDC=XXX.XX = PROPOSED TOP OF DEPRESSED CURB
- EX=±XXX.XX = EXISTING ELEVATION
- ±XXX.XX(ME) = MATCH EXISTING ELEVATION
- = DRAINAGE FLOW ARROWS
- = EMERGENCY OVERLAND FLOW ROUTE

No.	Description	Date
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GRADING PLAN - SOUTHWEST

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KARIS CRITICAL

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H477a

1" = 40'

C5.1

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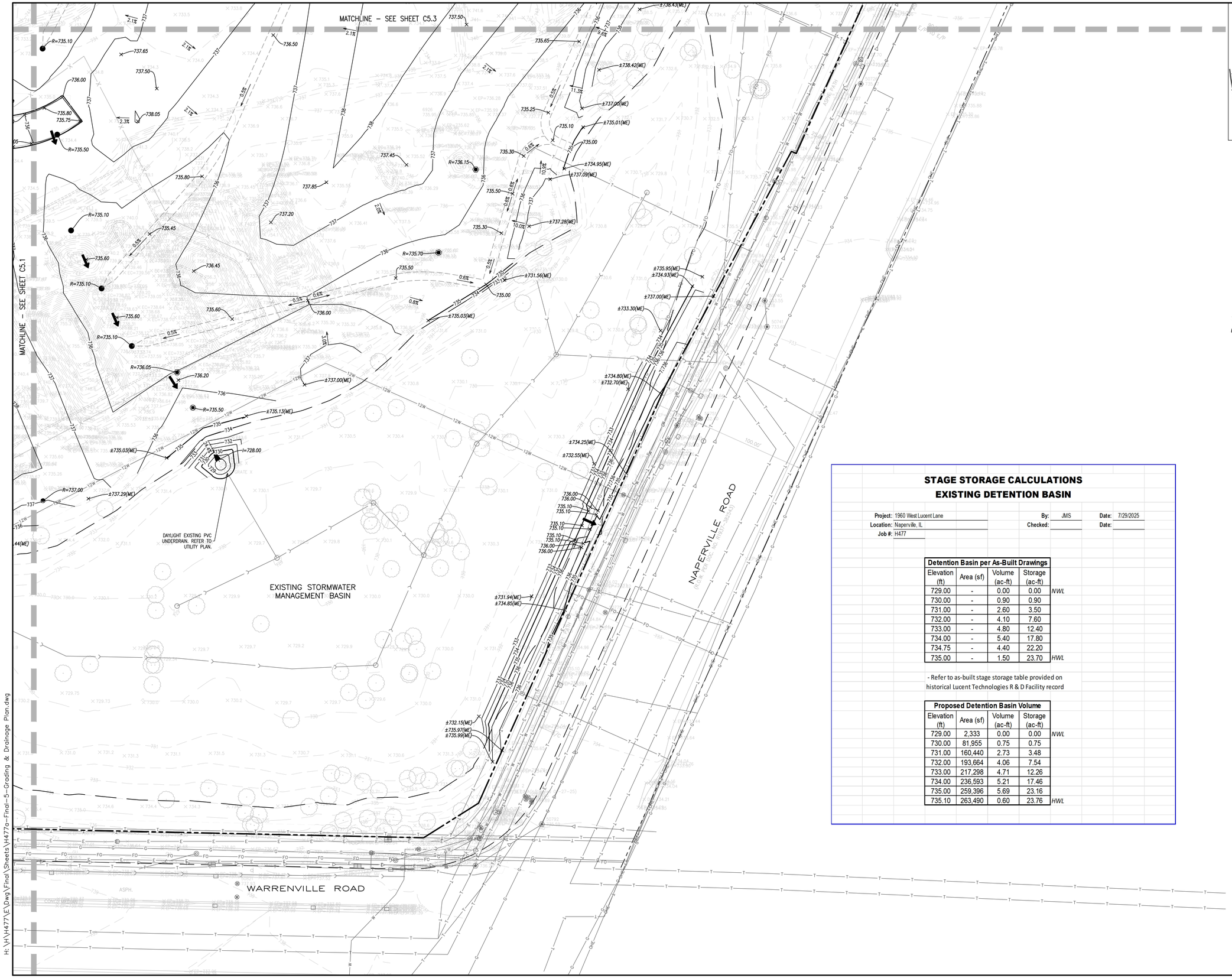

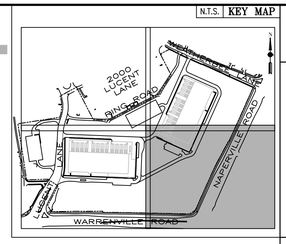

N

GRAPHIC SCALE 1"= 40'

0 20' 40' 80'

REFER TO SHEET C5.0 FOR GRADING NOTES.

GRADING LEGEND

- XXX.XX = PROPOSED SPOT GRADE
- T/WALL=XXX.XX = PROPOSED GRADE AT TOP OF WALL
- B/WALL=XXX.XX = PROPOSED GRADE AT BOTTOM OF WALL
- EP=XXX.XX = PROPOSED EDGE OF PAVEMENT
- BC=XXX.XX = PROPOSED BACK OF CURB
- TDC=XXX.XX = PROPOSED TOP OF DEPRESSED CURB
- EX=±XXX.XX = EXISTING ELEVATION
- ±XXX.XX(ME) = MATCH EXISTING ELEVATION
- = DRAINAGE FLOW ARROWS
- = EMERGENCY OVERLAND FLOW ROUTE

STAGE STORAGE CALCULATIONS
EXISTING DETENTION BASIN

Project: 1960 West Lucent Lane **By:** JMS **Date:** 7/29/2025
Location: Naperville, IL **Checked:** **Date:**
Job #: H477

Detention Basin per As-Built Drawings

Elevation (ft)	Area (sf)	Volume (ac-ft)	Storage (ac-ft)	
729.00	-	0.00	0.00	NWL
730.00	-	0.90	0.90	
731.00	-	2.60	3.50	
732.00	-	4.10	7.60	
733.00	-	4.80	12.40	
734.00	-	5.40	17.80	
734.75	-	4.40	22.20	
735.00	-	1.50	23.70	HWL

- Refer to as-built stage storage table provided on historical Lucent Technologies R & D Facility record

Proposed Detention Basin Volume

Elevation (ft)	Area (sf)	Volume (ac-ft)	Storage (ac-ft)	
729.00	2,333	0.00	0.00	NWL
730.00	81,955	0.75	0.75	
731.00	160,440	2.73	3.48	
732.00	193,664	4.06	7.54	
733.00	217,298	4.71	12.26	
734.00	236,593	5.21	17.46	
735.00	259,396	5.69	23.16	
735.10	263,490	0.60	23.76	HWL

No.	Description	Date
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GRADING PLAN - SOUTHEAST

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H477a
1" = 40'
C5.2

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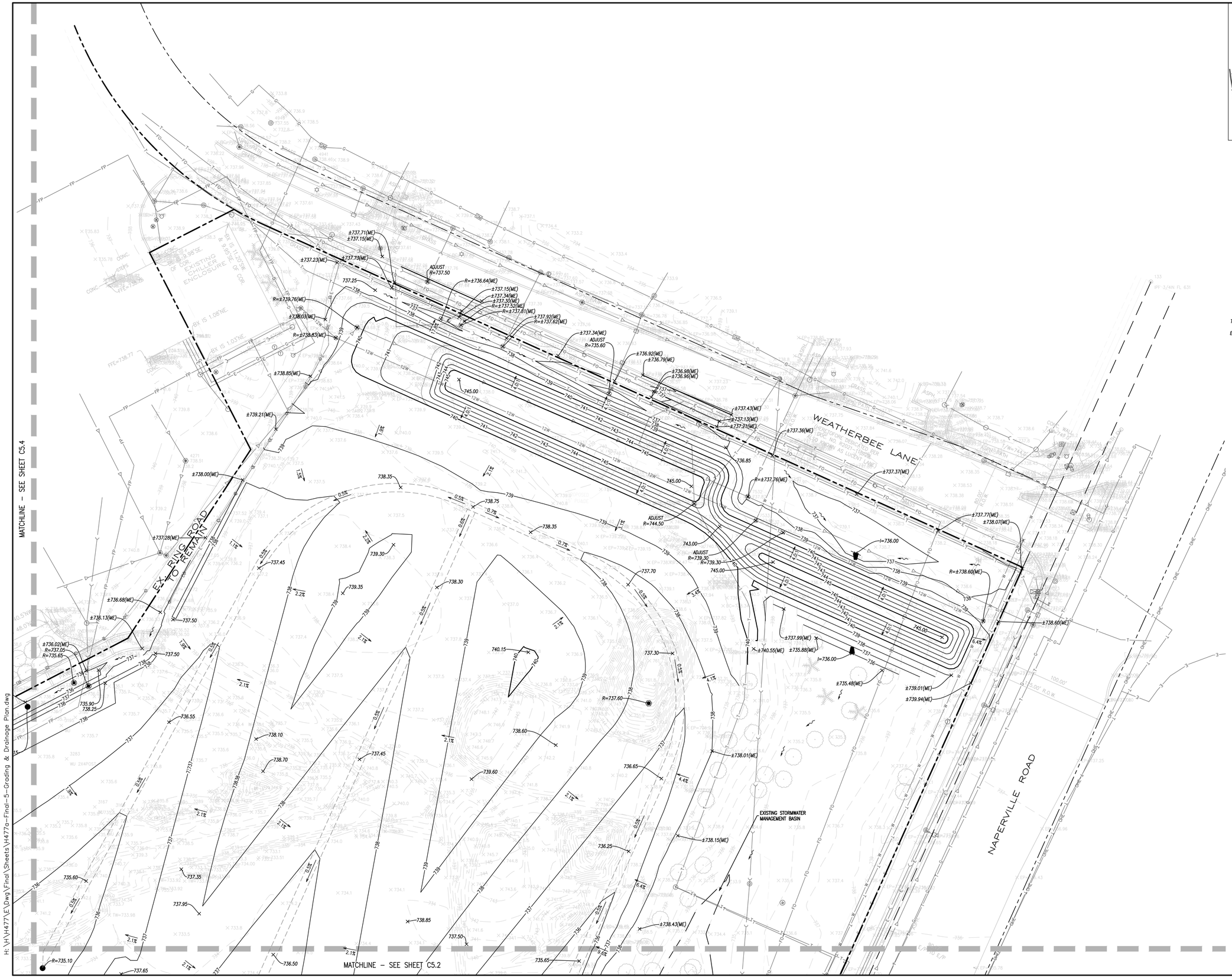
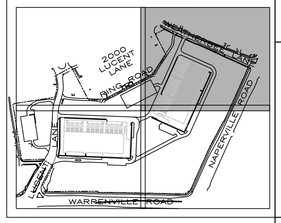


N.T.S. **KEY MAP**



N

GRAPHIC SCALE 1"= 40'

0 20' 40' 80'

REFER TO SHEET C5.0 FOR GRADING NOTES.

GRADING LEGEND

- XXX.XX = PROPOSED SPOT GRADE
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- B/WALL=XXX.XX = PROPOSED GRADE AT BOTTOM OF WALL
- EP=XXX.XX = PROPOSED EDGE OF PAVEMENT
- BC=XXX.XX = PROPOSED BACK OF CURB
- TDC=XXX.XX = PROPOSED TOP OF DEPRESSED CURB
- EX=±XXX.XX = EXISTING ELEVATION
- ±XXX.XX(ME) = MATCH EXISTING ELEVATION
- = DRAINAGE FLOW ARROWS
- = EMERGENCY OVERLAND FLOW ROUTE

No.	Description	Date
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1	ORIGINAL PLAN DATE	4/7/25

GRADING PLAN – NORTHEAST

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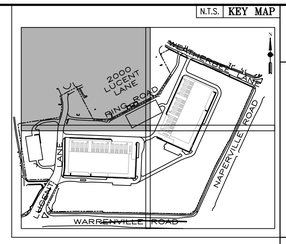
H477a

1" = 40'

C5.3

H:\H\H477\E\Dwg\Final\Sheets\H477a-Final-5-Grading & Drainage Plan.dwg

N.T.S. KEY MAP



N

GRAPHIC SCALE 1"= 40'

0 20' 40' 80'

REFER TO SHEET C5.0 FOR GRADING NOTES.

GRADING LEGEND

- XXX.XX = PROPOSED SPOT GRADE
- T/WALL=XXX.XX = PROPOSED GRADE AT TOP OF WALL
- B/WALL=XXX.XX = PROPOSED GRADE AT BOTTOM OF WALL
- EP=XXX.XX = PROPOSED EDGE OF PAVEMENT
- BC=XXX.XX = PROPOSED BACK OF CURB
- TDC=XXX.XX = PROPOSED TOP OF DEPRESSED CURB
- EX=±XXX.XX = EXISTING ELEVATION
- ±XXX.XX(ME) = MATCH EXISTING ELEVATION
- = DRAINAGE FLOW ARROWS
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No.	Description	Date
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GRADING PLAN – NORTHWEST

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H477a

1" = 40'

C5.4

H:\H\H477\E\Dwg\Final\Sheets\H477a-Final-5-Grading & Drainage Plan.dwg

ADA GRADING NOTES

1) ALL SIDEWALKS INTERSECTING WITH CURBS SHALL BE CONSTRUCTED WITH HANDICAP ACCESSIBLE CURB RAMPS UNLESS OTHERWISE NOTED. SEE DETAIL FOR HANDICAP CURB RAMP CONSTRUCTION.

2) ALL HANDICAP ACCESSIBLE CURB RAMPS SHALL BE CONSTRUCTED WITH DETECTABLE WARNING SURFACES. SEE DETAIL FOR DETECTABLE WARNING SURFACE CONSTRUCTION.

3) CROSS SLOPE WITHIN HANDICAP ACCESSIBLE ROUTE SHALL NOT EXCEED 1.5%. HANDICAP ACCESSIBLE ROUTE DENOTED BY:

4) THE CROSS SLOPE ON ALL SIDEWALKS SHALL NOT EXCEED 1.5%.

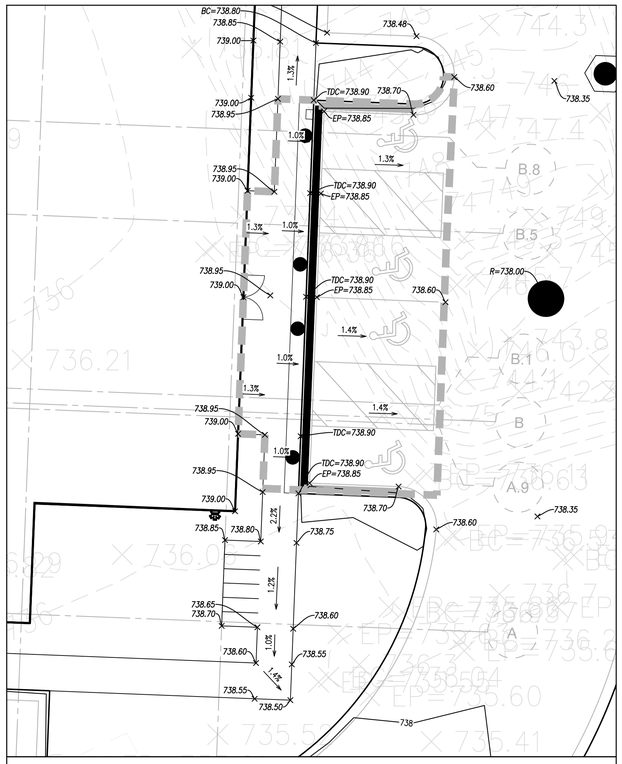
5) THE PAVEMENT SLOPE WITHIN HANDICAP ACCESSIBLE PARKING STALLS AND ADJACENT LOADING ZONES SHALL NOT EXCEED 1.5% IN ANY DIRECTION.

6) REFER TO SHEET C5.0 FOR OVERALL GRADING PLAN AND NOTES.

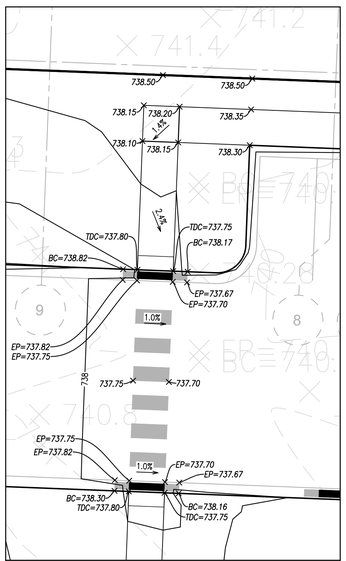
GRADING LEGEND

- XXX.XX = PROPOSED SPOT GRADE
- BC=XXX.XX = PROPOSED BACK OF CURB
- EP=XXX.XX = PROPOSED EDGE OF PAVEMENT
- TDC=XXX.XX = PROPOSED TOP OF DEPRESSED CURB
- R=XXX.XX = PROPOSED RIM ELEVATION
- EX. R=±XXX.XX = EXISTING RIM ELEVATION
- ±XXX.XX(ME) = MATCH EXISTING ELEVATION
- = DRAINAGE FLOW ARROWS
- = EMERGENCY OVERLAND FLOW ROUTE

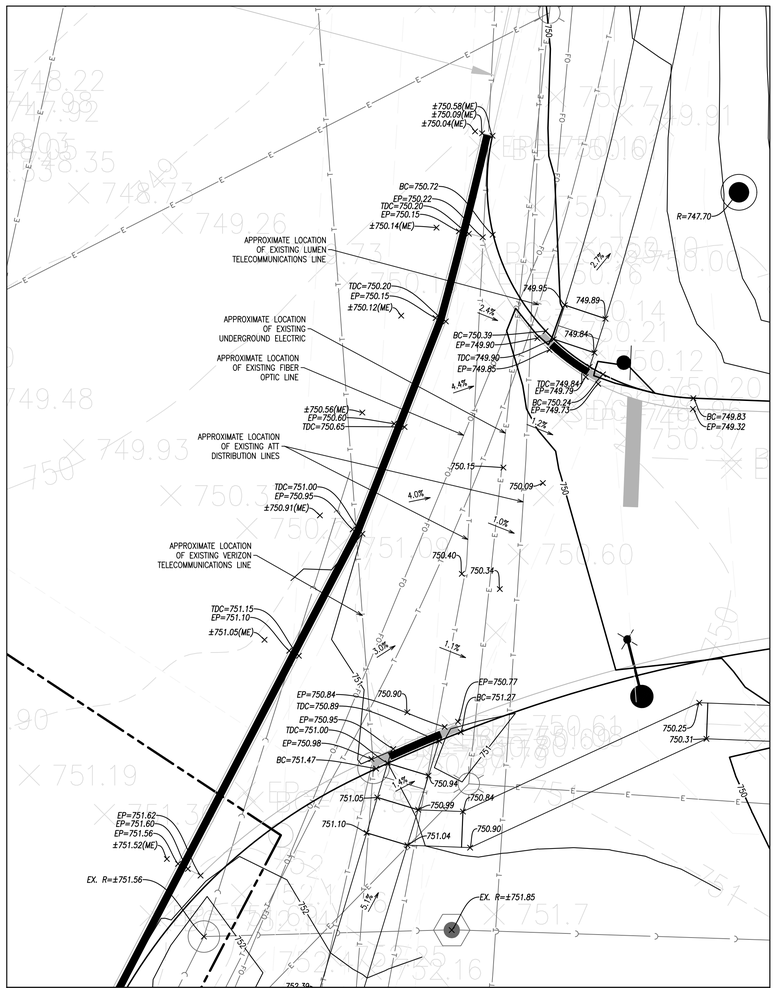
GRAPHIC SCALE 1"=10'
0 5' 10' 20'



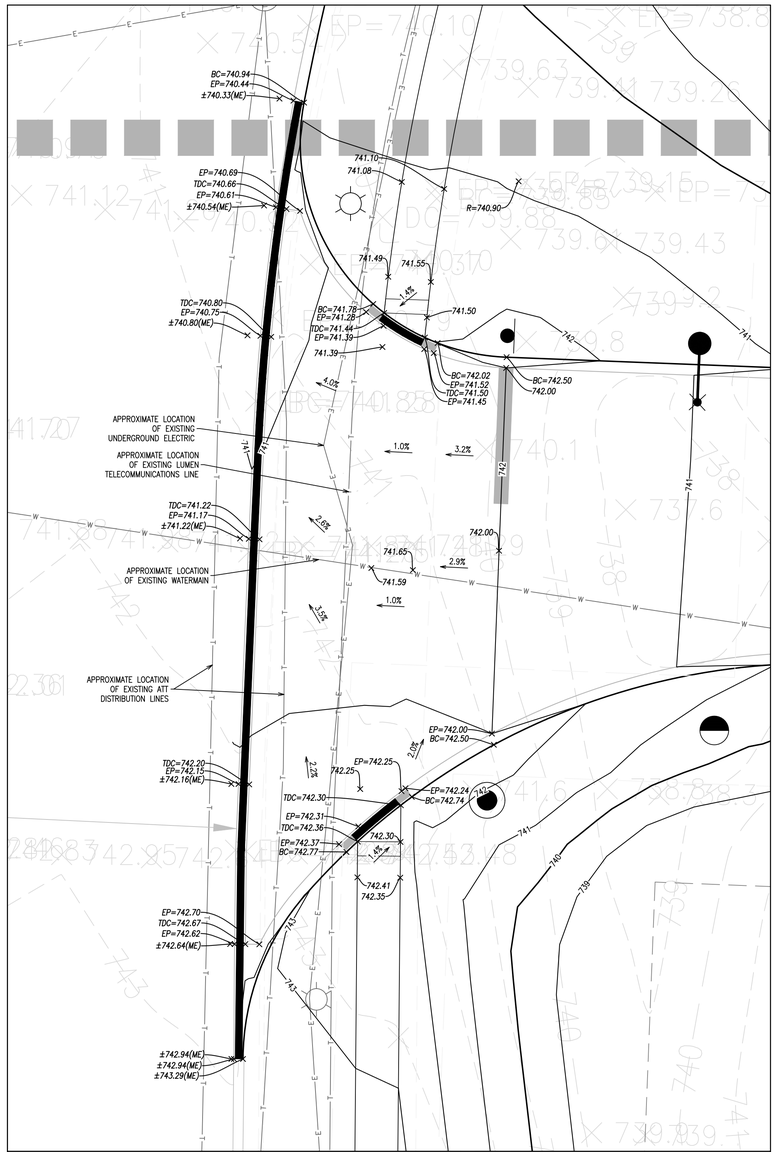
DETAILED GRADING: ADA PARKING SOUTHEAST



DETAILED GRADING: SOUTH CROSSWALK



DETAILED GRADING: SOUTHWEST DRIVEWAY



DETAILED GRADING: NORTHWEST DRIVEWAY

No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

DETAILED GRADING PLAN

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

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H477a
1" = 10'
C5.5

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DEPARTMENT OF PUBLIC UTILITIES – ELECTRIC GENERAL NOTES

1) THE DEVELOPER SHALL COORDINATE SITE CONSTRUCTION WITH THE DEPARTMENT OF PUBLIC UTILITIES – ELECTRIC (DPU–E) TO ALLOW ELECTRIC FACILITIES TO BE INSTALLED PRIOR TO PAVING AND CURBING. DPU–E REQUIRES 30 WORKING DAYS ADVANCE WRITTEN NOTICE PRIOR TO PAVEMENT INSTALLATION TO ALLOW FOR THE INSTALLATION OF ELECTRIC FACILITIES. GRADE ELEVATION MUST BE WITHIN 4 INCHES OF FINAL GRADING BEFORE ELECTRIC FACILITIES CAN BE INSTALLED.

2) ELECTRIC FACILITIES SHALL BE INSTALLED PURSUANT TO SECTION 8–1C–3 OF THE CITY OF NAPERVILLE MUNICIPAL CODE, WHICH REQUIRES A CONSTRUCTION FEE PAYMENT FOR INSTALLATION OF ELECTRIC FACILITIES.

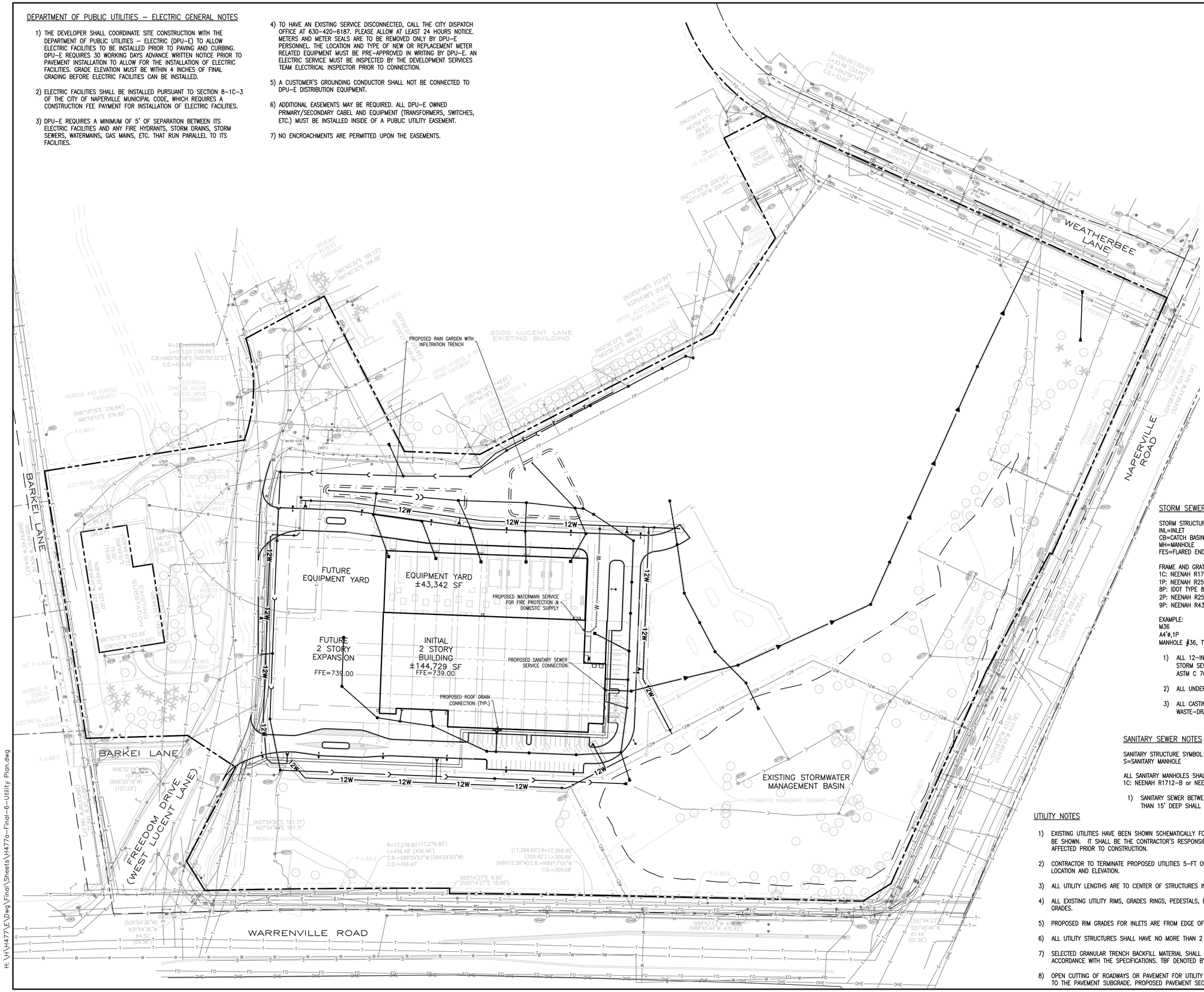
3) DPU–E REQUIRES A MINIMUM OF 5' OF SEPARATION BETWEEN ITS ELECTRIC FACILITIES AND ANY FIRE HYDRANTS, STORM DRAINS, STORM SEWERS, WATERMAINS, GAS MAINS, ETC. THAT RUN PARALLEL TO ITS FACILITIES.

4) TO HAVE AN EXISTING SERVICE DISCONNECTED, CALL THE CITY DISPATCH OFFICE AT 630–420–6187. PLEASE ALLOW AT LEAST 24 HOURS NOTICE. METERS AND METER SEALS ARE TO BE REMOVED ONLY BY DPU–E PERSONNEL. THE LOCATION AND TYPE OF NEW OR REPLACEMENT METER RELATED EQUIPMENT MUST BE PRE–APPROVED IN WRITING BY DPU–E. AN ELECTRIC SERVICE MUST BE INSPECTED BY THE DEVELOPMENT SERVICES TEAM ELECTRICAL INSPECTOR PRIOR TO CONNECTION.

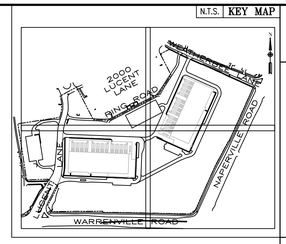
5) A CUSTOMER'S GROUNDING CONDUCTOR SHALL NOT BE CONNECTED TO DPU–E DISTRIBUTION EQUIPMENT.

6) ADDITIONAL EASEMENTS MAY BE REQUIRED. ALL DPU–E OWNED PRIMARY/SECONDARY CABEL AND EQUIPMENT (TRANSFORMERS, SWITCHES, ETC.) MUST BE INSTALLED INSIDE OF A PUBLIC UTILITY EASEMENT.

7) NO ENCROACHMENTS ARE PERMITTED UPON THE EASEMENTS.



N.T.S. **KEY MAP**



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GRAPHIC SCALE 1"= 80'

0 40' 80' 160'

WATER MAIN NOTES

WATERMAIN STRUCTURE SYMBOL LEGEND:
Vv=VALVE VAULT
VB=VALVE BOX
FH=FIRE HYDRANT ASSEMBLY
PC=PRESSURE CONNECTION

1) ALL WATER MAIN SHALL BE DIP CLASS 52, UNLESS NOTED OTHERWISE ON THE PLANS.

2) ALL FIRE HYDRANT LEADS SHALL BE 6–INCH, CLASS 52 DIP UNLESS NOTED OTHERWISE ON THE PLANS.

3) BRASS WEDGES FOR LOCATING WATER MAINS SHALL BE INSTALLED PER SECTION 41–2.05© OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS, AS AMENDED.

4) MAINTAIN A MINIMUM OF 5.5–FT OF COVER AS MEASURED FROM THE PROPOSED GRADE OVER THE WATER MAIN. MAINTAIN HORIZONTAL SEPARATION WITH OTHER UTILITIES PER IEPA REQUIREMENTS.

5) ALL PROPOSED WATER MAIN INSTALLED WITHIN FILL MATERIAL SHALL BE RESTRAINED USING U.S. PIPE FIELD–LOK GASKETS OR APPROVED EQUIVALENT TO A POINT 50–FT PAST ON EACH SIDE THE AREA WHERE THE WATER MAIN IS INSTALLED WITHIN FILL.

STORM SEWER NOTES

STORM STRUCTURE SYMBOL LEGEND:
INL=INLET
CB=CATCH BASIN
MH=MANHOLE
FES=FLARED END SECTION WITH GRATE

FRAME AND GRATE/LID SYMBOL LEGEND:
1C: NEENAH R1772, EJIW 1022–2 TYPE A SOLID COVER
1P: NEENAH R2502 (TYPE D GRATE), EJIW 1022–2 (TYPE M1 GRATE)
8P: IDOT TYPE 8, NEENAH R4340–B, EJIW 6527
2P: NEENAH R2580–C (TYPE C GRATE)
9P: NEENAH R4349–D (BEEHIVE GRATE)

EXAMPLE:
M36
A4'@1P
MANHOLE #36, TYPE A, 4–FT DIAMETER, NEENAH R2502–D FRAME AND GRATE (OPEN)

1) ALL 12–INCH AND 15–INCH STORM SEWER SHALL BE RCP CLASS V. ALL OTHER STORM SEWERS SHALL BE REINFORCED CONCRETE CULVERT PIPE (RCP) CLASS IV, ASTM C 76, WITH "O" RING RUBBER GASKET JOINTS CONFORMING TO ASTM C–443.

2) ALL UNDERDRAINS SHALL BE PER IDOT STANDARDS OR AS SPECIFIED IN THE DETAIL.

3) ALL CASTINGS SHALL BE EMBOSSED WITH A FISH IMAGE AND "DUMP NO WASTE–DRAINS TO WATERWAYS" MESSAGE.

SANITARY SEWER NOTES

SANITARY STRUCTURE SYMBOL LEGEND:
S=SANITARY MANHOLE

ALL SANITARY MANHOLES SHALL HAVE THE FOLLOWING FRAME & GRATE:
1C: NEENAH R1712–B or NEENAH R1772–B

1) SANITARY SEWER BETWEEN 15' AND 20' DEEP SHALL BE PVC SDR 21 AND SEWER LESS THAN 15' DEEP SHALL BE PVC SDR 26.

UTILITY NOTES

1) EXISTING UTILITIES HAVE BEEN SHOWN SCHEMATICALLY FOR THE CONTRACTOR'S GUIDANCE ONLY. ALL EXISTING UTILITIES MAY NOT BE SHOWN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION AND ELEVATION OF ALL UTILITIES THAT MAY BE AFFECTED PRIOR TO CONSTRUCTION.

2) CONTRACTOR TO TERMINATE PROPOSED UTILITIES 5–FT OUTSIDE OF BUILDING FACE UNLESS NOTED OTHERWISE. PLUG AND STAKE LOCATION AND ELEVATION.

3) ALL UTILITY LENGTHS ARE TO CENTER OF STRUCTURES IN LINEAR FEET.

4) ALL EXISTING UTILITY RIMS, GRADES RINGS, PEDESTALS, ETC., SHALL BE RAISED OR LOWERED AS REQUIRED TO MEET PROPOSED GRADES.

5) PROPOSED RIM GRADES FOR INLETS ARE FROM EDGE OF PAVEMENT.

6) ALL UTILITY STRUCTURES SHALL HAVE NO MORE THAN 2 PRECAST ADJUSTING RINGS WITH 6" MAXIMUM HEIGHT ADJUSTMENT.

7) SELECTED GRANULAR TRENCH BACKFILL MATERIAL SHALL BE PLACED AS INDICATED ON THE PLANS AND CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS. TBF DENOTED BY:

8) OPEN CUTTING OF ROADWAYS OR PAVEMENT FOR UTILITY INSTALLATION SHALL BE FILLED WITH COMPACTED TRENCH BACKFILL UP TO THE PAVEMENT SUBGRADE. PROPOSED PAVEMENT SECTION SHALL MATCH EXISTING.

No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

UTILITY PLAN – OVERALL

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

JACOB & HEFNER ASSOCIATES
1333 Butterfield Rd, Suite 300, Downers Grove, IL 60515
PHONE: (630) 652-4600, FAX: (630) 652-4601
www.jacobandhefner.com

H477a

1" = 80'

C6.0

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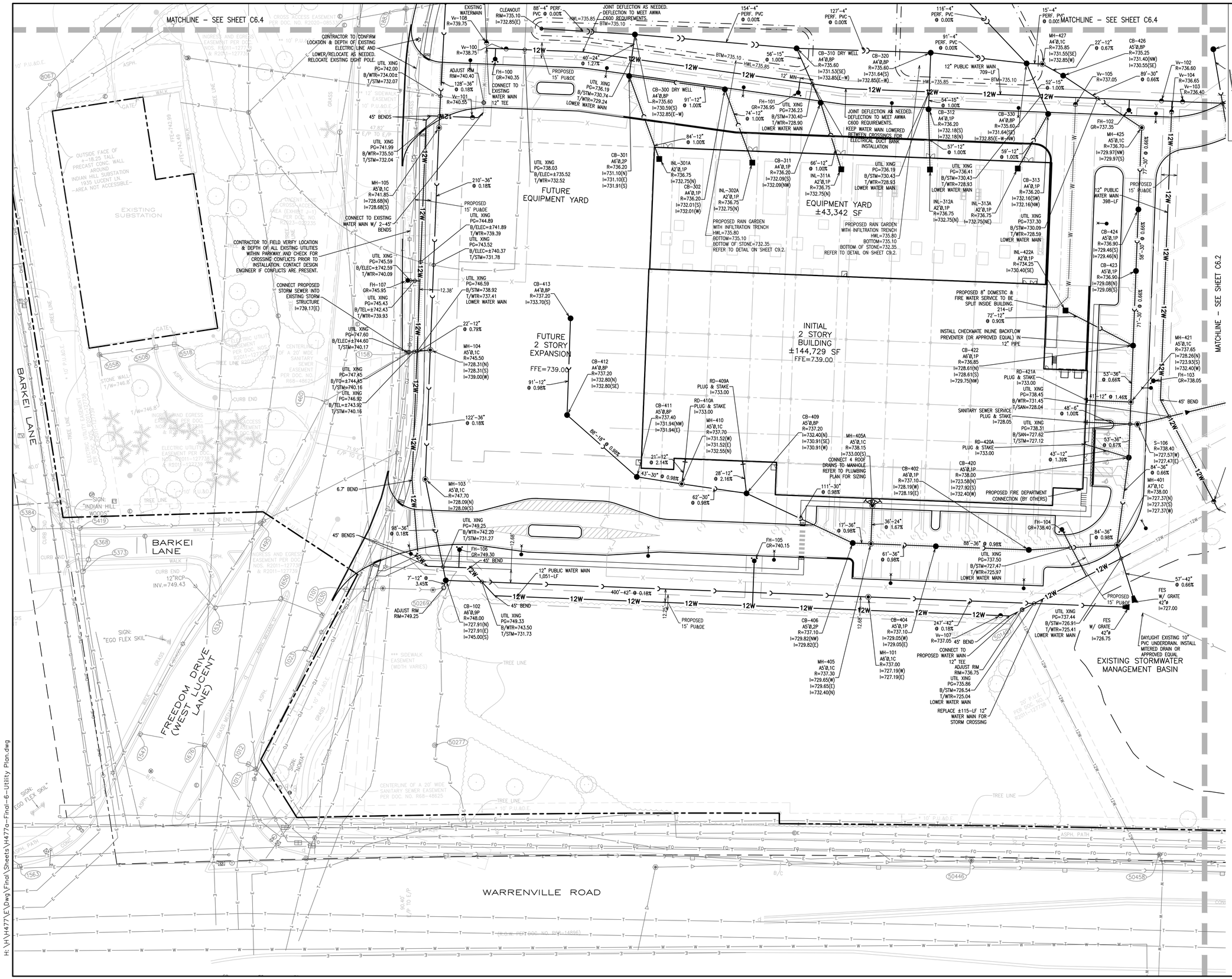

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2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

UTILITY PLAN – SOUTHWEST

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

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H477a

1" = 40'

C6.1

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MATCHLINE – SEE SHEET C6.3

MATCHLINE – SEE SHEET C6.1

CB-206
A5'0,9P
R=735.10
I=729.25(S)

83'-30"
0.30%

12" WATER MAIN STUB
PLUG & STAKE

UTIL XING
PG=736.21
B/STM=728.80
T/WTR=727.30
LOWER WATER MAIN

CB-205
A5'0,1P
R=735.50
I=729.00(S)
I=729.00(N)

92'-42"
0.26%

CB-204
A7'0,8P
R=735.10
I=728.76(N)
I=728.76(SE)

62'-48"
0.27%

CB-203
A7'0,9P
R=735.10
I=728.59(NW)
I=728.59(SE)

61'-48"
0.26%

CB-202
A7'0,8P
R=735.10
I=728.43(NW)
I=728.43(SE)

82'-48"
0.27%

UTIL XING
PG=735.94
B/STM=727.90
T/SAN=727.40

S-102
R=736.15
I=725.03(SW)
I=725.03(NE)

S-103
R=735.70
I=725.42(SW)
I=725.42(NE)

86'-8"
0.45%

272'-8"
0.45%

S-104
R=736.05
I=726.65(W)
I=726.65(NE)

205'-8"
0.40%

BEND

MH-201
A7'0,1C
R=735.50
I=728.21(NW)
I=728.21(SE)

FES
W/ GRATE
48"ø
I=728.00

55'-48"
0.38%

DAYLIGHT EXISTING 10"
PVC UNDERDRAIN. INSTALL
MITERED DRAIN OR
APPROVED EQUAL

Vv-106
R=737.05

CONNECT TO
EXISTING WATER MAIN
12" TEE

EXISTING STORMWATER
MANAGEMENT BASIN

STORMWATER MANAGEMENT EASEMENT
PER DOC. NO. R2011-127738

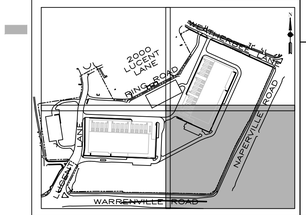
30' DUPAGE WATER
COMMISSION
PERMANENT EASEMENT
PER DOC. NO. R88-015897

NAPERVILLE ROAD

WARRENVILLE ROAD

50623
50615
50619
50605
50079
50101
50125
50138
50134
50166
50184
50581
50589
50502
50486
50507
50510

N.T.S. KEY MAP



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GRAPHIC SCALE 1"= 40'
0 20' 40' 80'

REFER TO SHEET C6.0 FOR UTILITY NOTES.

REFER TO SHEET C3.2 FOR EXISTING UTILITY STRUCTURE TABLE

No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
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1	ORIGINAL PLAN DATE	4/7/25

UTILITY PLAN – SOUTHEAST

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

JACOB & HEFNER
ASSOCIATES
1333 Butterfield Rd, Suite 300, Downers Grove, IL 60515
PHONE: (630) 652-4600, FAX: (630) 652-4601
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H477a

1" = 40'

C6.2

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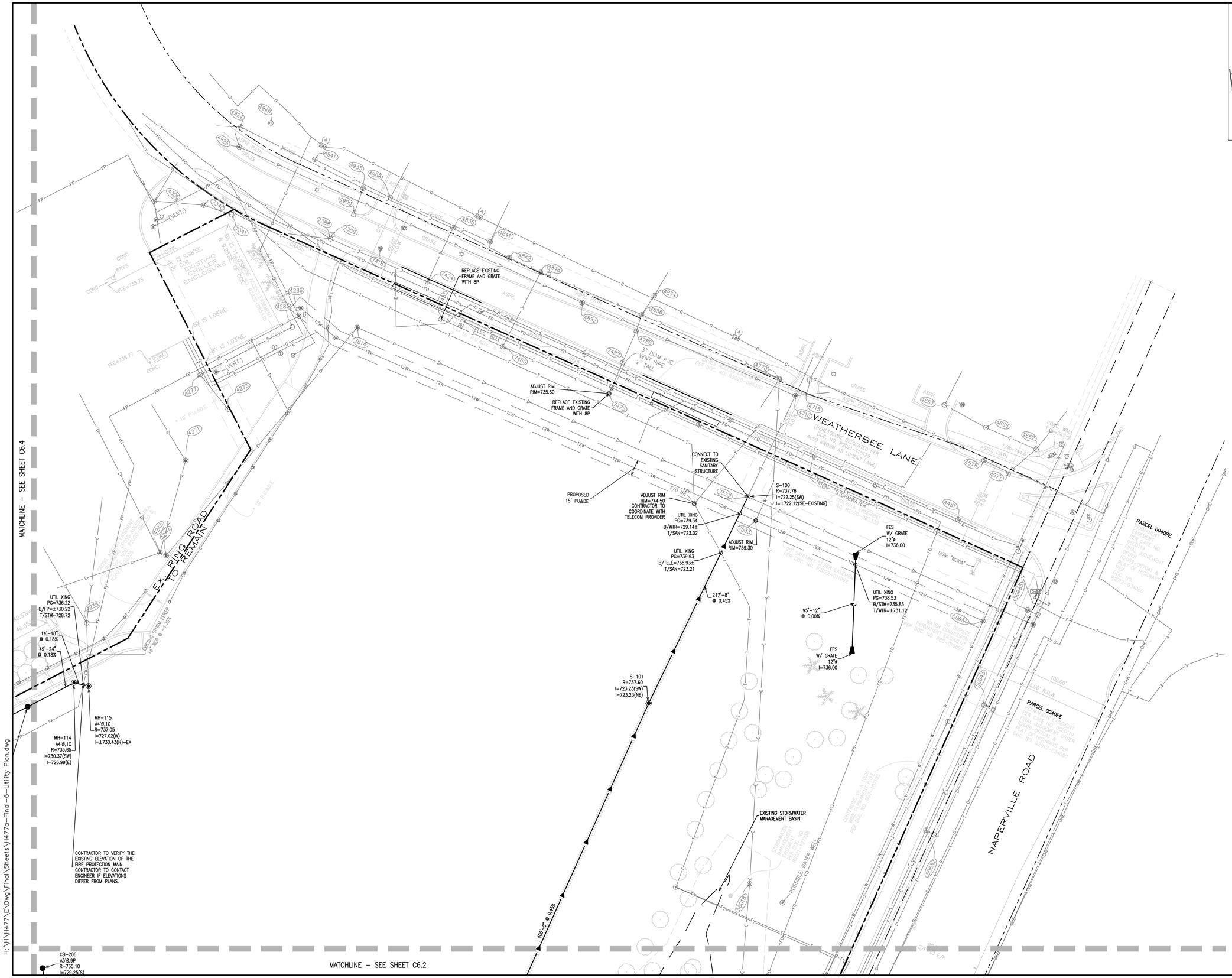

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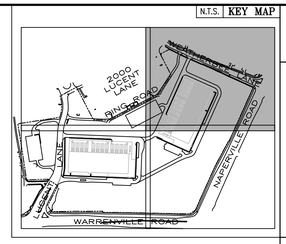

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GRAPHIC SCALE 1"= 40'

0 20' 40' 80'

REFER TO SHEET C6.0 FOR UTILITY NOTES.

REFER TO SHEET C3.3 FOR EXISTING UTILITY STRUCTURE TABLE

No.	Description	Date
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1	ORIGINAL PLAN DATE	4/7/25

UTILITY PLAN – NORTHEAST

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

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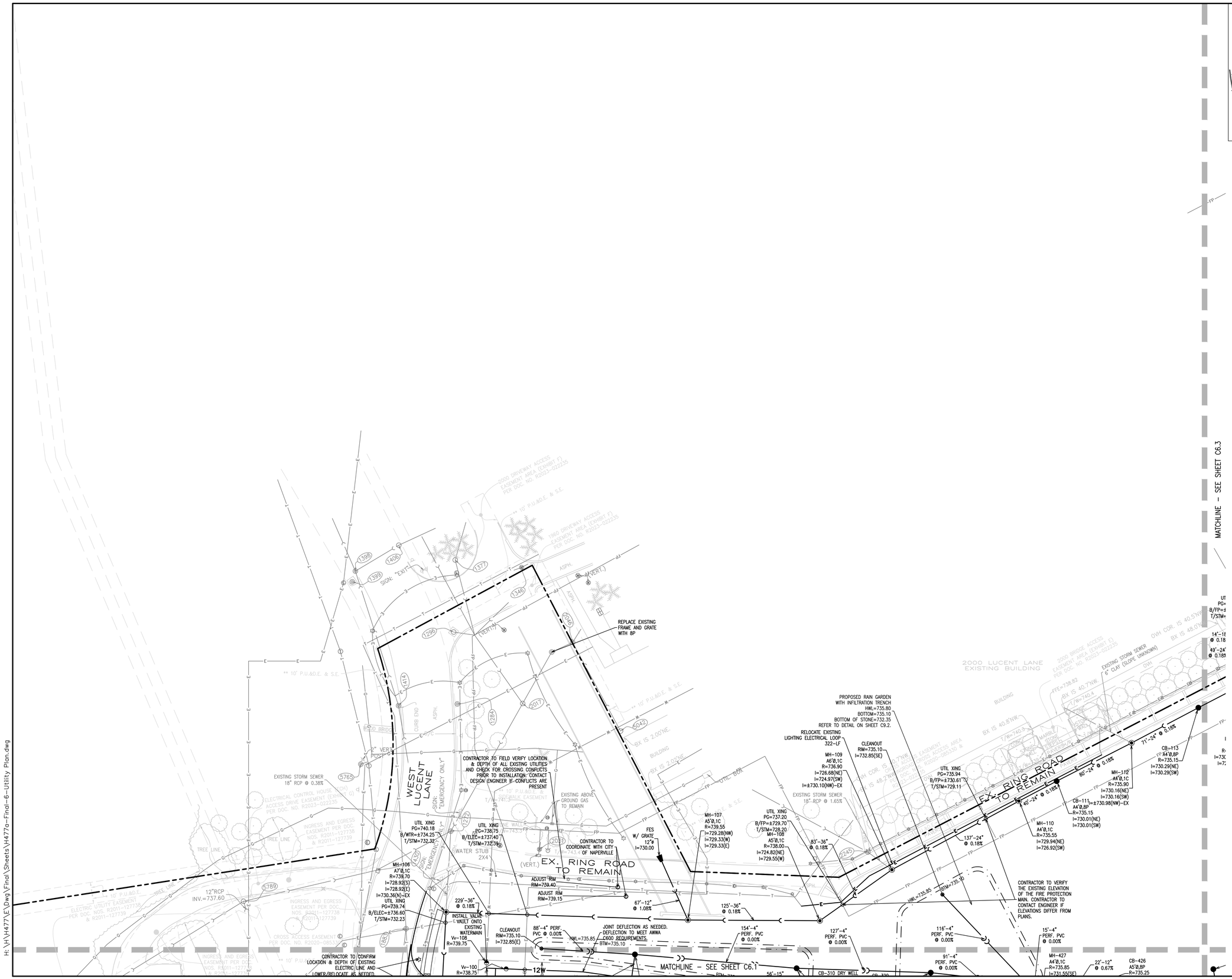
H477a

1" = 40'

C6.3



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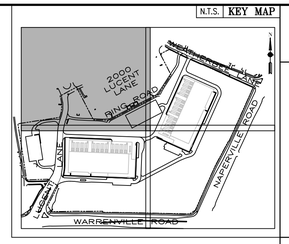

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GRAPHIC SCALE 1"= 40'

0 20' 40' 80'

REFER TO SHEET C6.0 FOR UTILITY NOTES.

REFER TO SHEET C3.4 FOR EXISTING UTILITY STRUCTURE TABLE

No.	Description	Date
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1	ORIGINAL PLAN DATE	4/7/25

UTILITY PLAN - NORTHWEST

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

JACOB & HEFNER ASSOCIATES
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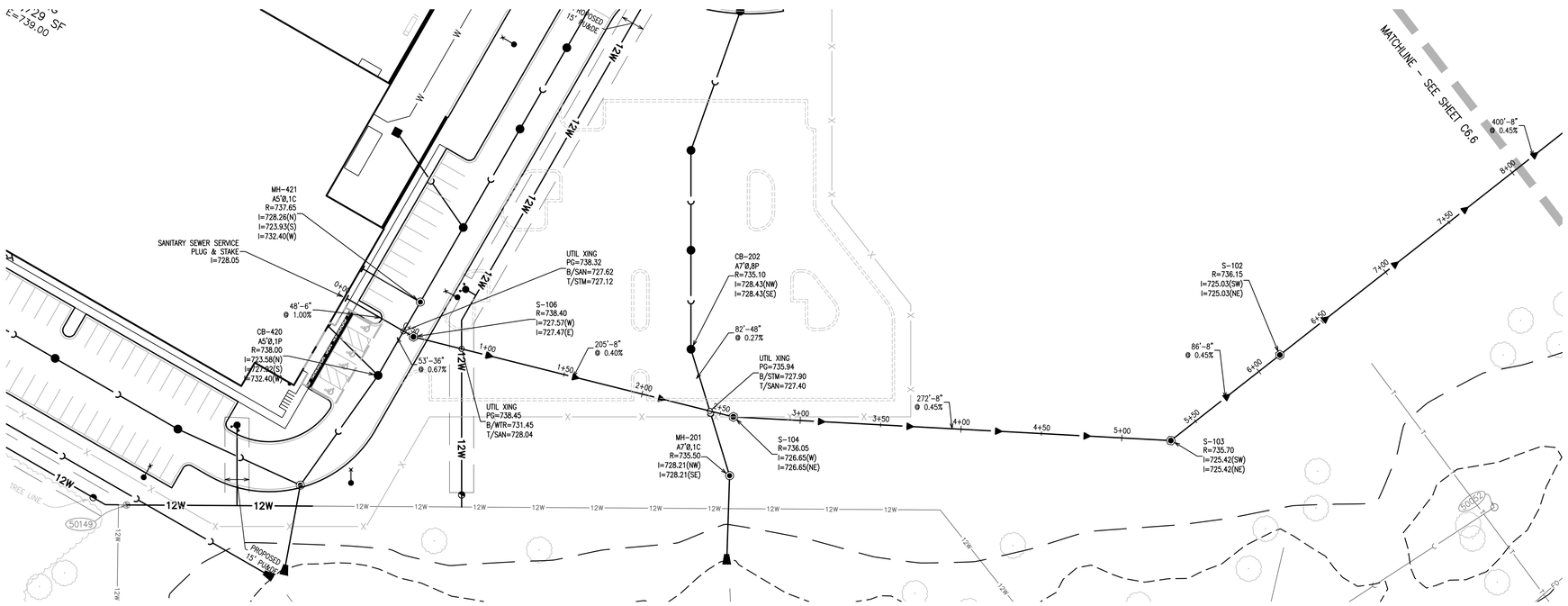
H477a

1" = 40'

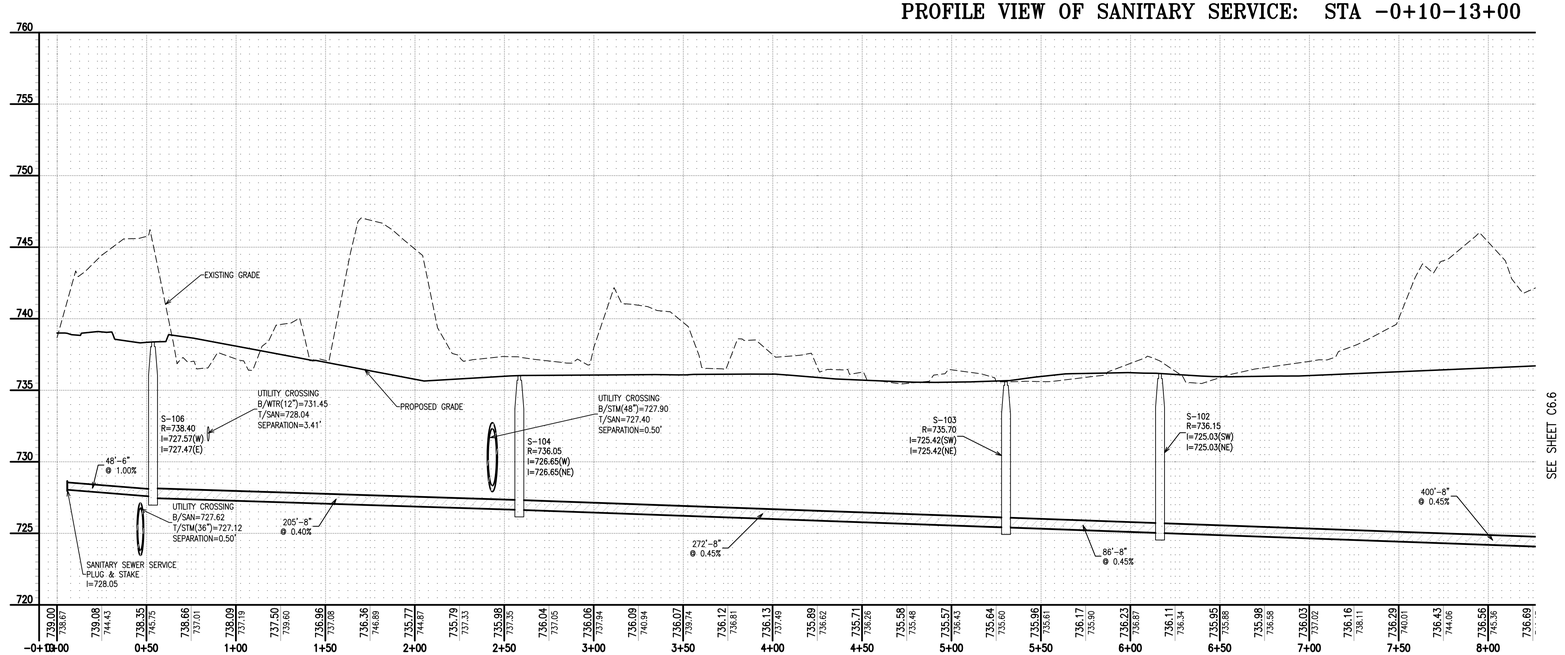
C6.4



GRAPHIC SCALE 1"= 40'

0 20' 40' 80'

PROFILE VIEW OF SANITARY SERVICE: STA -0+10-13+00



SEE SHEET C6.6

PLAN AND PROFILE NOTES

SEE SHEET C6.0 FOR UTILITY NOTES

PROFILE LEGEND

- PROPOSED GROUND SURFACE
- EXISTING GROUND SURFACE
- STORM SEWER
- SANITARY SEWER

No.	Description	Date
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SANITARY PLAN & PROFILE

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

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H477a

H: 1"=40'
V: 1"=5'

C6.5

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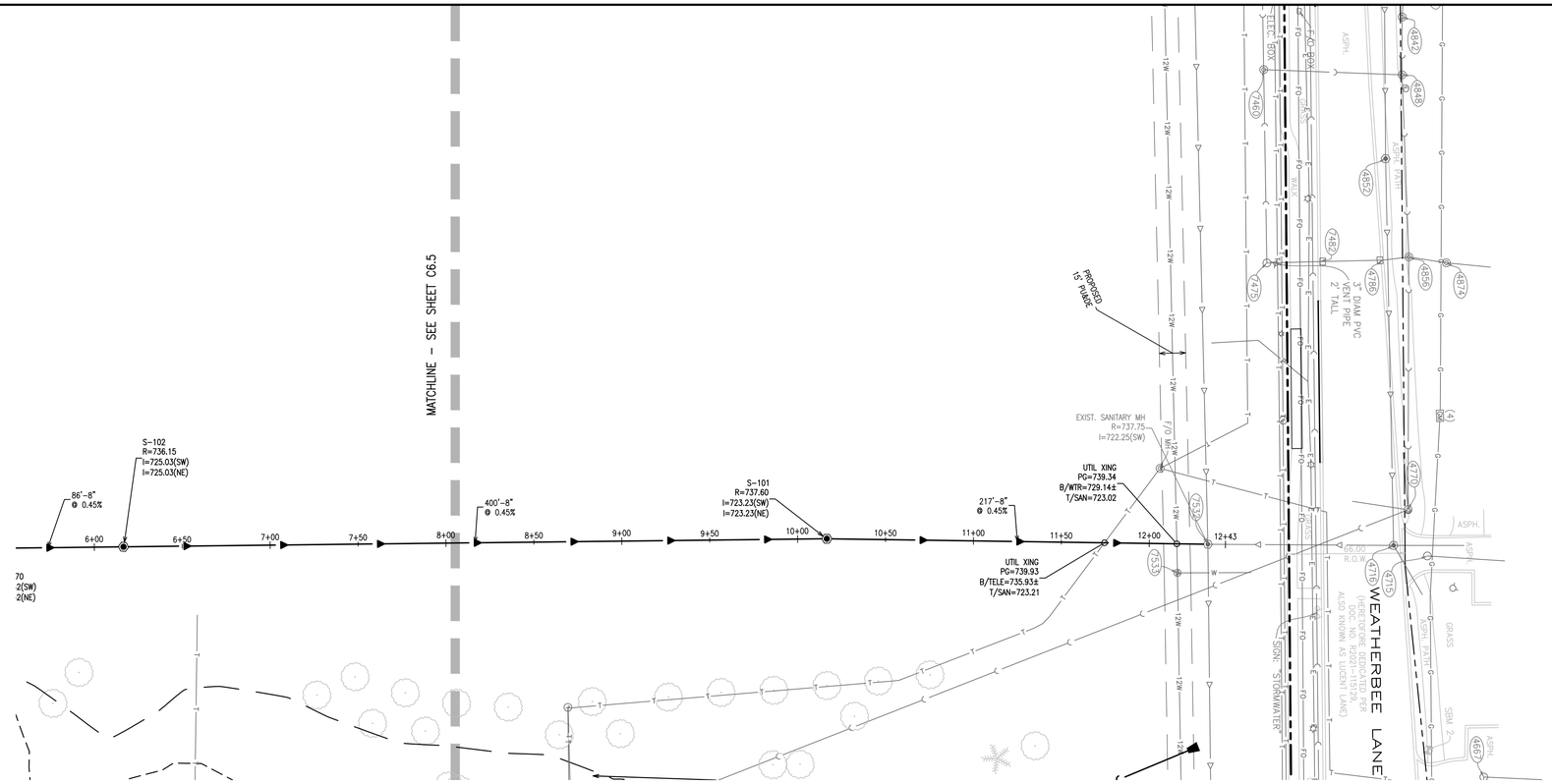

GRAPHIC SCALE 1"= 40'

0 20' 40' 80'

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SANITARY PLAN & PROFILE

1960 WEST LUCENT LANE

NAPERVILLE, ILLINOIS

KARIS CRITICAL

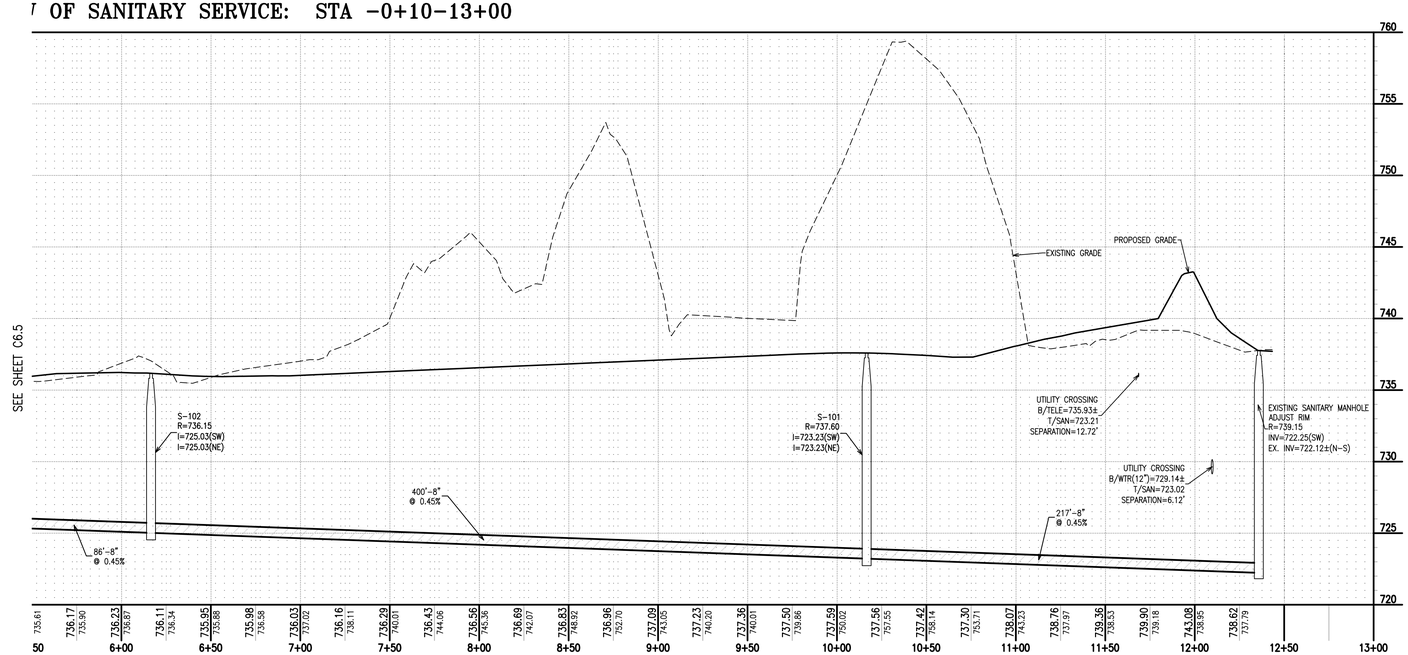
PLAN AND PROFILE NOTES

SEE SHEET C6.0 FOR UTILITY NOTES

PROFILE LEGEND

- PROPOSED GROUND SURFACE
- EXISTING GROUND SURFACE
- STORM SEWER
- SANITARY SEWER

T OF SANITARY SERVICE: STA -0+10-13+00



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H477a

H: 1"=40'
V: 1"=5'

C6.6

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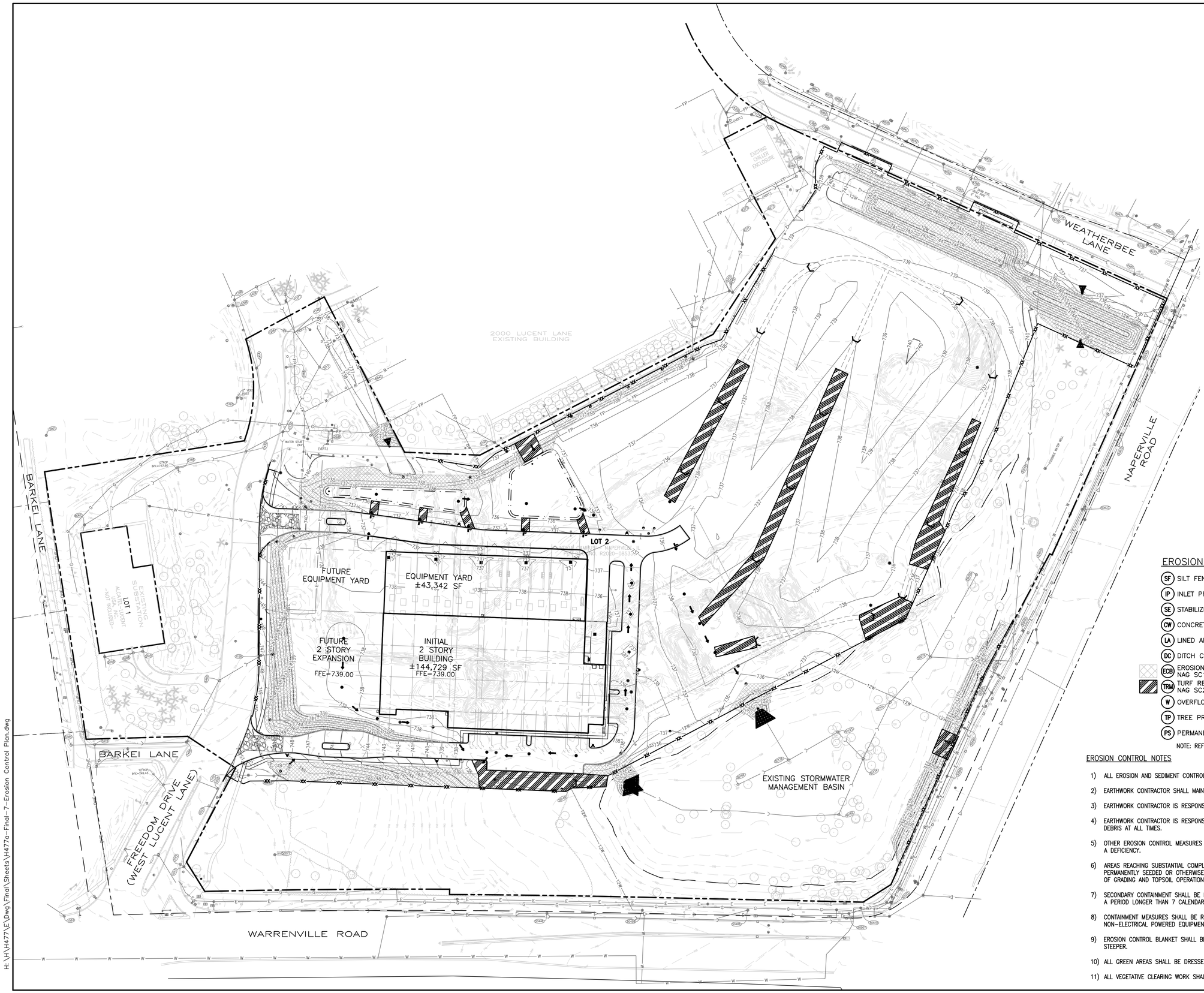
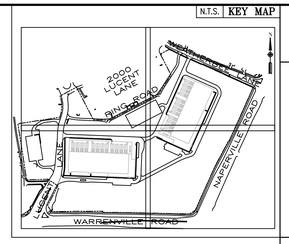


N.T.S. KEY MAP



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GRAPHIC SCALE 1"= 80'

0 40' 80' 160'

EROSION CONTROL LEGEND

- (SF) SILT FENCE
- (IP) INLET PROTECTION
- (SE) STABILIZED CONSTRUCTION ENTRANCE
- (CW) CONCRETE WASHOUT
- (LA) LINED APRON
- (DC) DITCH CHECK
- (ECB) EROSION CONTROL BLANKET NAG SC150 (OR APPROVED EQUAL)
- (TRM) TURF REINFORCEMENT MAT NAG SC250 (OR APPROVED EQUAL)
- (W) OVERFLOW WEIR
- (TP) TREE PROTECTION
- (PS) PERMANENT SEEDING

NOTE: REFER TO SWPP PLAN SHEETS AND DETAILS FOR ADDITIONAL INFORMATION.

EROSION CONTROL NOTES

1) ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO START OF CONSTRUCTION.
2) EARTHWORK CONTRACTOR SHALL MAINTAIN POSITIVE SITE DRAINAGE DURING CONSTRUCTION.
3) EARTHWORK CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL.
4) EARTHWORK CONTRACTOR IS RESPONSIBLE FOR MAINTAINING CLEAN PUBLIC ROADWAYS, FREE OF DIRT AND DEBRIS AT ALL TIMES.
5) OTHER EROSION CONTROL MEASURES SHALL BE IMPLEMENTED SHOULD AN INSPECTION OF THE SITE INDICATE A DEFICIENCY.
6) AREAS REACHING SUBSTANTIAL COMPLETION OF GRADING AND TOPSOIL PLACEMENT OPERATIONS SHALL BE PERMANENTLY SEEDED OR OTHERWISE LANDSCAPED WITHIN 14 DAYS FROM THE SUSPENSION OR COMPLETION OF GRADING AND TOPSOIL OPERATIONS.
7) SECONDARY CONTAINMENT SHALL BE REQUIRED FOR ANY BULK FUEL STORAGE THAT REMAINS ON-SITE FOR A PERIOD LONGER THAN 7 CALENDAR DAYS.
8) CONTAINMENT MEASURES SHALL BE REQUIRED FOR GENERATORS, PUMPS, MIXERS AND OTHER NON-ELECTRICAL POWERED EQUIPMENT THAT ARE TO BE STATIONED FOR LONGER THAN 24 HOURS.
9) EROSION CONTROL BLANKET SHALL BE PROVIDED IN ALL GREEN AREAS WITH SIDE SLOPES OF 4:1 OR STEEPER.
10) ALL GREEN AREAS SHALL BE DRESSED WITH A MINIMUM OF 7" OF TOPSOIL AND PERMANENT SEEDING.
11) ALL VEGETATIVE CLEARING WORK SHALL BE COMPLETED BETWEEN AUGUST 16TH AND APRIL 30TH.

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EROSION CONTROL PLAN – OVERALL

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

JACOB & HEFNER ASSOCIATES
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H477a

1" = 80'

C7.0

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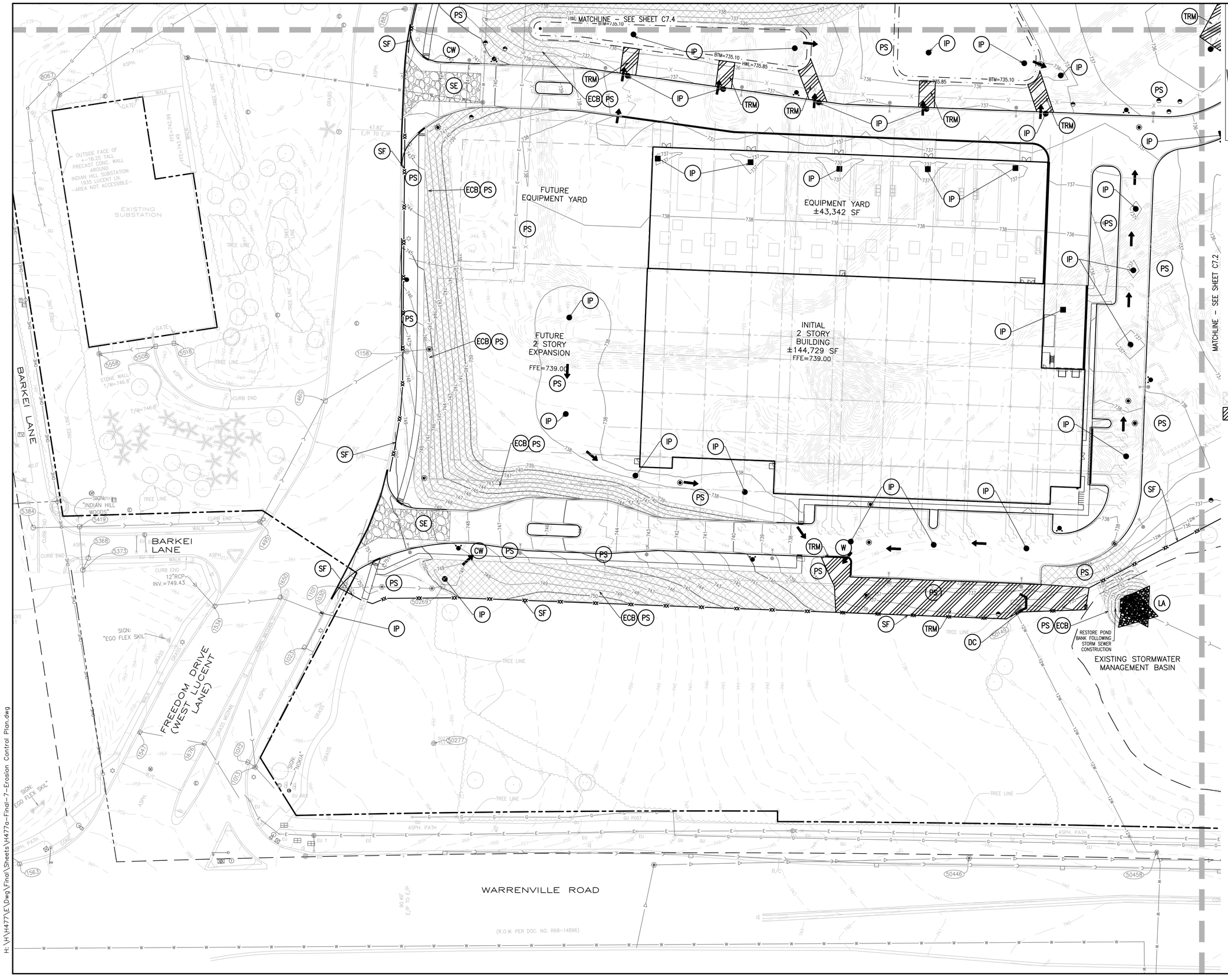
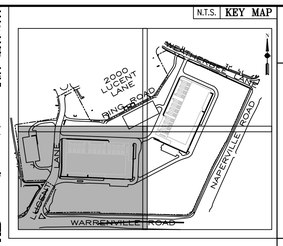


N.T.S. KEY MAP



REFER TO SHEET C7.0 FOR EROSION CONTROL NOTES.

EROSION CONTROL LEGEND

- (SF) SILT FENCE
- (IP) INLET PROTECTION
- (SE) STABILIZED CONSTRUCTION ENTRANCE
- (CW) CONCRETE WASHOUT
- (LA) LINED APRON
- (DC) DITCH CHECK
- (ECB) EROSION CONTROL BLANKET NAG SC150 (OR APPROVED EQUAL)
- (TRM) TURF REINFORCEMENT MAT NAG SC250 (OR APPROVED EQUAL)
- (W) OVERFLOW WEIR
- (TP) TREE PROTECTION
- (PS) PERMANENT SEEDING

NOTE: REFER TO SWPP PLAN SHEETS AND DETAILS FOR ADDITIONAL INFORMATION.

No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

EROSION CONTROL PLAN - SOUTHWEST

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

JACOB & HEFNER ASSOCIATES
1333 Butterfield Rd, Suite 300, Downers Grove, IL 60515
PHONE: (630) 652-4600, FAX: (630) 652-4601
www.jacobandhefner.com

H477a
1" = 40'
C7.1

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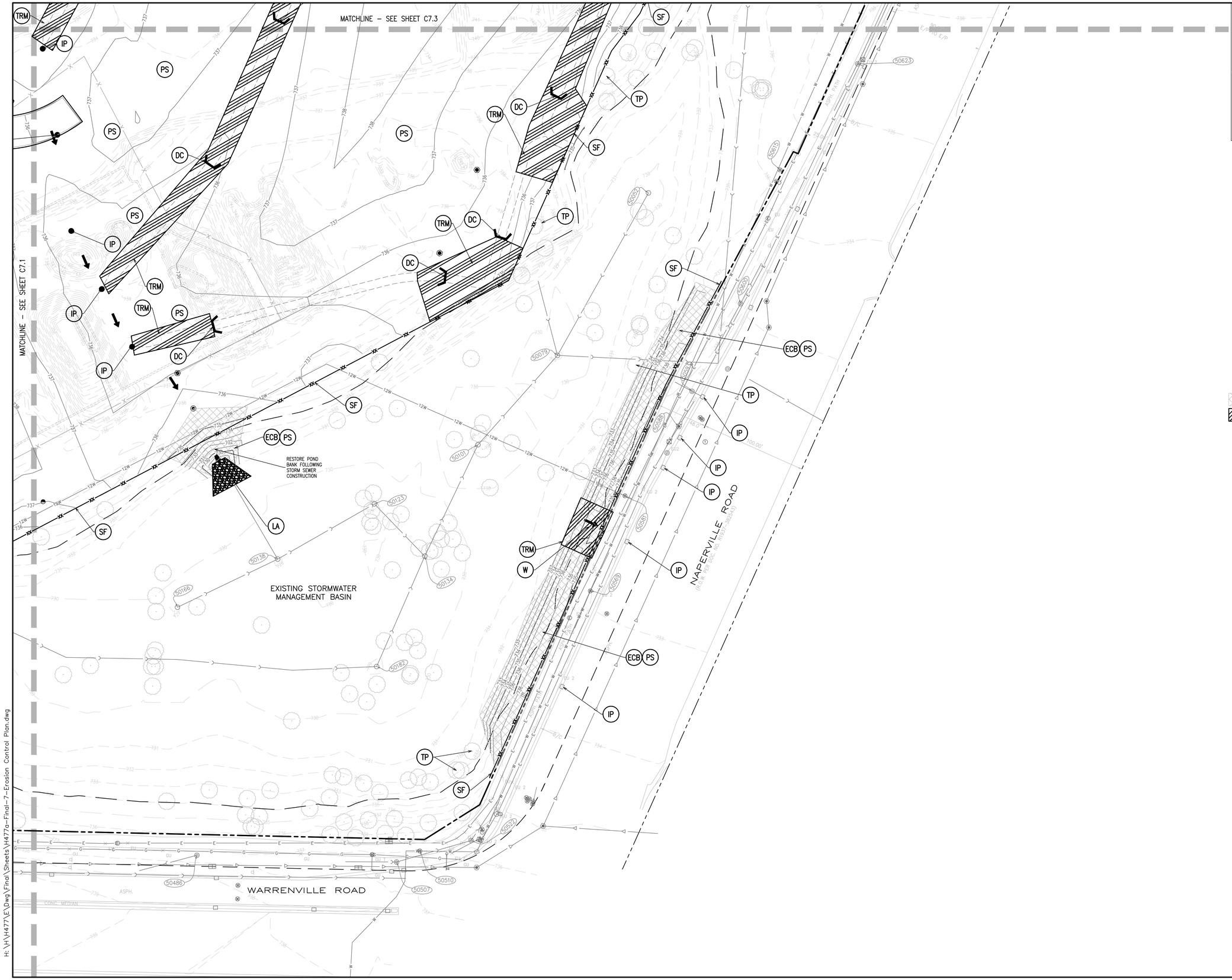
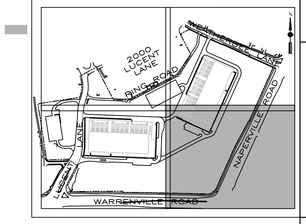


N.T.S. **KEY MAP**



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GRAPHIC SCALE 1"= 40'

0 20' 40' 80'

REFER TO SHEET C7.0 FOR EROSION CONTROL NOTES.

EROSION CONTROL LEGEND

- (SF) SILT FENCE
- (IP) INLET PROTECTION
- (SE) STABILIZED CONSTRUCTION ENTRANCE
- (CW) CONCRETE WASHOUT
- (LA) LINED APRON
- (DC) DITCH CHECK
- (ECB) EROSION CONTROL BLANKET NAG SC150 (OR APPROVED EQUAL)
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NOTE: REFER TO SWPP PLAN SHEETS AND DETAILS FOR ADDITIONAL INFORMATION.

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EROSION CONTROL PLAN – SOUTHEAST

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1" = 40'

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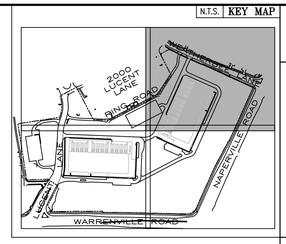
N.T.S. KEY MAP



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REFER TO SHEET C7.0 FOR EROSION CONTROL NOTES.

EROSION CONTROL LEGEND

- (SF) SILT FENCE
- (IP) INLET PROTECTION
- (SE) STABILIZED CONSTRUCTION ENTRANCE
- (CW) CONCRETE WASHOUT
- (LA) LINED APRON
- (DC) DITCH CHECK
- (ECB) EROSION CONTROL BLANKET NAG SC150 (OR APPROVED EQUAL)
- (TRM) TURF REINFORCEMENT MAT NAG SC250 (OR APPROVED EQUAL)
- (W) OVERFLOW WEIR
- (TP) TREE PROTECTION
- (PS) PERMANENT SEEDING

NOTE: REFER TO SWPP PLAN SHEETS AND DETAILS FOR ADDITIONAL INFORMATION.

No.	Description	Date
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2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

EROSION CONTROL PLAN – NORTHEAST

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

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1" = 40'

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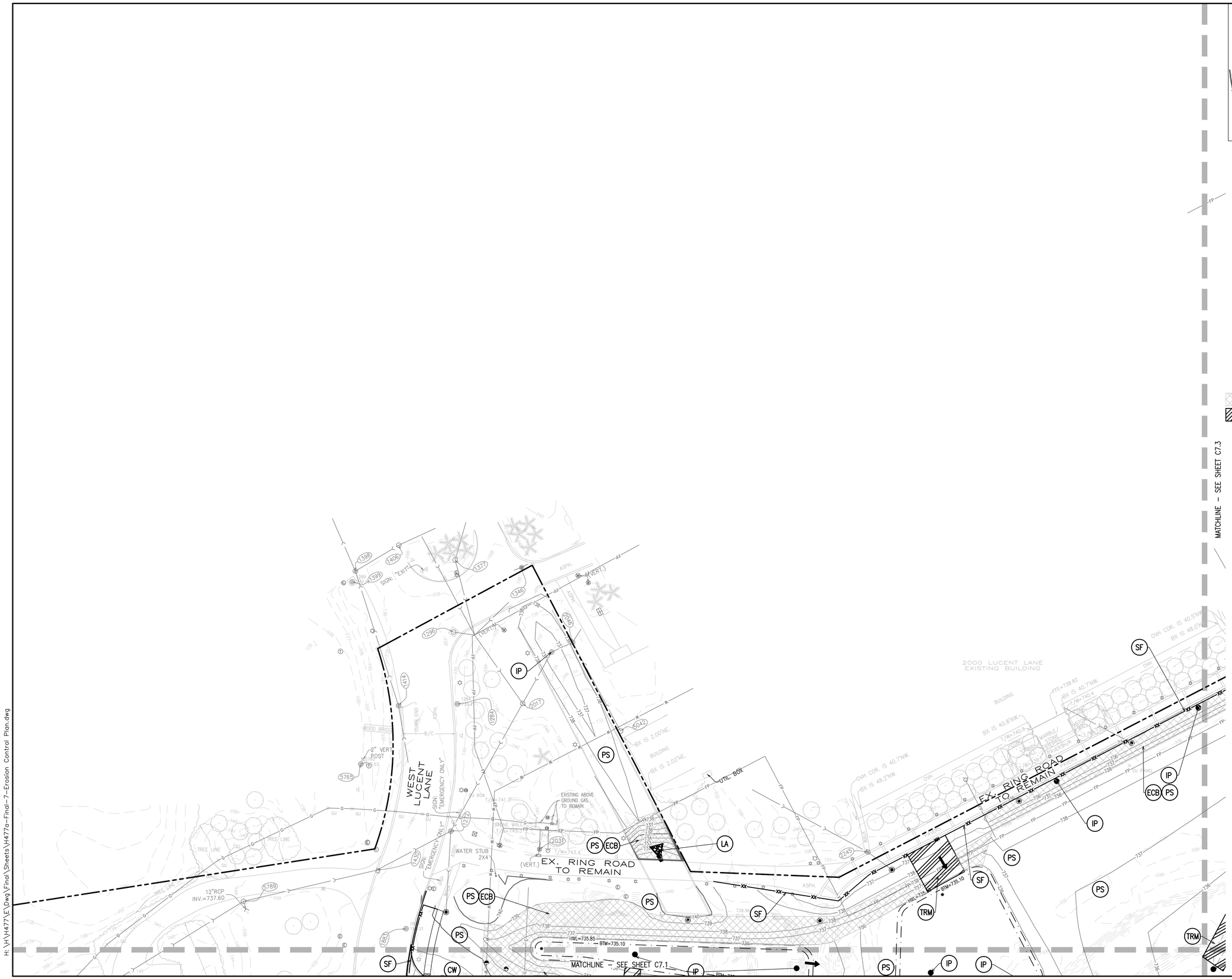
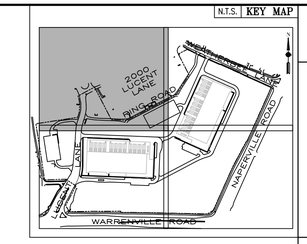


N.T.S. KEY MAP



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GRAPHIC SCALE 1"= 40'

0 20' 40' 80'

REFER TO SHEET C7.0 FOR EROSION CONTROL NOTES.

EROSION CONTROL LEGEND

- (SF) SILT FENCE
- (IP) INLET PROTECTION
- (SE) STABILIZED CONSTRUCTION ENTRANCE
- (CW) CONCRETE WASHOUT
- (LA) LINED APRON
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NOTE: REFER TO SWPP PLAN SHEETS AND DETAILS FOR ADDITIONAL INFORMATION.

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EROSION CONTROL PLAN - NORTHWEST

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NAPERVILLE, ILLINOIS
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CONTROL MEASURE GROUP	CONTROL MEASURE	APPL.	KEY	CONTROL MEASURE CHARACTERISTICS	TEMP.	PERMANT	MAINTENANCE FREQUENCY
VEGETATIVE SOIL COVER	TEMPORARY SEEDING	X	TS	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE.	X		REDO ANY FAILING AREAS.
	PERMANENT SEEDING	X	PS	PROVIDES PERMANENT VEGETATIVE COVER TO CONTROL EROSION, FILTERS SEDIMENT FROM WATER. MAY BE PART OF FINAL LANDSCAPE PLAN.		X	REDO ANY FAILING AREAS.
	DORMANT SEEDING		DS	SAME AS PERMANENT SEEDING EXCEPT IS DONE DURING DORMANT SEASON. HIGHER RATES OF SEED APPLICATION ARE REQUIRED.	X	X	RE-SEED IF NEEDED.
	SODDING		SO	QUICK PERMANENT COVER TO CONTROL EROSION. QUICK WAY TO ESTABLISH VEGETATION FILTER STRIP. CAN BE USED ON STEEP SLOPES OR IN DRAINAGE WAYS WHERE SEEDING MAY BE DIFFICULT.	X	X	N/A
NON VEGETATIVE SOIL COVER	MACHINE TRACKING		GC	PROVIDES SOIL ROUGHING FOR EROSION CONTROL.		X	N/A
	POLYMER		P	ADDED INSURANCE OF A SUCCESSFUL TEMPORARY OR PERMANENT SEEDING. PROVIDES TEMPORARY COVER WHERE VEGETATION CANNOT BE ESTABLISHED.	X	X	REAPPLY EVERY 1½ MONTHS.
	AGGREGATE COVER		AG	PROVIDES SOIL COVER ON ROADS AND PARKING LOTS AND AREAS WHERE VEGETATION CANNOT BE ESTABLISHED. PREVENTS MUD FROM BEING PICKED UP AND TRANSPORTED OFF-SITE.	X	X	CLEAN UP DIRT FROM STONE AS NEEDED.
	PAVING	X	PV	PROVIDES PERMANENT COVER ON PARKING LOTS AND ROADS OR OTHER AREAS WHERE VEGETATION CANNOT BE ESTABLISHED.		X	N/A
DIVERSIONS	RIDGE DIVERSION		RD	TYPICALLY USED ABOVE SLOPES TO COLLECT FLOW AND TRANSFER DOWNSLOPE.	X	X	CLEAN SILT OUT WHEN HALF-FULL.
	CHANNEL DIVERSION		CD	TYPICALLY USED TO DIVERT FLOW.	X	X	REPLACE PROTECTION WHEN NEEDED.
	COMBINATION DIVERSION		DKC	TYPICALLY USED ANYWHERE ON A SLOPE. SOIL TAKEN OUT OF CHANNEL IS USED TO BUILD THE RIDGE.	X	X	REPLACE PROTECTION WHEN NEEDED.
	CURB AND GUTTER	X	CG	SPECIAL CASE OF DIVERSION USED IN CONJUNCTION WITH A STREET TO DIVERT WATER FROM AN AREA NEEDING PROTECTION.		X	N/A
	BENCHES		B	SPECIAL CASE OF DIVERSION CONSTRUCTED WHEN WORKING ON CUT SLOPES TO SHORTEN LENGTH OF SLOPE AND ADD SLOPE STABILITY.	X	X	N/A
WATERWAYS	VEGETATIVE CHANNEL		VC	PROVIDED ADDED STABILITY TO CHANNEL. USED WHEN VELOCITY OF FLOW IS NOT EXTREMELY FAST.	X	X	REDO ANY FAILING AREAS.
	LINED CHANNEL		LC	USED WHEN VEGETATION WILL NOT PROTECT THE CHANNEL AGAINST HIGH VELOCITIES OF FLOW OR WHERE VEGETATION CANNOT BE ESTABLISHED.	X	X	REPLACE PROTECTION WHEN NEEDED.
ENCLOSED DRAINAGE	STORM SEWER	X	STM	CAN BE USED TO CONVEY SEDIMENT LADEN WATER TO SEDIMENT BASIN OR IN CONJUNCTION WITH A WATERWAY.		X	CLEAN SEDIMENT OUT.
	UNDER DRAIN	X	UD	USED TO LOWER WATER TABLE AND INTERCEPT GROUNDWATER FOR BETTER VEGETATION GROWTH AND SLOPE STABILITY. USED TO CARRY BASE FLOW IN WATERWAYS AND TO DEWATER SEDIMENT BASINS.	X	X	N/A
SPILLWAYS	STRAIGHT PIPE SPILLWAY		SPS	USED FOR RELATIVELY SMALL VERTICAL DROPS AND SMALL FLOWS OF WATER.		X	CLEAN OUT CONSTRUCTION DEBRIS.
	DROP INLET PIPE SPILLWAY		DIS	SAME AS PIPE SPILLWAY EXCEPT LARGER FLOWS AND LARGE VERTICAL DROPS CAN BE ACCOMMODATED.		X	CLEAN OUT CONSTRUCTION DEBRIS.
	WEIR SPILLWAY	X	W	USED FOR RELATIVELY SMALL VERTICAL DROPS AND FLOWS MUCH GREATER THAN PIPE STRUCTURES.	X	X	CLEAN OUT CONSTRUCTION DEBRIS.
	BOX INLET WEIR SPILLWAY		BS	SAME AS WEIR SPILLWAY EXCEPT LARGER FLOWS CAN BE ACCOMMODATED BECAUSE OF LOWER WEIR LENGTH.	X	X	CLEAN OUT CONSTRUCTION DEBRIS.
OUTLETS	LINED APRON	X	LA	PROTECTS DOWNSTREAM CHANNEL FROM HIGH VELOCITY OF FLOW DISCHARGING FROM STRUCTURES.	X	X	REPAIR DISLODGED STONES OR EROSION UNDER RIP-RAP AS NEEDED
SEDIMENT BASINS	SEDIMENT BASIN		SB	USED TO COLLECT SMALLER PARTICLES – DETAIN WATER WITH CONTROLLED RELEASE.	X	X	CLEAN SEDIMENT OUT WHEN HALF-FULL.
	SEDIMENT TRAP		ST	USED TO COLLECT LARGER PARTICLES – DETAIN WATER WITH CONTROLLED RELEASE.	X	X	CLEAN SEDIMENT OUT WHEN HALF-FULL.
SEDIMENT FILTERS	SILT FENCE	X	SF	USED FOR SINGLE LOTS OR DRAINAGE AREAS LESS THAN 1/2 ACRE TO FILTER SEDIMENT FROM RUNOFF.	X		CLEAN SEDIMENT OUT WHEN SILT IS HALF-FULL. REPAIR ANY DAMAGED SILT FENCE WHEN NEEDED.
	VEGETATIVE FILTER		VF	USED ALONG DRAINAGE WAYS OR PROPERTY LINES TO FILTER SEDIMENT FROM RUNOFF. SIZE MUST BE INCREASED IN PROPORTION TO DRAINAGE AREA.	X	X	REDO ANY FAILING AREAS.
MUD AND DUST CONTROL	STABILIZED CONST. ENTRANCE	X	SE	PREVENT MUD FROM BEING PICKED UP AND CARRIED OFF-SITE.	X	X	SCRAPE MUD AND REPLACE STONE AS NEEDED.
	DUST CONTROL	X	DT	PREVENTS DUST FROM LEAVING CONSTRUCTION SITE.	X	X	RE-APPLY AS NEEDED.
EROSION CONTROL	EROSION CONTROL BLANKET	X	ECB	PROTECTS SOIL, SEED AND HELPS GROW VEGETATION.			REPLACE AS NEEDED
	TURF REINFORCEMENT MAT	X	TRM	REINFORCES TURF IN CHANNELS AND SHORELINES.			REPLACE AS NEEDED
	CELLULAR CONFINEMENT		CF	USED TO HOLED TOPSOIL ON STEEP SLOPES.			REPLACE AS NEEDED
	GABIONS		GA	USED TO PREVENT EROSION IN VERY HIGH FLOW AREAS.			REPLACE AS NEEDED
	GEOTEXTILE FABRIC		GF	USED FOR EROSION / SEDIMENT CONTROL/ SEPARATION / STABILIZATION.			REPLACE AS NEEDED
	GEOBLOCK POROUS PAVEMENT		PP	USED FOR FIRE LANE ACCESS / VEGETATIVE PAVEMENT.			REPLACE AS NEEDED
SEDIMENT CONTROL	INLET PROTECTION	X	IP	USED FOR PROTECTION OF INLETS.			REPLACE OR CLEAN WHEN CLOGGED.
	SLOPE INTERRUPT		SI	USED TO BREAK UP THE FLOW ON A SLOPE.			CLEAN OUT WHEN HALF-FULL OF SILT.
	DITCH CHECK	X	DC	USED FOR FLOW SEDIMENT CONTROL IN SWALES AND CHANNELS.			CLEAN OUT WHEN HALF-FULL OF SILT.
	FLOC LOG		FL	USED TO CLARIFY WATER THAT HAS SEDIMENT IN THE WATERY COLUMN.			REPLACE WHEN HALF DISSOLVED.
	SILT CURTAIN		SC	USED FOR SEDIMENT CONTROL IN STREAM / POND.			REPLACE WHEN FABRIC IS TORN OR HOLES BEGIN TO FORM.
	PUMPING DISCHARGE BAG		PB	USED FOR PUMP DISCHARGE LINES.			REPLACE WHEN HALF-FULL, FABRIC IS TORN, OR HOLES BEGIN TO FORM.
	CONCRETE WASHOUT	X	CW	FOR CONCRETE TRUCKS TO WASHOUT.			CLEAN OUT WHEN HALF-FULL. CLEAN WASHOUT GRAVEL AREA AS NEEDED.
	STREET SWEEPING	X	SS	USED TO PREVENT SILT BUILD UP IN STREETS.			CLEAN ONCE A WEEK, OR AS NEEDED TO KEEP STREET CLEAN.

SEEDING CHART

STABILIZATION TYPE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PERMANENT SEEDING			A									
DORMANT SEEDING	B										B	
TEMPORARY SEEDING			C				D					
SODDING			C**									
MULCHING	F											

A KENTUCKY BLUEGRASS 90 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 30 LBS/ACRE.

B KENTUCKY BLUEGRASS 135 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 45 LBS/ACRE + 2 TONS STRAW MULCH/ACRE.

C SPRING OATS 100 LBS/ACRE

D WHEAT OR CEREAL RYE 150 LBS/ACRE.

E SOD

F STRAW MULCH 2 TONS/ACRE.

* IRRIGATION NEEDED DURING JUNE AND JULY.

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

*** MOW LAWNS AS NECESSARY

OBSERVATION & MAINTENANCE SCHEDULE

ACTIVITY	RESPONSIBLE PARTY	DURATION
STABILIZATION DURING CONSTRUCTION-MAINTENANCE	CONTRACTOR	DURING CONSTRUCTION
STABILIZATION DURING CONSTRUCTION-OBSERVATION	DEVELOPER/OWNER	WEEKLY & AFTER EACH RAINFALL EVENT IN EXCESS OF 0.5".
VEGETATION MAINTENANCE	CONTRACTOR	1 YEAR FROM COMPLETION
VEGETATION STABILIZATION MAINTENANCE	DEVELOPER/OWNER	ONGOING FROM CONSTRUCTION COMPLETION

NOTES:

This plan has been prepared to comply with the provisions of the NPDES Permit Number ILR10, issued by the Illinois Environmental Protection Agency for Stormwater Discharges from Construction Site Activities and Soil Erosion and Sediment Control Ordinance for the County.

1. Site Description.

a. The following is a description of the construction activity following mass grading which is the subject of this plan:

The proposed development consists of construction of Industrial Development
The construction activities for site improvements will include:
mass grading, pavement construction, installation of utilities including storm sewers, soil erosion and sedimentation control measures, as a minimum.

b. The following is a description of the intended sequence of major activities which will disturb soils for major portions of the construction site, such as grubbing, excavation, and grading:

The sequence of the construction activities may be as follows: 1) install silt filter fence and stabilized construction entrance, 2) mass grading, 3) underground utilities installation, 4) fine grading in pavement area and 5) pavement construction. The soil erosion and sedimentation control items will be constructed as needed during the above construction activities.

c. The total area of the construction site is estimated to be 41.43 acres.

The total area of the site that it is estimated to be disturbed by excavation, grading, or other activities, is ±23.94 acres.

d. The estimated runoff coefficients of the various areas of the site after construction activities are completed are contained in the project drainage study, titled Stormwater Management for 1960 West Lucent Lane prepared by Jacob & Hefner Associates, Inc. which is hereby incorporated by reference in this plan.
The estimated proposed overall site runoff coefficient is ____

e. Existing data describing soils or quality of discharge (soils report if available) Poor/Fair/Good/Not Available

f. Name of receiving water(s): Eastern Branch of the DuPage River
g. Name of ultimate receiving water(s): DuPage River
h. Wetland acreage: 0.00 acre

2. Controls.

This section of the plan addresses the various controls that will be implemented for each of the major construction activities described in 1.b above. For each measure discussed, the contractors will be responsible for its implementation as indicated. Each such contractor has signed the required certification on forms which are attached to, and are a part of, this plan.

a. Erosion and Sediment Controls.

(i) STABILIZATION PRACTICES. Provided below is a description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Except as provided in 2.a.(i).(A) and 2.b., stabilization measures shall be initiated within 1 working day in portions of the site where construction activities have temporarily or permanently ceased and must be completed within 14 calendar days after the construction activity in that portion of the site has ceased on all disturbed portions of the site where construction activity will not occur for a period of 14 or more calendar days.

Where the initiation of stabilization measures after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall by initiated as soon as practicable thereafter.

The following interim and permanent stabilization practices, as a minimum, will be implemented to stabilize the disturbed area of the site:

1. Permanent seeding
2. Silt filter fence
3. Vegetative Filter
4. Stabilized construction entrance
5. Barrier filter

(ii) STRUCTURAL PRACTICES. Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. The installation of these devices may be subject to Section 404 of the Clean Water Act.

1. Detention Pond
2. Storm sewer system
3. Rip-rap for outlet protection
4. Permanent seeding

(iii) DUST CONTROL: Dust Control shall be provided per standard 825 of Illinois Urban Manual. Following are the dust control that can be used.

1. Irrigation
2. Spray on adhesive
3. Vegetative cover
4. Mulching

b. Stormwater Management.

(i) Provided below is a description of measures that will be installed during the construction process to control pollutants in stormwater discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

The practices selected for implementation were determined on the basis of the technical guidance contained in IEPA's Standard Specifications for Soil Erosion and Sedimentation Control, and other ordinances listed in the Specifications.

The stormwater pollutant control measures shall include:

1. Silt filter fence
2. Barrier filters
3. Storm sewers
4. Retention/Detention ponds

(ii) Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., maintenance of hydrologic conditions, such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Stormwater Management Control includes:

1. Rip-rap for outlet protection
2. Ditch check

c. Other Controls.

(i) Waste Disposal. The solid waste materials including trash, construction debris, excess construction materials, machinery, tools and other items will be collected and disposed off-site by the contractor. The contractor is responsible to acquire any permit required for such disposal. Burning on the site will not be permitted. No solid materials, including building materials, shall be discharged into Waters of the State, except as authorized by a Section 404 permit.

(ii) The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.

The sanitary sewage will be discharged to the proposed sanitary sewer constructed per IEPA and local standards.

d. Approved State or Local Plans.

The management practices, controls, and other provisions contained in this plan are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Standards and Specifications for Soil Erosion and Sediment Control dated October 1987, Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Plan, and the Municipal Subdivision Ordinance. Requirements specified in sediment and erosion control site plans or site permits or stormwater management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI to be authorized to discharge under this permit, incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

3. Maintenance

The following is a description of procedures that will be used to maintain, in good and effective operating conditions, vegetation, erosion and sediment control measures and other protective measures identified in this plan and Standard Specifications.

Stabilized construction entrance: The entrance shall be maintained to prevent tracking of sediment onto public streets. This will be done by top dressing with additional stones, remove and replace top layer of stones or washing the entrance. The sediment washed on the public right-of-way will be removed immediately.

Vegetative erosion control measures: The vegetative growth of temporary and permanent seeding, sodding, vegetative channels, vegetative filter, etc. shall be maintained periodically and supply adequate watering and fertilizer. The vegetative cover shall be removed and reseeded as necessary.

Sedimentation basins/traps: The sediments shall be removed when 40-50 percent of the total original capacity is occupied by the sediment. In no case shall the sediment be built up to more than 1 foot below the crest elevation. At this stage, the basin shall be cleaned out to restore its original volume.

Silt filter fence: The damaged silt filter fence shall be restored to meet the standards or removed and replaced as needed

Straw bale barrier filters: The straw bale barrier filter shall be inspected frequently and shall be repaired or removed and replaced as needed.

Rip-Rap outlet protection: It shall be inspected after high flows for any scour beneath the Rip-Rap or for stones that have been dislodged. It shall be repaired immediately.

4. Inspections

The Owner, or Owner's representative shall provide qualified personnel to inspect disturbed areas of the construction site which have not been finaly stabilized, structural control measures, and location where vehicles enter or exit the site. Such inspections shall be conducted at least once every seven (7) calendar days and within 24 hours of the end of a storm (or by the end of the following business or work day) that consists of 0.5 inches or greater of rainfall or a discharge occurs due to snowmelt.

a. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off site sediment tracking.

b. Based on the results of the inspection, the description of potential pollutant sources identified in section 1 above and pollution prevention measures identified in section 2 above shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented within 7 calendar days following the inspection.

c. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the stormwater pollution prevention plan, and actions taken in accordance with section 4.b. shall be made and retained as part of the plan for at least three (3) years after the date of the inspection. The report shall be signed in accordance with Part VI.G of the general permit.

d. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer or Resident Technician shall complete and file an "Incidence of Noncompliance" (ION) report for the identified violation. The Resident Engineer or Resident Technician shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI. G of the general permit. The report of noncompliance shall be mailed to the following address:

ALL PACKAGES:	ALL LETTERS:
Illinois Environmental Protection Agency	Illinois Environmental Protection Agency
Division of Water Pollution Control	Division of Water Pollution Control
Attn: Compliance Assurance Section	Attn: Compliance Assurance Section
2520 Iles Ave	Post Office Box 19276
Springfield, IL 62794-9276	Springfield, IL 62794-9276

5. Non-Stormwater Discharge

Except for flows from fire fighting activities, sources of non-stormwater that may be combined with stormwater discharges associated with the residential activity addressed in this plan, are described below:

1. Water main flushing
2. Fire hydrant flushing
3. Watering for dust control
4. Irrigation drainage for vegetative growth for seeding, etc.

The pollution prevention measures, as described below, will be implemented for non-stormwater components of the discharge:

The fire hydrant and water main shall not be flushed directly on the exposed area or subgrade of the pavement. Hoses shall be used to direct the flow into the storm sewer system.

The erosion due to irrigation of seeding shall be considered minor.

NPDES CERTIFICATE

This certification statement is a part of the Storm Water Pollution Prevention Plan for the project described below, in accordance with NPDES Permit No. ILR00000000, issued by the Environmental Protection Agency on

PROJECT TITLE: SITE IMPROVEMENT PLANS FOR 1960 WEST LUCENT LANE

PROJECT LOCATION: NAPERVILLE (CITY/VILLAGE) DUPAGE (COUNTY) ILLINOIS (STATE)

DEVELOPER: KARIS CRITICAL

I certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

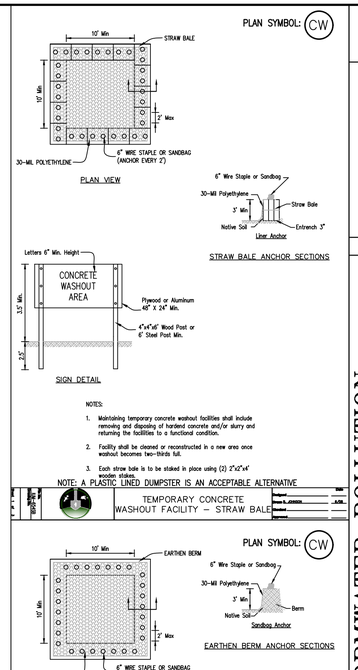
Signature: _____ Date: _____

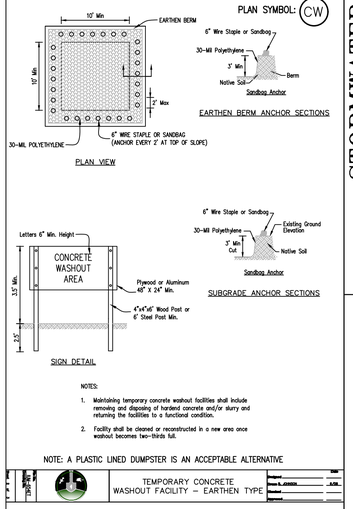
CONTRACTOR/SUBCONTRACTOR CERTIFICATION STATEMENT

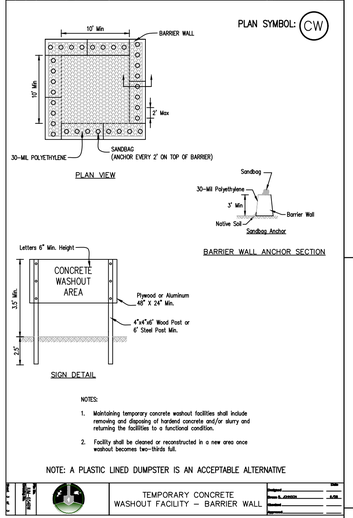
Name:	Signature

RIP-RAP DIMENSION TABLE

STRUCTURE NUMBER/POND	INLET PIPE SIZE d (IN)	DISCHARGE Q (CFS)	LENGTH OF APRON La (FT)	MEDIAN RIPRAP SIZE C (IN)	WIDTH OF APRON U/S FACE 3d (FT)	WIDTH OF APRON D/S FACE 3d+La (FT)	DEPTH OF RIP RAP Y (IN)	AREA OF RIP RAP (SQ.YDS.)	VOLUME OF RIP RAP (CU.YDS.)
ALL	12		10	6 (IDOT RR 3)	3.00	13.00	15	8.89	3.7
ALL	15		10	6 (IDOT RR 3)	3.75	13.75	15	9.72	4.1
ALL	18		15	9 (IDOT RR 4)	4.50	19.50	20	20.00	11.1
ALL	21		15	9 (IDOT RR 4)	5.25	20.25	20	21.25	11.8
ALL	24		18	9 (IDOT RR 4)	6.00	24.00	20	30.00	16.7
ALL	27		18	9 (IDOT RR 4)	6.75	24.75	20	31.50	17.5
ALL	30		20	9 (IDOT RR 4)	7.50	27.50	20	38.89	21.6
ALL	36		24	12 (IDOT RR 5)	9.00	33.00	28	56.00	43.6
ALL	42		27	12 (IDOT RR 5)	10.5	37.50	30	72.00	60.0
ALL	48		27	15 (IDOT RR 6)	12.0	39.00	32	76.50	68.0
ALL	54		27	15 (IDOT RR 6)	13.5	40.50	32	81.00	72.0
ALL	60		36	15 (IDOT RR 6)	15.0	51.00	32	132.00	118.0
ALL	72		44	18 (IDOT RR 7)	18.0	62.00	32	195.56	174.0







No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

STORMWATER POLLUTION PREVENTION PLAN

1960 WEST LUCENT LANE

NAPERVILLE, ILLINOIS

KARIS CRITICAL

JACOB & HEFNER ASSOCIATES
1333 Butterfield Rd, Suite 300, Downers Grove, IL 60515
PHONE: (630) 652-4600, FAX: (630) 652-4601
www.jacobandhefner.com

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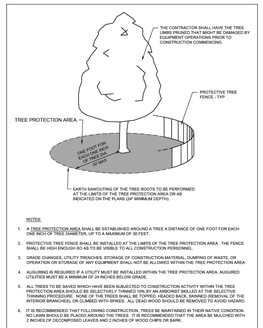
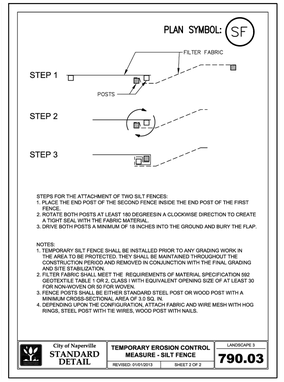
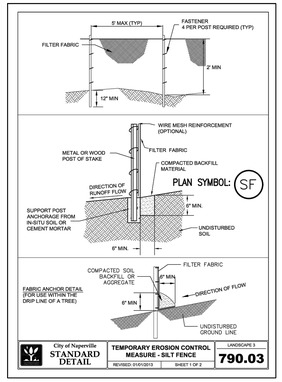
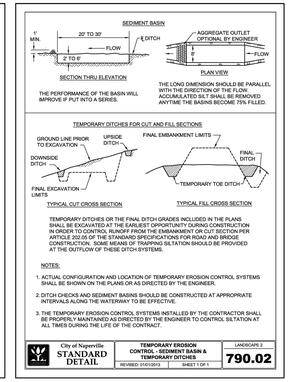
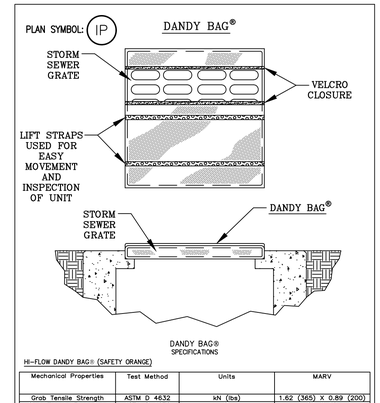










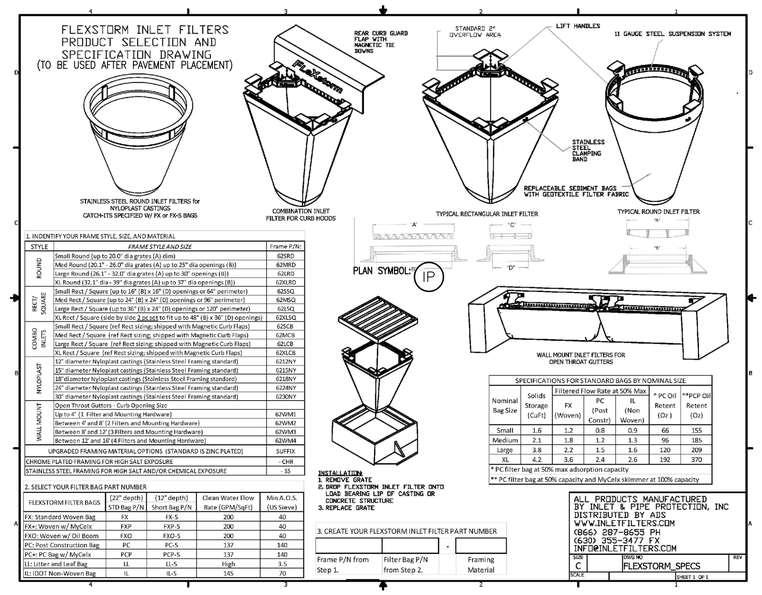
Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistence	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	$l/min/m^2$ (gal/min/ft^2)	5907 (145)
Permittivity	ASTM D 4491	Sec^{-1}	2.1

*Note: All Dandy Bags® can be ordered with our optional oil absorbent pillows

INLET PROTECTION PRACTICES

1) INLET PROTECTION BASKETS SHALL BE FLEXSTORM (OR APPROVED EQUAL). INLET PROTECTION BASKETS SHALL BE USED ON EXISTING INLETS THAT ARE LOCATED WITHIN PAVED AREAS

2) INLET PROTECTION BAGS SHALL BE DANDYBAG (OR APPROVED EQUAL). INLET PROTECTION BAGS SHALL BE USED ON ALL ON-SITE STORM SEWER GRATES UNTIL UPSTREAM TRIBUTARY AREAS OF STORM STRUCTURES ARE STABILIZED.



1. INDENTIFY YOUR FRAME STYLE, SIZE, AND MATERIAL

STYLE	FRAME STYLE AND SIZE	Frame P/N:
ROUND	Small Round (up to 20.0" dia grates (A) elim)	62SRD
	Med Round (20.1" - 26.0" dia grates (A) up to 25" dia openings (B))	62MRD
	Large Round (26.1" - 32.0" dia grates (A) up to 30" openings (B))	62LRD
	XL Round (32.1" dia - 39" dia grates (A) up to 37" dia openings (B))	62XLRD
RECT/ SQUARE	Small Rect / Square (up to 18" (B) x 18" (D) openings or 64" perimeter)	62SSQ
	Med Rect / Square (up to 24" (B) x 24" (D) openings or 96" perimeter)	62MSQ
	Large Rect / Square (up to 30" (B) x 24" (D) openings or 120" perimeter)	62LSQ
	XL Rect / Square (side by side 2 pc set to fit up to 48" (B) x 36" (D) openings)	62XLSQ
COMBO INLETS	Small Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62SCB
	Med Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62MCB
	Large Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62LCB
	XL Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62XLCB
NYLOPLAST	12" diameter Nyloplast castings (Stainless Steel Framing standard)	62I12NY
	15" diameter Nyloplast castings (Stainless Steel Framing standard)	62I15NY
	18"diameter Nyloplast castings (Stainless Steel Framing standard)	62I18NY
	24" diameter Nyloplast castings (Stainless Steel Framing standard)	62I24NY
	30" diameter Nyloplast castings (Stainless Steel Framing standard)	62I30NY
SHALLOW/LIT	Open Throat Gutters - Curb Opening Size:	
	Up to 4" (1 Filter and Mounting Hardware)	62VNM1
	Between 4" and 8" (2 Filters and Mounting Hardware)	62VNM2
	Between 8' and 12" (3 Filters and Mounting Hardware)	62VNM3
	Between 12' and 16" (4 Filters and Mounting Hardware)	62VNM4
	UPGRADED FRAME/HG MATERIAL OPTIONS (STANDARD IS ZINC PLATED)	SUFFIX
CHROME PLATED FRAMING FOR HIGH SALT EXPOSURE		-CHR
STAINLESS STEEL FRAMING FOR HIGH SALT AND/OR CHEMICAL EXPOSURE		-SS

2. SELECT YOUR FILTER BAG PART NUMBER

FLEXSTORM FILTER BAGS	(22" depth) STD Bag P/N	(12" depth) Short Bag P/N	Clean Water Flow Rate (GPM/SqFt)	Min A.O.S. (US Sieve)
FX: Standard Woven Bag	FX	FX-S	200	40
FX+: Woven w/ MyCelx	FXP	FXP-S	200	40
FXO: Woven w/ Oil Boom	FXO	FXO-S	200	40
PC: Post Construction Bag	PC	PC-S	137	140
PC+: PC Bag w/ MyCelx	PCP	PCP-S	137	140
LL: Litter and Leaf Bag	LL	LL-S	High	3.5
IL: IDOT Non-Woven Bag	IL	IL-S	145	70

3. CREATE YOUR FLEXSTORM INLET FILTER PART NUMBER

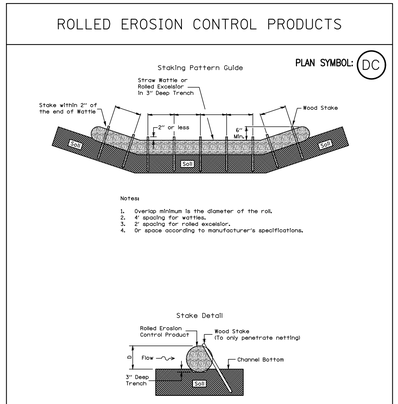
		-	
Frame P/N from Step 1.	Filter Bag P/N from Step 2.		Framing Material

SPECIFICATIONS FOR STANDARD BAGS BY NOMINAL SIZE

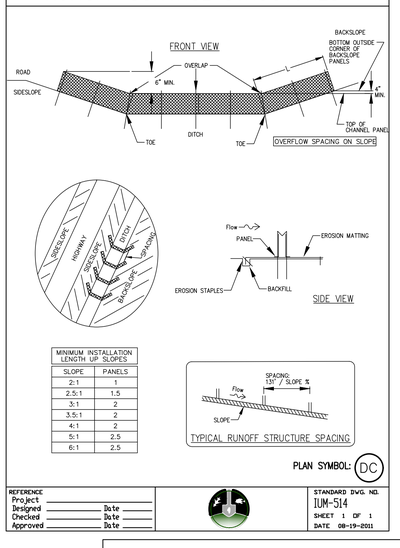
Nominal Bag Size	Solids Storage (Cu'Ft)	Filtered Flow Rate at 50% Max FX (Woven)	PC (Post Const)	IL (Non Woven)	* PC Oil Retent (Oz.)	**PCP Oil Retent (Oz)
Small	1.6	1.2	0.8	0.9	66	155
Mediums	2.1	1.8	1.2	1.3	96	185
Large	3.8	2.2	1.5	1.6	120	209
XL	4.2	3.6	2.4	2.6	192	370

* PC filter bag at 50% max adsorption capacity
** PC filter bag at 50% capacity and MyCelx skimmer at 100% capacity

ROLLED EROSION CONTROL PRODUCTS



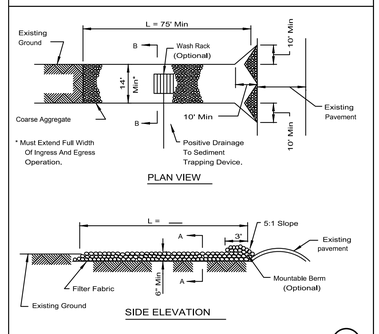
SYNTHETIC POROUS RUNOFF CONTROL STRUCTURES



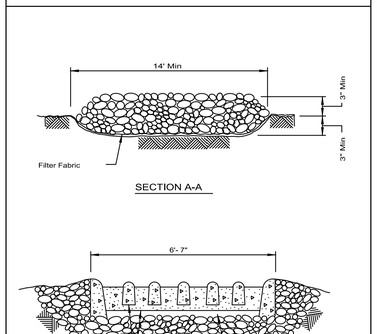
MINIMUM INSTALLATION LENGTH UP SLOPES	
SLOPE	PANELS
2:1	1
2.5:1	1.5
3:1	2
3.5:1	2
4:1	2
5:1	2.5
6:1	2.5

PLAN SYMBOL: DC

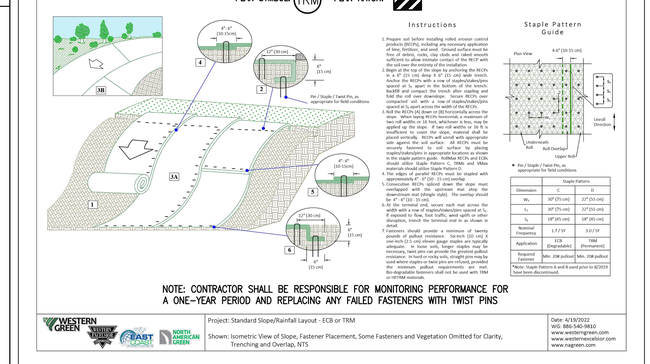
STABILIZED CONSTRUCTION ENTRANCE PLAN



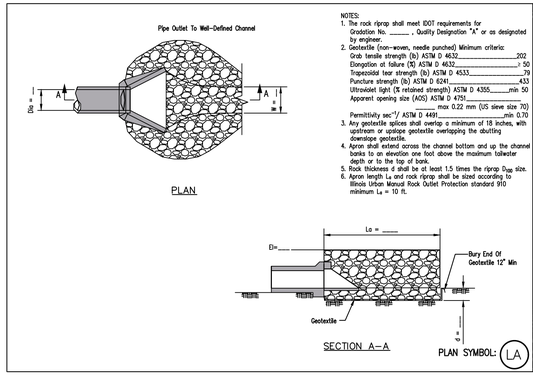
STABILIZED CONSTRUCTION ENTRANCE PLAN



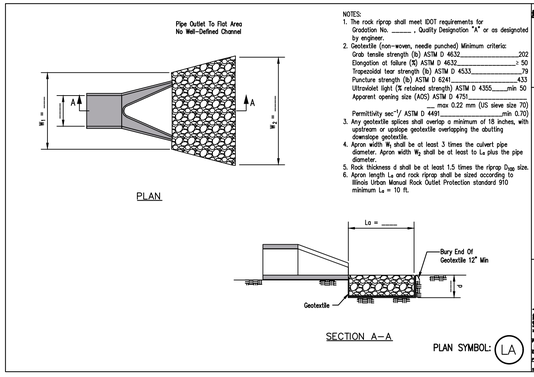
NOTE: FODS TRACKOUT CONTROL MAT SHALL BE AN APPROVED ALTERNATIVE TO THIS STABILIZED CONTRUCTION ENTRANCE PLAN



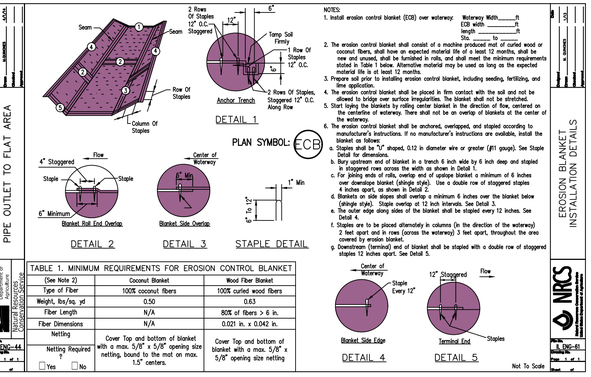
PIPE OUTLET TO CHANNEL



PIPE OUTLET TO FLAT AREA



EROSION BLANKET INSTALLATION DETAILS



NOTES:
1. Install erosion control blanket (ECB) over waterway: Waterway Width ___ft
ECB width ___ft
length ___ft
Sta. ___ to ___
2. The erosion control blanket shall consist of a machine produced mat of curled wood or coconut fibers, shall have an expected material life of a least 12 months, shall be new and unused, shall be furnished in rolls, and shall meet the minimum requirements stated in Table 1 below. Alternative material may be used as long as the expected material life is at least 12 months.
3. Prepare soil prior to installing erosion control blanket, including seeding, fertilizing, and lime application.
4. The erosion control blanket shall be placed in firm contact with the soil and not be suspended to bridge over surface irregularities. The blanket shall not be stretched.
5. Staple down the blankets by rolling center blanket in the direction of flow, centered on the centerline of waterway. There shall not be an overlap of blankets at the center of the waterway.
6. The erosion control blanket shall be anchored, overlapped, and stapled according to manufacturer's instructions. If no manufacturer's instructions are available, install the blanket as follows:
a. Staples shall be "U" shaped, 0.12 in diameter wire or greater (#11 gauge). See Staple Detail for dimensions.
b. Bury upstream end of blanket in a trench 6 inch wide by 6 inch deep and stapled in staggered rows across the width as shown in Detail 1.
c. For joining ends of rolls, overlap end of upslope blanket a minimum of 6 inches over downslope blanket (shingle style). Use a double row of staggered staples 4 inches apart, as shown in Detail 2.
d. Blankets on side slopes shall overlap a minimum 6 inches over the blanket below (shingle style). Staple overlap at 12 inch intervals. See Detail 3.
e. The outer edge along sides of the blanket shall be stapled every 12 inches. See Detail 4.
f. Staples are to be placed alternately in columns (in the direction of the waterway) 2 feet apart and in rows (across the waterway) 3 feet apart, throughout the area covered by erosion blanket.
g. Downstream (terminal) end of blanket shall be stapled with a double row of staggered staples 12 inches apart. See Detail 5.

TABLE 1. MINIMUM REQUIREMENTS FOR EROSION CONTROL BLANKET		
(See Note 2)	Coconut Blanket	Wood Fiber Blanket
Type of Fiber	100% coconut fibers	100% curled wood fibers
Weight, lbs/sq. yd	0.50	0.63
Fiber Length	N/A	80% of fibers > 6 in.
Fiber Dimensions	N/A	0.021 in. x 0.042 in.
Netting		
Netting Required ? ☐ Yes ☐ No	Cover Top and bottom of blanket with a max. 5/8" x 5/8" opening size netting, bound to the mat on max. 1.5" centers.	Cover Top and bottom of blanket with a max. 5/8" x 5/8" opening size netting

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No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

SWPPP DETAILS

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

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DETAILS

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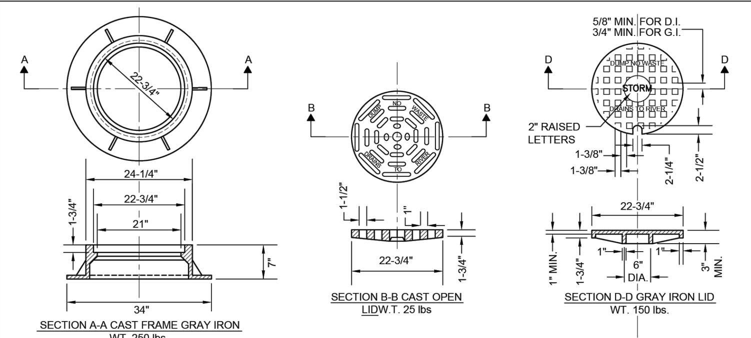
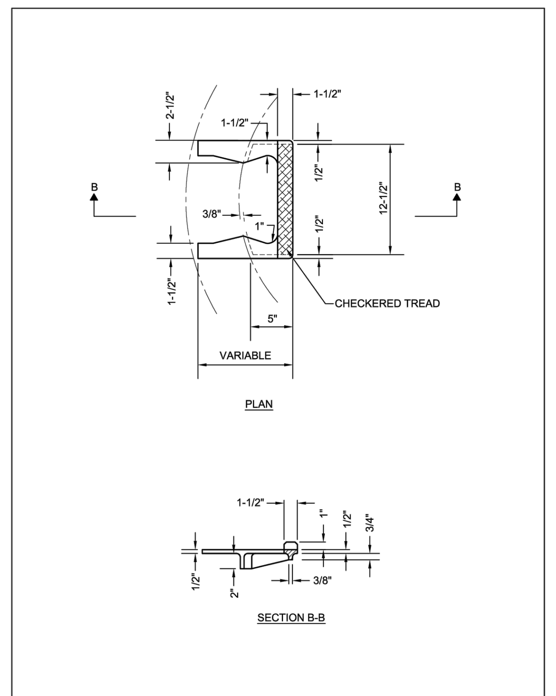


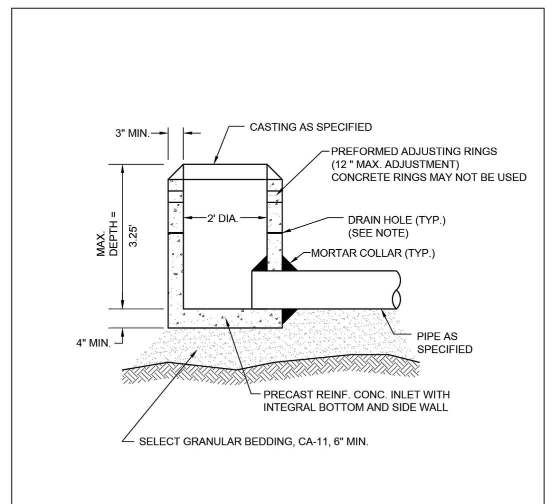
NOTES:

1. FRAME AND GRATE (LID) SHALL BE NEENAH R-2502 FOR OPEN GRATES, R-1772 FOR CLOSED LIDS; EAST JORDAN 1022-2 WITH M-1 GRATE OR TYPE A SOLID COVER, OR EQUAL APPROVED BY THE CITY ENGINEER.
2. ALL LIDS AND COVERS SHALL HAVE MACHINED SURFACES AND SEATS.
3. ALL CASTINGS SHALL BE SHOP PAINTED WITH AN ASPHALTIC BASE PAINT.
4. ALL CASTINGS SHALL INCLUDE "DUMP NO WASTE. DRAINS TO RIVER".

City of Naperville STANDARD DETAIL | FRAME & LID OR GRATE | STORM 10 | 290.10 | REVISED: 05/15/2015 | SHEET 1 OF 1



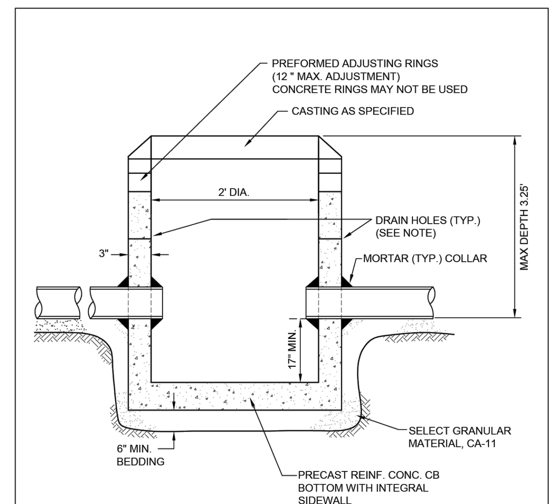
City of Naperville STANDARD DETAIL | CAST IRON STEPS | STORM 6 | 290.06 | REVISED: 01/01/2013 | SHEET 1 OF 1



NOTE:

IN PAVED AREAS A MINIMUM OF 4 PRECAST OR DRILLED 1" DIAMETER HOLES SHALL BE PROVIDED WITHIN 1' OF THE LOWEST PIPE INVERT. THE HOLES SHALL BE DISTRIBUTED EQUIDISTANT AROUND THE PERIMETER OF THE STRUCTURE. A 1' BY 1' SQUARE OF UNDERDRAIN FILTER CLOTH MATERIAL SHALL BE FIXED OVER EACH DRAIN HOLE ON THE OUTSIDE OF THE STRUCTURE WITH MASTIC MATERIAL TO PREVENT SLIPPAGE DURING BACKFILLING.

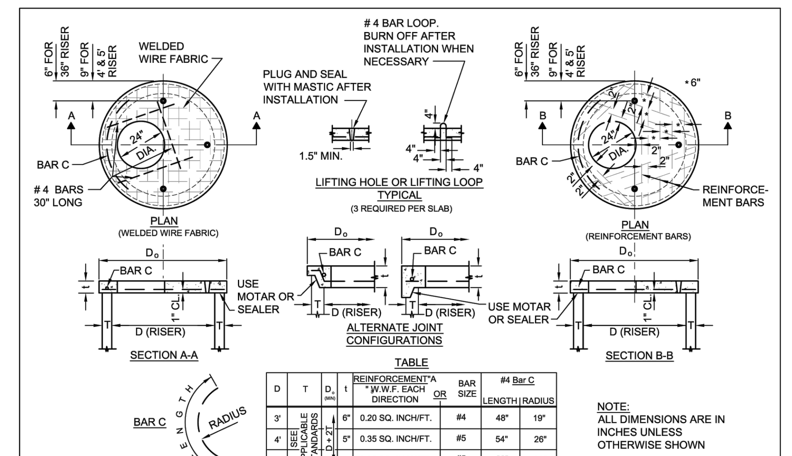
City of Naperville STANDARD DETAIL | INLET - TYPE A | STORM 5 | 290.05 | REVISED: 08/01/2018 | SHEET 1 OF 1



NOTE:

A MINIMUM OF 4 PRECAST OR DRILLED 1" DIAMETER HOLES SHALL BE PROVIDED WITHIN 1' OF THE LOWEST PIPE INVERT. THE HOLES SHALL BE DISTRIBUTED EQUIDISTANT AROUND THE PERIMETER OF THE STRUCTURE. A 1' BY 1' SQUARE OF UNDERDRAIN FILTER CLOTH MATERIAL SHALL BE FIXED OVER EACH DRAIN HOLE ON THE OUTSIDE OF THE STRUCTURE WITH MASTIC MATERIAL TO PREVENT SLIPPAGE DURING BACKFILLING.

City of Naperville STANDARD DETAIL | CATCH BASIN - TYPE C | STORM 4 | 290.04 | REVISED: 08/01/2018 | SHEET 1 OF 1

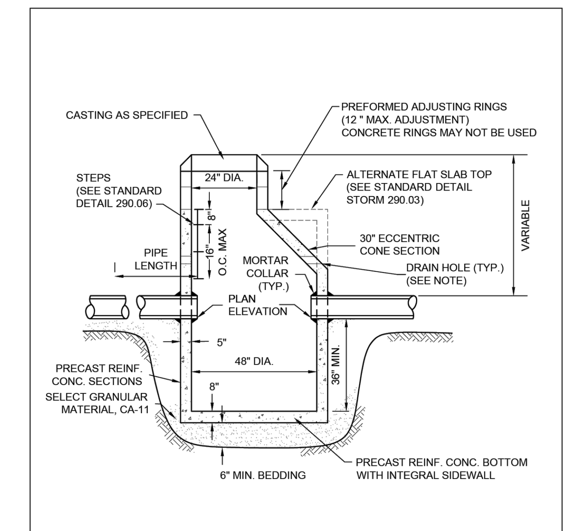


TABLE

D	T	D_o	t	REINFORCEMENT*A *W.W.F. EACH DIRECTION OR	BAR SIZE	#4 Bar C LENGTH	#4 Bar C RADIUS
3'	SEE APPLICABLE STANDARDS	D + 2T	6"	0.20 SQ. INCH/FT.	#4	48"	19"
4'			5"	0.35 SQ. INCH/FT.	#5	54"	26"
5'			8"	0.35 SQ. INCH/FT.	#5	60"	32"

NOTE:
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN

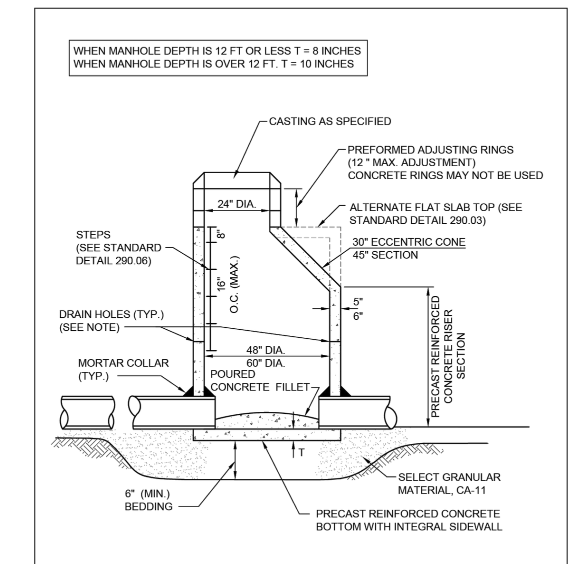
City of Naperville STANDARD DETAIL | FLAT SLAB TOP PRECAST REINFORCED CONCRETE | STORM 3 | 290.03 | REVISED: 01/01/2013 | SHEET 1 OF 1



NOTE:

A MINIMUM OF 4 PRECAST OR DRILLED 1" DIAMETER HOLES SHALL BE PROVIDED WITHIN 1' OF THE LOWEST PIPE INVERT. THE HOLES SHALL BE DISTRIBUTED EQUIDISTANT AROUND THE PERIMETER OF THE STRUCTURE. A 1' BY 1' SQUARE OF UNDERDRAIN FILTER CLOTH MATERIAL SHALL BE FIXED OVER EACH DRAIN HOLE ON THE OUTSIDE OF THE STRUCTURE WITH MASTIC MATERIAL TO PREVENT SLIPPAGE DURING BACKFILLING.

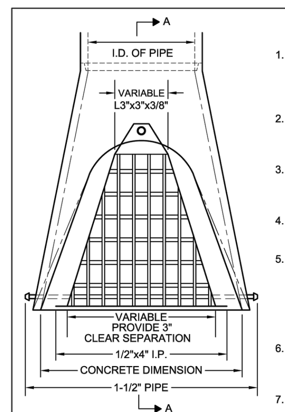
City of Naperville STANDARD DETAIL | CATCH BASIN - TYPE A | STORM 2 | 290.02 | REVISED: 08/01/2018 | SHEET 1 OF 1



NOTE:

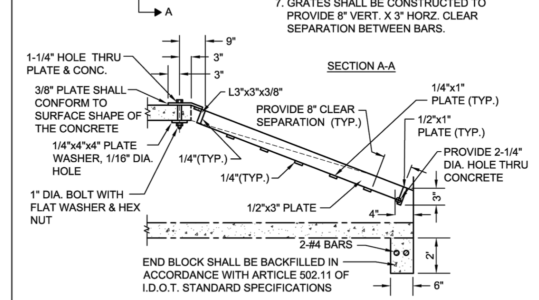
A MINIMUM OF 4 PRECAST OR DRILLED 1" DIAMETER HOLES SHALL BE PROVIDED WITHIN 1' OF THE LOWEST PIPE INVERT. THE HOLES SHALL BE DISTRIBUTED EQUIDISTANT AROUND THE PERIMETER OF THE STRUCTURE. A 1' BY 1' SQUARE OF UNDERDRAIN FILTER CLOTH MATERIAL SHALL BE FIXED OVER EACH DRAIN HOLE ON THE OUTSIDE OF THE STRUCTURE WITH MASTIC MATERIAL TO PREVENT SLIPPAGE DURING BACKFILLING.

City of Naperville STANDARD DETAIL | STORM MANHOLE- TYPE A | STORM 1 | 290.01 | REVISED: 08/01/2018 | SHEET 1 OF 1

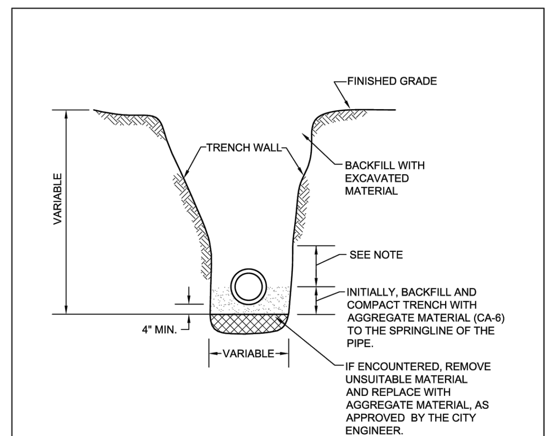


NOTES:

1. STRUCTURAL STEEL SHAPES AND PLATES SHALL BE IN ACCORDANCE WITH ARTICLE 710.04 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. GALVANIZED STEEL PIPE SHALL BE IN ACCORDANCE WITH ARTICLE 710.33 (B) OF THE STANDARD SPECIFICATIONS.
3. BOLTS, NUTS AND WASHERS SHALL BE IN ACCORDANCE WITH ARTICLE 710.33 (G) OF THE STANDARD SPECIFICATIONS.
4. ALL FABRICATION SHALL BE COMPLETED AND ASSEMBLED BEFORE GALVANIZING.
5. THE CORED HOLES IN THE PRECAST CONCRETE FLARED END SECTIONS SHALL BE TO THE DIAMETERS NOTED. IF CONE-OUT ON THE OTHER END OF THE HOLE OCCURS, THE HOLE SHALL BE FILLED WITH GROUT TO CORRECT DIAMETER OF THE HOLE.
6. ALL FLARED END SECTIONS FOR PIPE GREATER THAN 12" IN DIAMETER SHALL BE PROVIDED WITH A GRATE.
7. GRATES SHALL BE CONSTRUCTED TO PROVIDE 8" VERT. X 3" HORZ. CLEAR SEPARATION BETWEEN BARS.



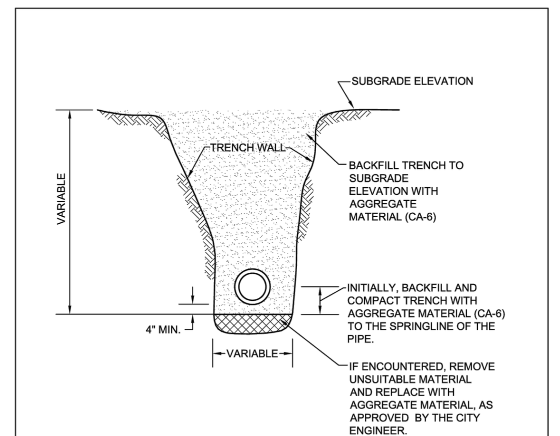
City of Naperville STANDARD DETAIL | GRATING FOR CONCRETE FLARED END SECTION | STORM 22 | 290.22 | REVISED: 01/01/2013 | SHEET 1 OF 1



NOTE:

FOR PVC AND HDPE PIPE, BACKFILL WITH AGGREGATE MATERIAL (CA-6) TO 6" ABOVE THE TOP OF PIPE.

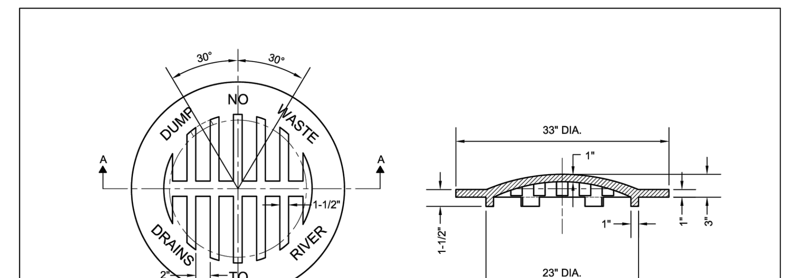
City of Naperville STANDARD DETAIL | STORM SEWER TRENCH SECTION IN NON-PAVED AREAS | STORM 21 | 290.21 | REVISED: 01/01/2013 | SHEET 1 OF 1



NOTES:

1. TRENCH BACKFILL MATERIAL SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 550.07 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. THIS DETAIL SHALL BE USED WHEREVER THE TRENCH IS MADE IN THE PROPOSED ROADWAY SUBGRADE, AND WHEREVER THE INNER EDGE OF THE TRENCH IS CLOSER THAN 2' TO THE EDGE OF THE PROPOSED PAVEMENT, CURB AND GUTTER, AND SIDEWALK.

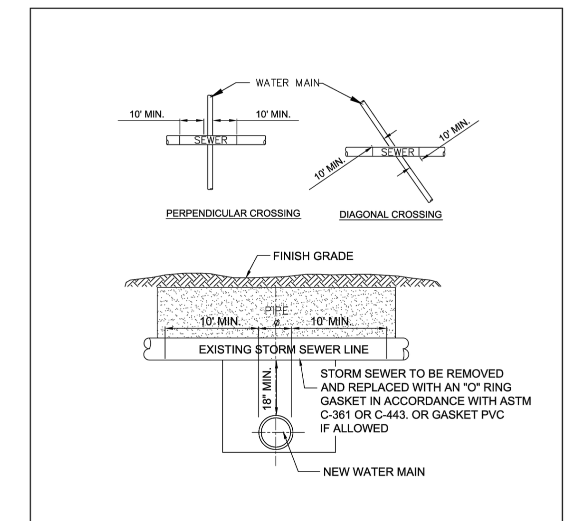
City of Naperville STANDARD DETAIL | STORM SEWER TRENCH SECTION IN PAVED AREAS | STORM 20 | 290.20 | REVISED: 01/01/2013 | SHEET 1 OF 1



NOTES:

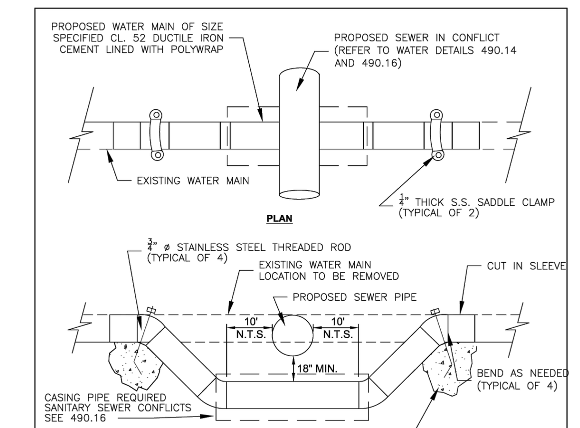
1. BEEHIVE GRATE SHALL BE NEENAH R4340B, EAST JORDAN 6527, OR EQUAL APPROVED BY THE CITY ENGINEER.
2. ALL CASTINGS SHALL BE SHOP PAINTED WITH AN ASPHALTIC BASE PAINT.
3. ALL CASTINGS SHALL INCLUDE "DUMP NO WASTE. DRAINS TO RIVER".

City of Naperville STANDARD DETAIL | BEEHIVE GRATE | STORM 14 | 290.14 | REVISED: 05/15/2015 | SHEET 1 OF 1



NOTE:
NEW STORM SEWER INSTALLATION SHALL BE GASKETED STRUCTURE TO STRUCTURE

City of Naperville STANDARD DETAIL | WATER MAIN PROTECTION FROM EXISTING STORM SEWER PIPE | WATER 14 | 490.14 | REVISED: 01/01/2013 | SHEET 1 OF 1



1.) PIPING TO BE DISINFECTED DURING INSTALLATION. ALL NEW JOINTS SHALL BE INSTALLED WITH MEG-A-LUG, OR APPROVED EQUAL, JOINT RESTRAINT. CONTRACTOR SHALL USE 22 1/2 OR 11 1/4 DEGREE BENDS IN LIEU OF 45 DEGREE BENDS WHERE POSSIBLE.

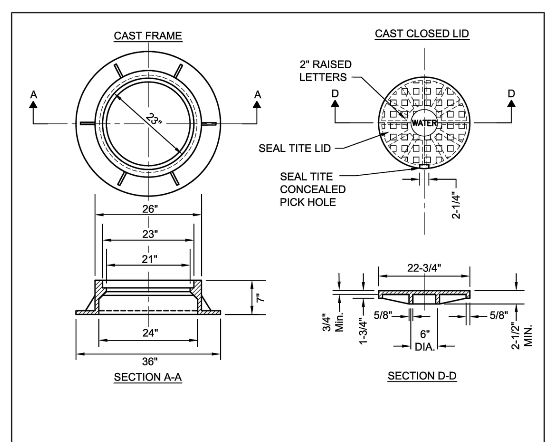
2.) VERTICAL THRUST BLOCKS UNDER BENDS SHALL BE 1 C.Y. MINIMUM OR SIZED AS NEEDED TO RESTRAIN BENDS. CONCRETE TO SUFFICIENTLY CURE PRIOR TO TESTING. POURED CONCRETE SHALL NOT BE PLACED AROUND PIPE BOLTS OR HINDER FUTURE MAINTENANCE.

3.) POLYWRAP SHOULD BE IN SHEETS INSTALLED UNDER WATER MAIN WITH ALL PIPING JOINTS EXPOSED UNTIL AFTER PRESSURE TEST IS COMPLETE, THEN WRAPPED AND TAPED IN PLACE PRIOR TO BACKFILLING.

4.) SEWERS INSTALLED ABOVE WATER MAIN SHALL BE DESIGNED TO PROVIDE WATER MAIN PROTECTION AS REQUIRED BY I.E.P.A

5.) ALL PIPING TO BE FLUSHED AND TWO SAFE CONSECUTIVE BACTERIAL SAMPLES TAKEN PRIOR TO CITY PLACING MAIN BACK IN SERVICE.

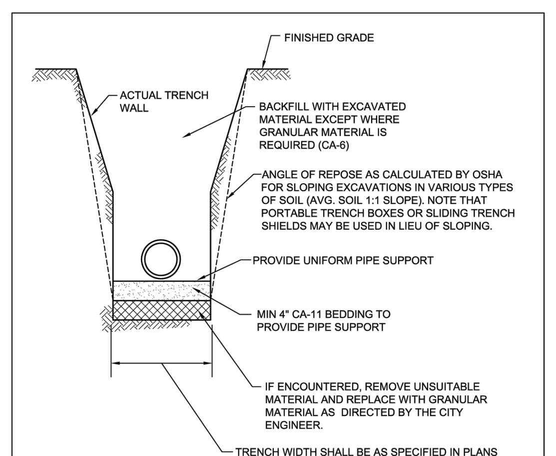
City of Naperville STANDARD DETAIL | LOWERING/ADJUSTING WATER MAIN | WATER 13 | 490.13 | REVISED: 05/15/2015 | SHEET 1 OF 1



NOTES:

1. DUCTILE IRON SHALL BE GRADE 65-45-12 AND SHALL BE TESTED IN ACCORDANCE WITH FEDERAL SPECIFICATIONS.
2. ALL FRAMES AND COVERS SHALL HAVE MACHINED HORIZONTAL AND VERTICAL BEARING SURFACES. PICK HOLES SHALL NOT CREATE OPENINGS IN THE COVER.
3. THE MANHOLE COVERS SHALL HAVE RAISED LETTERS AS SHOWN.
4. ALTERNATIVE TO DUCTILE IRON LID, GREY IRON CL 35 LID MAY BE USED.
5. DIMENSIONS FOR CASTINGS ARE COMPARABLE TO EAST JORDAN 1022 OR NEENAH R-1772-C, HEAVY DUTY.
6. LIDS AND FRAMES TO MEET AASHTO M306 PROOF LOADING SPECIFICATIONS.

City of Naperville STANDARD DETAIL | VALVE VAULT - FRAME & COVER | WATER 4 | 490.04 | REVISED: 01/01/2013 | SHEET 1 OF 1



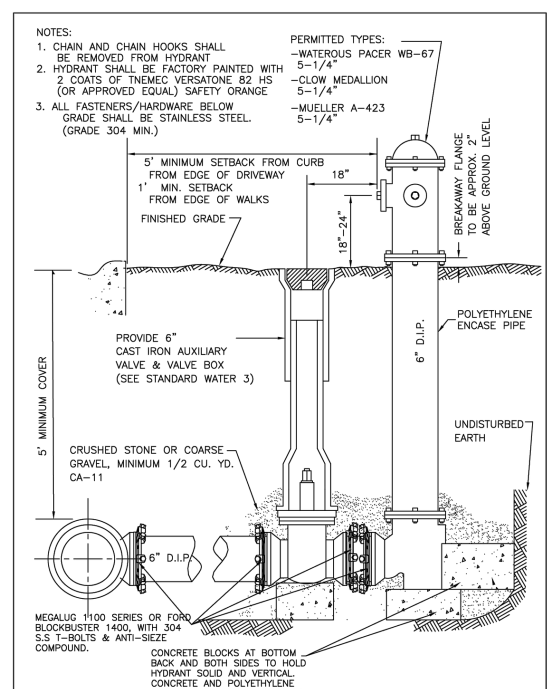
NOTES:

1. IN PAVED AREAS ALL TRENCHES SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 550.07 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. METHOD 1. 95% MINIMUM STANDARD PROCTOR.

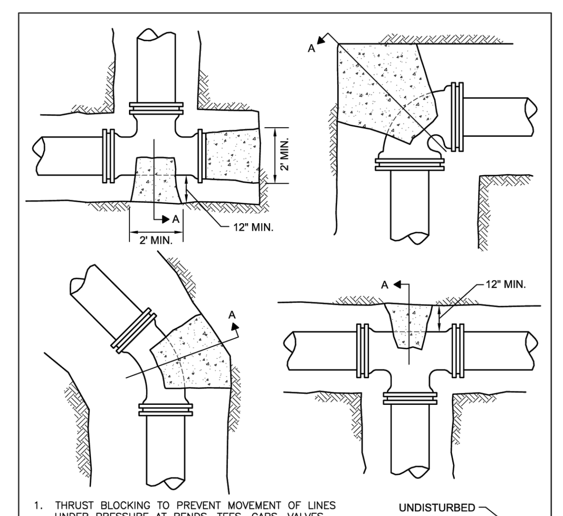
2. DUCTILE IRON WATER MAIN TO BE CLASS 52. ALL DUCTILE IRON PIPE IS TO BE ENCASED IN POLYETHYLENE FILM. POLYETHYLENE ENCASEMENT TO BE INSTALLED IN ACCORDANCE WITH AWWAC105A21.5-99.(OR LATEST EDITION)

3. STAINLESS STEEL NUTS, BOLTS/T-BOLTS, AND WASHERS, TYPE 304 OR BETTER, WILL BE REQUIRED ON ALL WATER MAIN INSTALLATIONS. THIS WOULD APPLY TO HYDRANTS, TAPPING SLEEVES, VALVES, FITTINGS, RESTRAINT, AND OTHER APPURTENANCES BURIED OR IN VALVE VAULTS. MECHANICAL JOINTS AND RESTRAINT GLANDS REQUIRE 304 STAINLESS STEEL T-BOLTS. AN ANTI-SEIZE COMPOUND SHALL BE FACTORY APPLIED TO NUTS OR BOLTS - ANY DAMAGE TO THIS COATING SHALL BE REPAIRED WITH FIELD-APPLIED, APPROVED ANTI-SEIZE COMPOUND THAT IS A MOLYBDENUM-BASE LUBRICANT, BOSTIK NEVER-SEEZ OR APPROVED EQUAL.

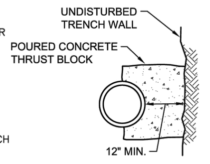
City of Naperville STANDARD DETAIL | WATER MAIN TRENCH SECTION | WATER 10 | 490.10 | REVISED: 01/01/2013 | SHEET 1 OF 1



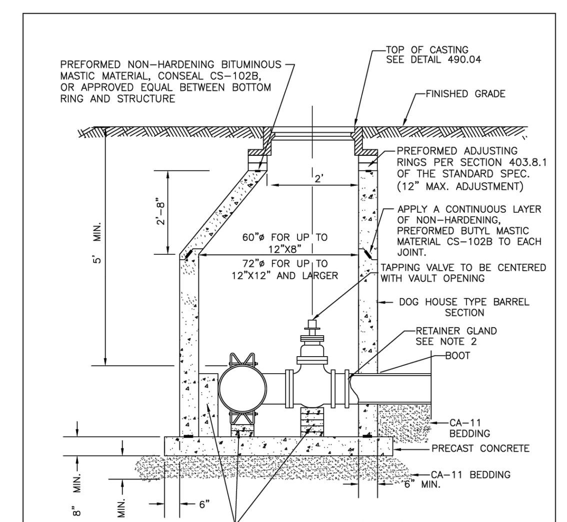
City of Naperville STANDARD DETAIL | HYDRANT | WATER 6 | 490.06 | REVISED: 05/15/2015 | SHEET 1 OF 1



1. THRUST BLOCKING TO PREVENT MOVEMENT OF LINES UNDER PRESSURE AT BENDS, TEES, CAPS, VALVES, HYDRANTS, & AT POINTS SPECIFIED BY THE ENGINEER SHALL BE CLASS "SI".
2. CONCRETE A MINIMUM OF 12" THICK, PLACED BETWEEN SOLID GROUND & THE FITTING, AND SHALL BE ANCHORED IN SUCH A MANNER THAT THE PIPE AND FITTING WILL BE ACCESSIBLE FOR REPAIRS.
3. THRUST BLOCKS SHALL BE PLACED AT BENDS OF 11–1/4" OR MORE.
4. PIPE BENDS TO BE POLYETHYLENE ENCASED.
5. JOINT RESTRAINT AT BEND AND LENGTH OF PIPE EACH DIRECTION FROM BENDS AS REQUIRED BY THE CITY OF NAPERVILLE IF UNDISTURBED SOIL NOT AVAILABLE.
6. THRUST BLOCK FOR PIPES LARGER THAN 12"ø MUST BE POURED IN PLACE

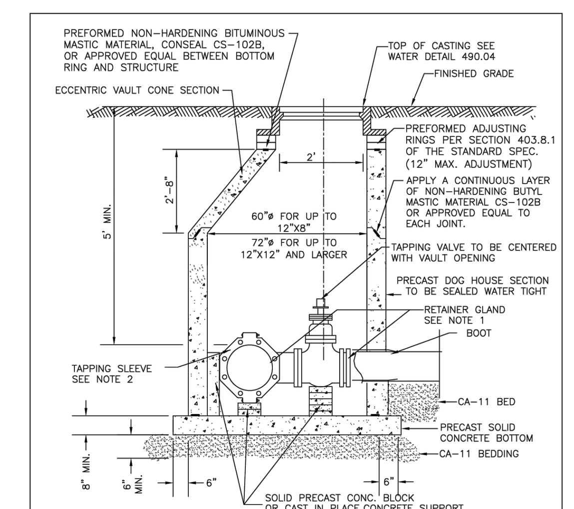


City of Naperville STANDARD DETAIL | THRUST BLOCK | WATER 11 | 490.11 | REVISED: 05/15/2015 | SHEET 1 OF 1



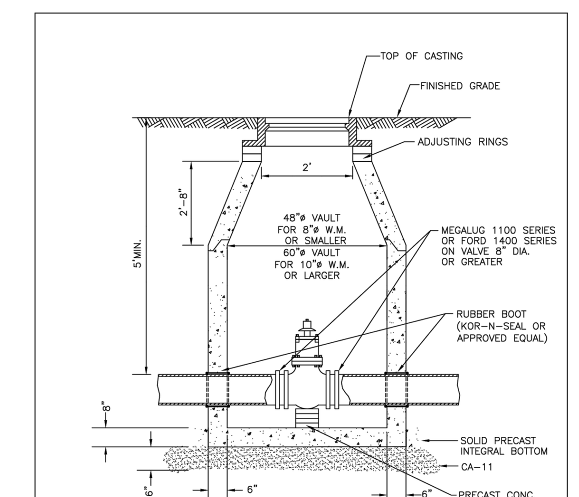
1. USE MEGALUG SERIES 1100 OR FORD UNI–FLANGE SERIES 1400 RETAINER GLANDS WITH STAINLESS STEEL T–BOLTS COATED WITH ANTI–SIEZE COMPOUND.
2. TAPPING SLEEVES SHALL BE HEAVY DUTY STAINLESS STEEL WITH STAINLESS STEEL BOLTS AND NUTS (ROMAC INDUSTRIES SST III, CASCADE CST–EX, FORD FTSS).
3. EXISTING PIPE TO BE DISINFECTED PRIOR TO INSTALLATION OF TAPPING SLEEVE AND TAPPING SLEEVE IS TO BE PRESSURE TESTED TO OPERATING PRESSURE PLUS 50 PERCENT PRIOR TO MAKING PRESSURE CONNECTION.
4. DO NOT USE STAINLESS STEEL SLEEVE ON SIZE ON SIZE TAPS OR PIPES LARGER THAN 12" DIAMETER.
5. IN THE EVENT IT IS NECESSARY TO USE A PRECAST SPLIT BOTTOM FLOOR DUE TO SPACE CONSTRAINTS THE FLOOR MUST BE GROUTED WATER TIGHT.
6. TAPPING VALVES SHALL CONFORM TO C515–09: AMERICAN SERIES 2500 RESILIENT WEDGE TAPPING VALVES WITH FLANGED X MECHANICAL JOINT ENDS OR APPROVED EQUAL.

City of Naperville STANDARD DETAIL | VALVE VAULT WITH STAINLESS STEEL SLEEVE PRESSURE TAP | WATER 3 | 490.03 | REVISED: 01/01/2013 | SHEET 1 OF 1



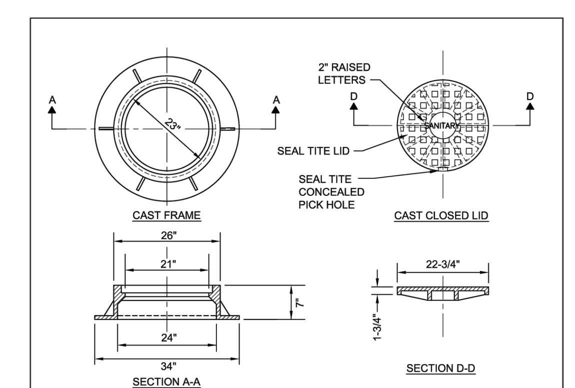
1.) USE MEGALUG SERIES 1100 OR FORD UNI–FLANGE SERIES 1400 RETAINER GLANDS WITH STAINLESS STEEL T–BOLTS COATED WITH ANTI–SIEZE COMPOUND.
2) TAPPING SLEEVES SHALL BE CAST OR DUCTILE IRON MECHANICAL JOINT CONFORMING TO ANSI/AWWA C110/A21.10–82 (TYLER/UNION OR APPROVED EQUAL). EXISTING PIPE TO BE DISINFECTED PRIOR TO INSTALLATION OF TAPPING SLEEVE. TAPPING SLEEVE TO BE PRESSURE TESTED HYDROSTATICALLY TO OPERATING PRESSURE PLUS 50 PERCENT PRIOR TO MAKING PRESSURE CONNECTION.
3) EXISTING PIPE TO BE DISINFECTED PRIOR TO INSTALLATION OF TAPPING SLEEVE AND TAPPING SLEEVE IS TO BE PRESSURE TESTED TO OPERATING PRESSURE PLUS 50 PERCENT PRIOR TO MAKING PRESSURE CONNECTION.
4) DO NOT USE STAINLESS STEEL SLEEVE ON SIZE TAPS OR PIPES LARGER THAN 12" DIAMETER
5) IN THE EVENT IT IS NECESSARY TO USE A PRECAST SPLIT BOTTOM FLOOR DUE TO SPACE CONSTRAINTS THE FLOOR MUST BE GROUTED WATER TIGHT.
6) TAPPING VALVES SHALL CONFORM TO C515–09 OR LATEST REVISION: AMERICAN SERIES 2500 RESILIENT WEDGE TAPPING VALVES WITH FLANGED X MECHANICAL JOINT ENDS OR APPROVED EQUAL.

City of Naperville STANDARD DETAIL | VALVE VAULT WITH CAST/DUCTILE IRON SLEEVE PRESSURE TAP | WATER 2 | 490.02 | REVISED: 01/01/2013 | SHEET 1 OF 1



1. VALVE MUST ALIGN WITH THE CENTER OF VAULT OPENINGS.
2. CONCENTRIC CONES TO BE USED FOR VALVES 12" AND SMALLER.
3. VALVES SHALL BE RESILIENT WEDGE GATE VALVES WITH MECHANICAL JOINT ENDS TO COMPLY WITH ANSI/AWWA C515–09 OR LATEST VERSION VALVES TO BE CLOW, AMERICAN, WATEROUS, KENNEDY OR APPROVED EQUAL.
4. ALL RINGS SHALL BE HIGH DENSITY POLYETHYLENE PLASTIC (HDPE), RECYCLED RUBBER, HIGH DENSITY EXPANDING POLYSTYRENE, EXPANDED POLYPROPYLENE (EPP), OR OTHER MATERIAL AS APPROVED BY THE CITY ENGINEER. PRECAST CONCRETE RINGS, BRICKS, ROCKS, SHIMS, OR CONCRETE BLOCKS WILL NOT BE ALLOWED. TAPERED ADJUSTING RINGS SHALL BE REQUIRED WHEN THE FRAME WILL NEED TO MATCH THE SLOPE OF THE ROADWAY.

City of Naperville STANDARD DETAIL | VALVE VAULT | WATER 1 | 490.01 | REVISED: 10/03/2023 | SHEET 1 OF 1



NOTES:

1) DUCTILE IRON SHALL BE GRADE 65-45-12 AND SHALL BE TESTED IN ACCORDANCE WITH FEDERAL SPECIFICATIONS.

2) ALL FRAMES AND COVERS SHALL HAVE MACHINED HORIZONTAL AND VERTICAL BEARING SURFACES. PICK HOLES SHALL NOT CREATE OPENINGS IN THE COVER.

3) THE MANHOLE COVERS SHALL HAVE 2" RAISED LETTERS AS SHOWN.

4) ALTERNATIVE TO DUCTILE IRON LID, GREY IRON CL 35 LID MAY BE USED.

5) CASTINGS ARE SHALL BE EAST JORDAN 1022-Z3; NEENAH R-1772 OR APPROVED EQUAL.

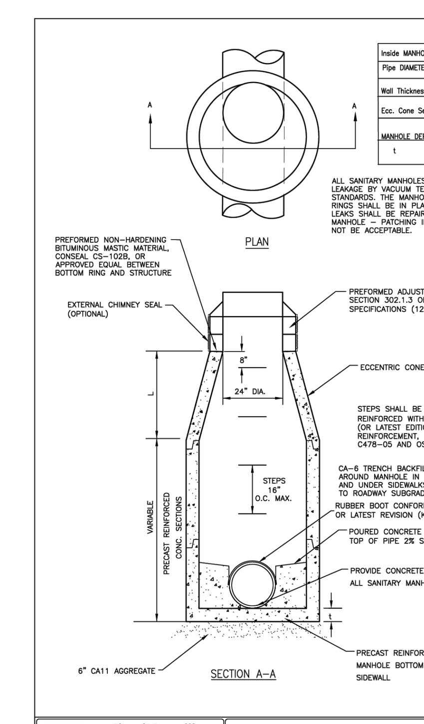
6) WATERPROOF, BOLTDOWN FRAME AND COVER SHALL BE USED IN FLOOD PLAIN AREA, AND AS NOTED ON THE PLANS. NEENAH R-1916-F1, EAST JORDAN IRON WORKS 1022-Z1PT OR APPROVED EQUAL.

7. LIDS AND FRAMES TO MEET ASSHTO M306 PROOF LOADING SPECIFICATIONS

City of Naperville STANDARD DETAIL | SANITARY MANHOLE - FRAME & COVER | SANITARY 6 | 390.06 | REVISED: 01/01/2013 | SHEET 1 OF 1

Inside MANHOLE DIAMETER	48"	60"
Pipe DIAMETER	≤21"	>21"
Wall Thickness	5"	6"
Ecc. Cone Sec.(L)	2'-6"	3'-9"
MANHOLE DEPTH	≤12'	>12'
t	8"	10"

ALL SANITARY MANHOLES SHALL BE TESTED FOR LEAKAGE BY VACUUM TESTING PER CITY STANDARDS. THE MANHOLE FRAME AND ADJUSTING RINGS SHALL BE IN PLACE WHEN TESTING. ANY LEAKS SHALL BE REPAIRED FROM EXTERIOR OF MANHOLE – PATCHING INSIDE OF MANHOLE SHALL NOT BE ACCEPTABLE.



City of Naperville STANDARD DETAIL | SANITARY SEWER MANHOLE | SANITARY 1 | 390.01 | REVISED: 08/01/2018 | SHEET 1 OF 1

NOTE: IF SPECIFICATIONS AND/OR DETAILS PROVIDED IN THESE PLANS CONFLICT WITH THE CITY OF NAPERVILLE SPECIFICATIONS AND/OR DETAILS, THE CITY OF NAPERVILLE SHALL SUPERCEDE.

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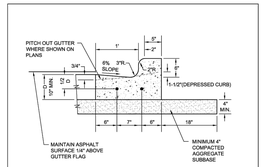
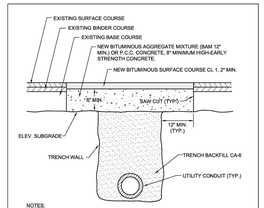


NOTES:

1. 3/4" PREFORMED BITUMINOUS EXPANSION JOINT WITH TWO (2) NUMBER 6 COATED SMOOTH DOWEL BARS (94" DIA. X 18") WITH GREASE CAPS SHALL BE PLACED EVERY 150', 10' EITHER SIDE OF DRAINAGE STRUCTURES, P.C.'S, RADIUS POINTS AND BACK OF CUL-DE-SACS. WHEN EXPANSION JOINTS ARE CONSTRUCTED ADJACENT TO EXISTING CURB & GUTTER THE EXISTING CURB SHALL BE DRILLED AND TWO (2) NUMBER 6 COATED SMOOTH DOWEL BARS (94" X 18") GROUTED IN PLACE. GREASE CAPS SHALL BE PLACED ON THE SIDE OF THE NEW CURB AND GUTTER SHALL HAVE A PINCHED STOP THAT WILL PROVIDE A MINIMUM 1" EXPANSION.
2. TOOLED CONTROL JOINTS OR SAWCUTS SHALL BE MADE EVERY 15'.
3. SAWCUTS SHALL BE MADE WITHIN TWENTY-FOUR (24) HOURS AND SEALED WITH A CITY APPROVED JOINT SEALANT. JOINTS SHALL BE CLEAN AND DRY PRIOR TO APPLICATION OF SEALANT.
4. FOR CURB AND GUTTER CONSTRUCTED OVER UTILITY TRENCHES, TWO (2) EPOXY COATED REINFORCING BARS (NO. 4) SHALL BE PLACED IN THE CURB AND GUTTER, CENTERED OVER THE TRENCH.

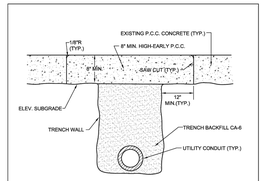
City of Naperville STANDARD DETAIL | B6.12 BARRIER CURB & GUTTER | REVISED: 01/01/2013 | SHEET 1 OF 1 | PAVEMENT 20 | 590.20



NOTES:

1. THE TRENCH SHALL BE BACKFILLED WITH AGGREGATE (CA-6) AND COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY. TRENCH SPOILS OR EXCAVATED MATERIAL SHALL BE DISCARDED BY THE CONTRACTOR, AT HIS EXPENSE, AT DUMP SITES OR IN A SUITABLE FASHION AS APPROVED BY THE CITY ENGINEER.
2. PRIOR TO PLACING OF P.C.C. CONCRETE, THE EXPOSED EDGES OF ALL EXISTING PAVEMENT SHALL BE SAW CUT TO PROVIDE A SMOOTH, CLEAN EDGE, FREE OF LOOSE MATERIAL.
3. EXCAVATIONS SHALL BE PROTECTED BY BARRICADES WITH FLASHING LIGHTS. A 1" STEEL PLATE SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR AT LOCATIONS WHERE ADJUSTMENTS ARE LOCATED IN TRAVEL LANES UNTIL THE SURFACE RESTORATION IS COMPLETE. THE PLATE SHALL BE PROTECTED FROM SLIDING AND PROVIDED WITH BITUMINOUS RAMPS.
4. TRENCH TO BE COMPACTED IN CONFORMANCE WITH ARTICLE 603.08(METHOD 3) OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

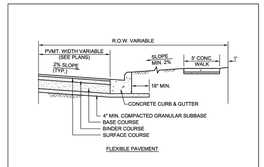
City of Naperville STANDARD DETAIL | UTILITY TRENCH PAVING SECTION (FLEXIBLE PAVEMENTS) | REVISED: 01/01/2013 | SHEET 1 OF 1 | PAVEMENT 13 | 590.13

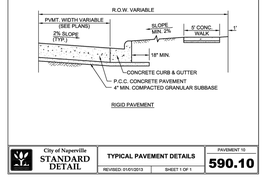


NOTES:

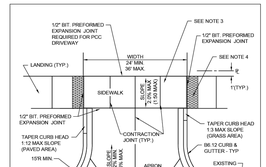
1. THE TRENCH SHALL BE BACKFILLED WITH AGGREGATE (CA-6) AND COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY. TRENCH SPOILS OR EXCAVATED MATERIAL SHALL BE DISCARDED BY THE CONTRACTOR, AT HIS EXPENSE, AT DUMP SITES OR IN A SUITABLE FASHION AS APPROVED BY THE CITY ENGINEER.
2. PRIOR TO PLACING OF P.C.C. CONCRETE, THE EXPOSED EDGES OF ALL EXISTING PAVEMENT SHALL BE SAW CUT TO PROVIDE A SMOOTH, CLEAN EDGE, FREE OF LOOSE MATERIAL.
3. EXCAVATIONS SHALL BE PROTECTED BY BARRICADES WITH FLASHING LIGHTS. A 1" STEEL PLATE SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR AT LOCATIONS WHERE ADJUSTMENTS ARE LOCATED IN TRAVEL LANES UNTIL THE SURFACE RESTORATION IS COMPLETE. THE PLATE SHALL BE PROTECTED FROM SLIDING AND PROVIDED WITH BITUMINOUS RAMPS.
4. TRENCH TO BE COMPACTED IN CONFORMANCE WITH ARTICLE 603.08 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

City of Naperville STANDARD DETAIL | UTILITY TRENCH PAVING SECTION (RIGID PAVEMENTS) | REVISED: 01/01/2013 | SHEET 1 OF 1 | PAVEMENT 12 | 590.12





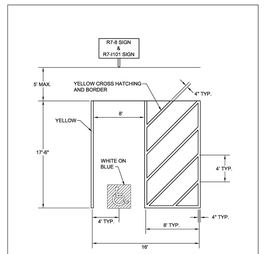
City of Naperville STANDARD DETAIL | TYPICAL PAVEMENT DETAILS | REVISED: 01/01/2013 | SHEET 1 OF 1 | PAVEMENT 10 | 590.10



NOTES:

1. ALL AGGREGATE SUB-BASE SHALL BE MECHANICALLY COMPACTED.
2. SIDEWALK THICKNESS ACROSS DRIVEWAYS SHALL BE A MINIMUM OF 8" PCC ON 4" AGGREGATE SUB-BASE.
4. EXPANSION JOINT MATERIAL MUST MATCH THE FULL DEPTH OF THE PAVEMENT.
5. DETECTABLE WARNINGS SHALL ONLY BE INSTALLED AT DRIVEWAYS WITH PERMANENT TRAFFIC CONTROL DEVICES.
6. SIDEWALK CONSTRUCTION SHALL FOLLOW APPLICABLE IDOT STANDARDS.
7. SIDEWALKS SHALL FOLLOW CURRENT ADA GUIDELINES.

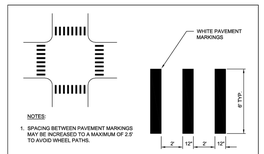
City of Naperville STANDARD DETAIL | TYPICAL COMMERCIAL DRIVEWAY DETAIL | REVISED: 08/01/2016 | SHEET 1 OF 1 | PAVEMENT 5 | 590.05



NOTE:

FOR MULTIPLE ACCESSIBLE PARKING SPACES IN A ROW, THE DESIGN ENGINEER HAS THE OPTION OF USING THE ABOVE SHOWN UNIT IN A COMBINATION OF LEFT-HANDED AND RIGHT-HANDED LAYOUTS IF IT PROVIDES FOR BETTER SITE DESIGN.

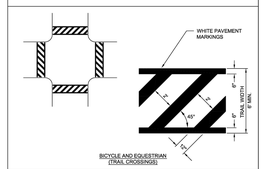
City of Naperville STANDARD DETAIL | ACCESSIBLE PARKING SPACE MARKINGS | REVISED: 10/04/2023 | SHEET 2 OF 3 | PAVEMENT 35 | 590.35



NOTES:

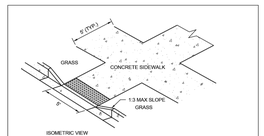
1. SPACING BETWEEN PAVEMENT MARKINGS MAY BE INCREASED TO A MAXIMUM OF 2.5' TO AVOID WHEEL PATHS.

SCHOOL AND PEDESTRIAN



BICYCLE AND EQUESTRIAN (TRAIL CROSSINGS)

City of Naperville STANDARD DETAIL | CROSSWALK | REVISED: 08/14/2013 | SHEET 1 OF 1 | PAVEMENT 33 | 590.33



ISOMETRIC VIEW

NOTES:

1. ALL AGGREGATE SUB-BASE SHALL BE MECHANICALLY COMPACTED.
2. SIDEWALK THICKNESS AT CURB RAMPS SHALL BE A MINIMUM OF 6" PCC ON 4" AGGREGATE SUB-BASE.
3. SIDEWALK CONSTRUCTION SHALL FOLLOW APPLICABLE IDOT STANDARDS.
4. SIDEWALKS SHALL FOLLOW CURRENT ADA GUIDELINES.

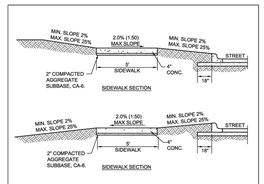
APPLICABLE IDOT STANDARD DETAILS (USE LATEST REVISION:

424001-XX	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424006-XX	DIAGONAL CURB RAMPS FOR SIDEWALKS
424011-XX	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
424016-XX	MID-BLOCK CURB RAMPS FOR SIDEWALKS
424021-XX	DEPRESSED CORNER FOR SIDEWALKS
424026-XX	PEDESTRIAN CURB RAMP PLACEMENTS
424031-XX	MEDIAN PEDESTRIAN CROSSINGS
606001-XX	CONCRETE CURB TYPE B AND COMB CONCRETE CURB AND GUTTER

APPROVED ADA DETECTABLE WARNING TILES:

1. ADA SOLUTIONS - CAST IN PLACE REPLACEABLE
2. ARMOR TILE - CAST IN PLACE
3. DETECTILE - SLIMTIK II
4. TUFTILE - POLYMER WET-SET

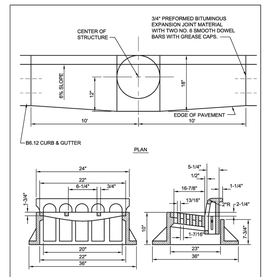
City of Naperville STANDARD DETAIL | CURB RAMPS | REVISED: 08/01/2016 | SHEET 1 OF 1 | PAVEMENT 32 | 590.32



NOTES:

1. CONCRETE SHALL BE IDOT CLASS SI.
2. MINIMUM SIDEWALK THICKNESS SHALL BE 4".
3. SIDEWALK THICKNESS ACROSS DRIVEWAYS SHALL BE AT A MINIMUM 8" FOR 4" AGGREGATE SUB-BASE AND 9" FOR COMMERCIAL DRIVEWAYS.
4. MAXIMUM LONGITUDINAL SLOPE SHALL NOT EXCEED 5% (20:1). FOR ANY SLOPE IN EXCESS OF 5%, ALL REQUIREMENTS OF THE ILLINOIS ACCESSIBILITY CODE (LATEST EDITION) SHALL BE MET.
5. MINIMUM TRANSVERSE SLOPE SHALL BE 1.0% (1:100). MAXIMUM TRANSVERSE SLOPE SHALL BE 2.0% (1:50).
6. A MINIMUM 2" AGGREGATE SUBBASE (CA-6) SHALL BE PROVIDED. (4" THROUGH DRIVEWAYS.)
7. AGGREGATE SUBBASE SHALL BE MECHANICALLY COMPACTED.
8. ALL SIDEWALKS SHALL BE PROMPTLY BACKFILLED AND PROTECTED FROM DAMAGE.
9. SIDEWALK CONSTRUCTION SHALL FOLLOW APPLICABLE IDOT STANDARDS.
10. SIDEWALKS SHALL FOLLOW CURRENT ADA GUIDELINES.

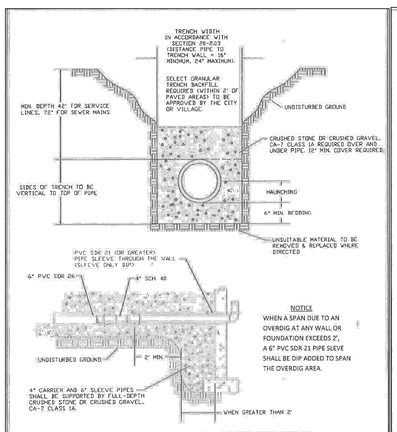
City of Naperville STANDARD DETAIL | SIDEWALK | REVISED: 01/01/2013 | SHEET 1 OF 1 | PAVEMENT 30 | 590.30



NOTES:

1. GRATE & CASTING SHALL BE EAST JORDAN 7220 OR NEENAH R-3278-A OR AS APPROVED BY THE CITY ENGINEER.
2. ALL CASTINGS SHALL BE SHOP PAINTED WITH AN ASPHALTIC BASE.

City of Naperville STANDARD DETAIL | B6.12 BARRIER CURB & GUTTER AT CURB INLETS | REVISED: 01/01/2013 | SHEET 1 OF 1 | PAVEMENT 21 | 590.21

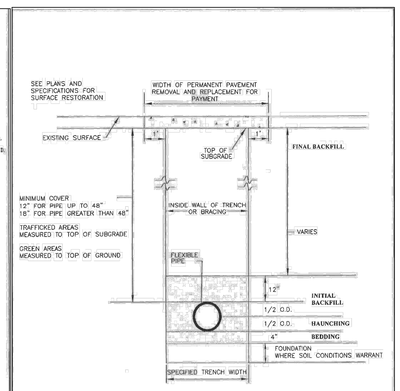


NOTICE

WHEN A SPAN DUE TO AN OVERDIG AT ANY WALL OR FOUNDATION EXCEEDS 2', A 6" PVC SDR 21 PIPE SLEVE SHALL BE DIP ADDED TO SPAN THE OVERDIG AREA.

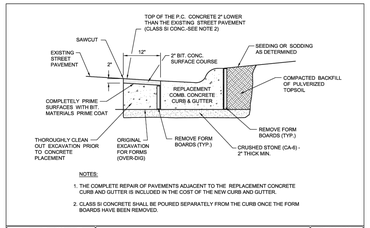
TRENCH DETAIL FOR SANITARY SERVICES & MAINS

DESIGNED FMWRD	REVISION		2012
DRAWN KWZ	B Dimension Revision		10/11/06
APPROVED MF	C Revised 2004		01/05/04
DATE 05-12-00	D State Note		01/05/04
SCALE NTS	E 07 Revisions		08/16/07
SHEET 1	CAD DWG.	REVISION	E
OF 1	JOB NO.		



FLEXIBLE PIPE INSTALLATION DETAIL

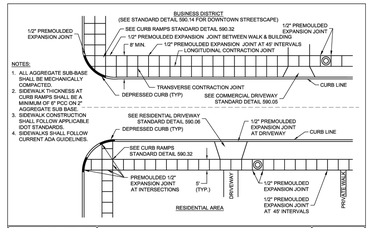
STANDARD DRAWING NO.2



NOTES:

1. THE COMPLETE REPAIR OF PAVEMENTS ADJACENT TO THE REPLACEMENT CONCRETE CURB AND GUTTER IS INCLUDED IN THE COST OF THE NEW CURB AND GUTTER.
2. CLASS SI CONCRETE SHALL BE POURED SEPARATELY FROM THE CURB ONCE THE FORM BOARDS HAVE BEEN REMOVED.

City of Naperville STANDARD DETAIL | CURB REPLACEMENT | REVISED: 08/16/2016 | SHEET 1 OF 1 | PAVEMENT 24 | 590.24



NOTES:

1. ALL AGGREGATE SUB-BASE SHALL BE MECHANICALLY COMPACTED.
2. SIDEWALK THICKNESS AT CURB RAMPS SHALL BE A MINIMUM OF 6" PCC ON 2" AGGREGATE SUB BASE.
3. SIDEWALK CONSTRUCTION SHALL FOLLOW APPLICABLE IDOT STANDARDS.
4. SIDEWALKS SHALL FOLLOW CURRENT ADA GUIDELINES.

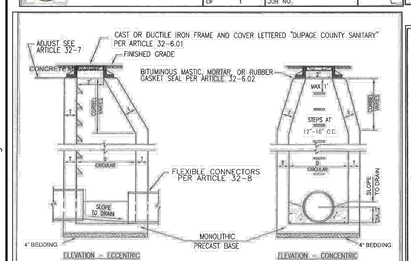
City of Naperville STANDARD DETAIL | SIDEWALK CONSTRUCTION | REVISED: 01/01/2013 | SHEET 1 OF 1 | PAVEMENT 31 | 590.31

NOTES FOR ACCESSIBLE PARKING SPACES:

1. EACH PARKING SPACE SHALL BE AT LEAST 16' WIDE, WITH AN 8' WIDE ACCESS AISLE
2. TWO PARKING SPACES MAY SHARE AN ACCESS AISLE EXCEPT FOR ANGLED PARKING SPACES.
3. PARKING SPACE IDENTIFICATION SIGN WITH INTERNATIONAL SYMBOL OF ACCESSIBILITY (R7-8) SHALL BE MOUNTED ON A PERMANENT POST OR WALL AT THE FRONT CENTER OF THE ACCESSIBLE PARKING SPACE, SET AT A MINIMUM OF 5' ABOVE THE GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN AND NO MORE THAN 3' HORIZONTALLY FROM THE FRONT OF A PARKING SPACE.
4. ACCESSIBLE PARKING SIGNS SHALL ALSO EXHIBIT THE WORDS "$250 FINE" OR THE "$250 FINE" SIGN (R7-11D1) SHALL BE PLACED BENEATH THE ACCESSIBLE PARKING SIGN (R7-8).
5. PARKING SPACES DESIGNED FOR PERSONS WITH DISABILITIES AND ACCESSIBLE PASSENGER LOADING ZONES THAT SERVE A PARTICULAR BUILDING, SHALL BE LOCATED ON THE SHORTEST POSSIBLE ACCESSIBLE CIRCULATION ROUTE TO AN ACCESSIBLE ENTRANCE OF THE BUILDING.
6. IN SEPARATE PARKING STRUCTURES OR LOTS THAT DO NOT SERVE A PARTICULAR BUILDING, PARKING SPACES FOR PERSONS WITH DISABILITIES SHALL BE LOCATED ON THE SHORTEST POSSIBLE CIRCULATION ROUTE TO AN ACCESSIBLE PEDESTRIAN ENTRANCE OF THE PARKING FACILITY.

# OF ACCESSIBLE SPACES REQUIRED PER # OF OFF STREET PARKING	
TOTAL OFF STREET PARKING SPACES REQUIRED	REQUIRED MINIMUM NUMBER OF ACCESSIBLE PARKING SPACES
1 TO 25	1
26 TO 50	2
51 TO 75	3
76 TO 100	4
101 TO 150	5
151 TO 200	6
201 TO 300	7
301 TO 400	8
401 TO 500	9
501 TO 1000	2% OF TOTAL NUMBER
OVER 1000	20 PLUS 1 FOR EACH 100 OVER 1000

City of Naperville STANDARD DETAIL | ACCESSIBLE PARKING SPACE MARKINGS | REVISED: 10/04/2023 | SHEET 3 OF 3 | PAVEMENT 35 | 590.35



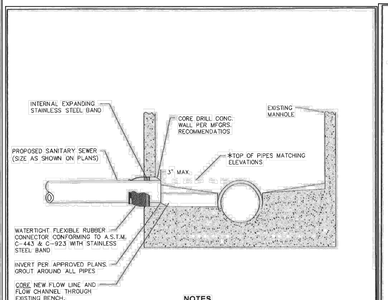
ALT. MATERIALS FOR WALLS	D	T (MIN.)
PRECAST REIN. CONCRETE SECT.	4 FEET	4 IN
	5 FEET	5 IN
	6 FEET	6 IN

NOTE: SANITARY MANHOLES SUBJECT TO SATURATED SOIL CONDITIONS OR SURFACE SUBSURFACE AND ASHPHALT EMULSION SHALL BE EQUIPPED WITH CHIMNEY SEALS AND WATER TIGHT MANHOLE COVERS FOR ALL DUPAGE COUNTY MANHOLES.

NOTE: MANHOLE STEPS WHEN REQUIRED, SHALL BE FURNISHED AND INSTALLED AS SHOWN ON THE PLANS IN ACCORDANCE WITH ARTICLE 32-5

TYPICAL SANITARY MANHOLE "A"

REFERENCE SECTION 32 FOR SANITARY SEWER MANHOLE SPECIFICATIONS | STANDARD DRAWING NO.3aam



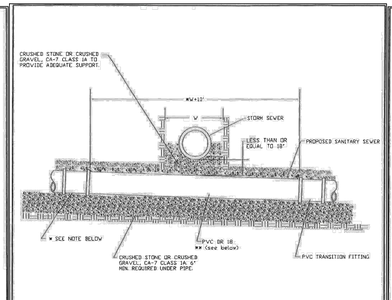
NOTES

* TO ESTABLISH NEW INVERT; MATCH THE ELEVATION OF THE TOP OF INCOMING PIPE TO EXISTING OUTGOING PIPE(S). FOR EXISTING SEWERS 15" OR GREATER, SEE APPROVED PLANS.

SERVICES: NO DROP CONNECTIONS ALLOWED. WHERE DEEPER MANHOLES EXIST, CORE AT THE MANHOLE BOTTOM PER ABOVE WITH A SINGLE CONNECTION; THEN USE TWO 45 DEGREE FITTINGS TO ESTABLISH UPSTREAM LINE/GRADE.

PIPE TO EXISTING MANHOLE CONNECTION

DESIGNED FMWRD	REVISION		2012
DRAWN KWZ	D Revision to Note		01/05/04
APPROVED JH	D Flow Channel Rev.		03/05/09
DATE 05-15-00	E Crout Note		03/04/07
SCALE NTS	F Note Additions		03/28/08
SHEET 1	CAD DWG.	REVISION	F
OF 1	JOB NO.		



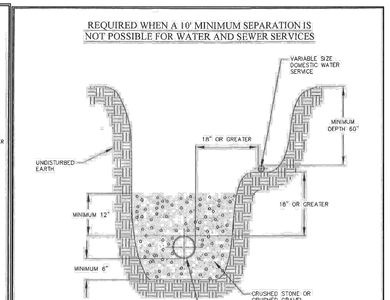
NOTE

* SHOW DR 18 THROUGHOUT CONFLICT AREA, (PER ABOVE) TO ANY PROPOSED MANHOLE, IF SAID STRUCTURE IS WITHIN 30' OF CENTERLINE OF THE CROSSING.

** IN LIEU OF ABOVE STANDARD METHOD, DR 18 MAY BE INSTALLED MANHOLE TO MANHOLE.

SANITARY SEWER AT STORM SEWER CROSSING

DESIGNED FMWRD	REVISION		2012
DRAWN KWZ	D Revised 2004		01/05/04
APPROVED JH	C Note Revision		10/06/06
DATE 05-15-00	F Fitting & Note Revision		03/04/07
SCALE NTS	G Dimension Change		03/28/08
SHEET 1	CAD DWG.	REVISION	G
OF 1	JOB NO.		



NOTE

INSTALL PER "77 ILL. ADMIN. CODE PART 890 ILLINOIS PLUMBING CODE" LATEST EDITION.

SANITARY SEWER SERVICE & POTABLE WATER SERVICE SEPARATION

DESIGNED FMWRD	REVISION		2012
DRAWN KWZ	A Revised 2004		01/05/04
APPROVED MF	B Depth Note		03/03/05
DATE 08-28-00	C Note Revision		03/28/08
SCALE NTS			
SHEET 1	CAD DWG.	REVISION	C
OF 1	JOB NO.		

NOTE: IF SPECIFICATIONS AND/OR DETAILS PROVIDED IN THESE PLANS CONFLICT WITH THE CITY OF NAPERVILLE SPECIFICATIONS AND/OR DETAILS, THE CITY OF NAPERVILLE SHALL SUPERCEDE.

No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

DETAILS

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

JACOB & HEFNER ASSOCIATES
1333 Butterfield Rd, Suite 300, Downers Grove, IL 60515
PHONE: (630) 652-4600, FAX: (630) 652-4601
www.jacobandhefner.com

H477a

N.T.S.

C9.1

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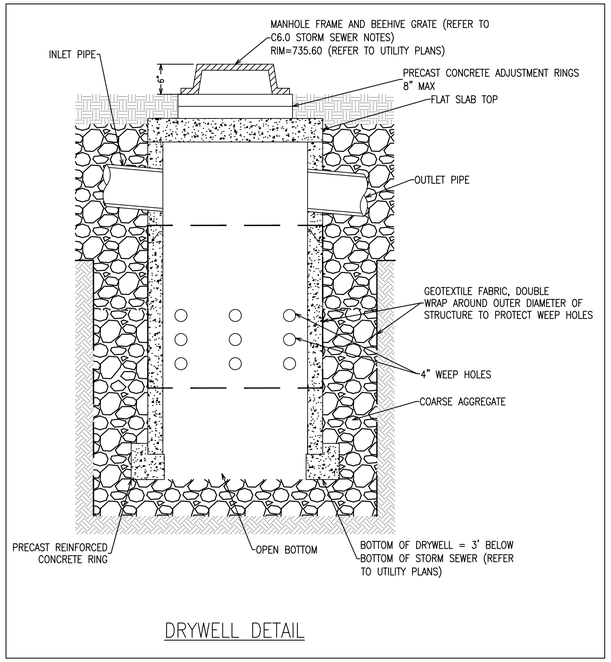
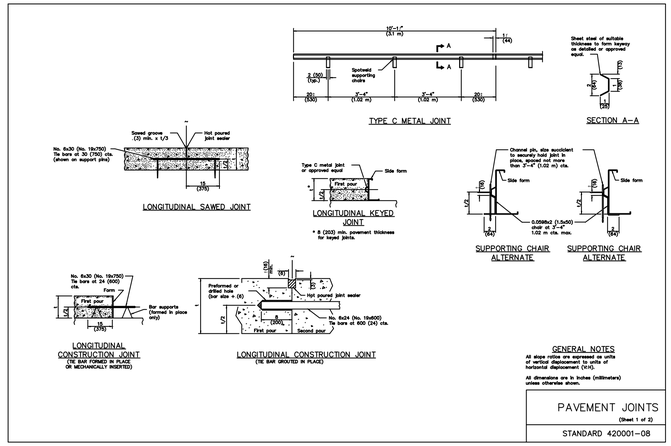


DRYWELL DETAIL



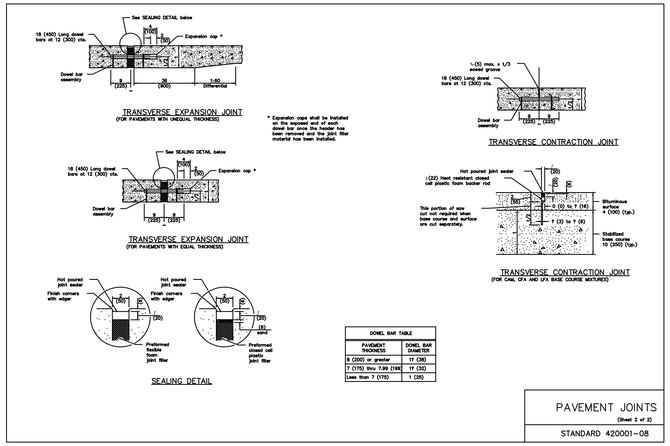
GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (X:H).

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

PAVEMENT JOINTS (Sheet 1 of 2)

STANDARD 420001–08



DOWEL BAR TABLE	
PAVEMENT THICKNESS	DOWEL BAR DIAMETER
8 (200) or greater	1T (38)
7 (175) thru 7.99 (199)	1T (32)
Less than 7 (175)	1 (25)

PAVEMENT JOINTS (Sheet 2 of 2)

STANDARD 420001–08

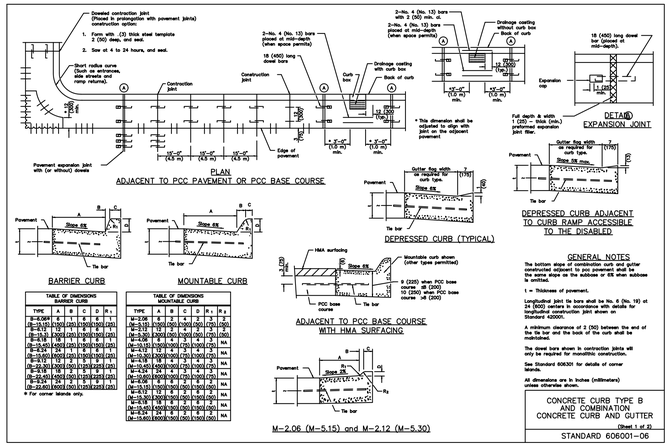


TABLE OF DIMENSIONS BARRIER CURB						
TYPE	A	B	C	D	R	R_2
B-6.24M	1	1	6	6	1	
B-6.12	1 (25)	1 (25)	6 (150)	6 (150)	1 (25)	
B-6.24	1 (25)	1 (25)	6 (150)	6 (150)	1 (25)	
B-9.12	1 (25)	1 (25)	9 (225)	6 (150)	1 (25)	
B-9.24	1 (25)	1 (25)	9 (225)	6 (150)	1 (25)	
B-12.12	1 (25)	1 (25)	12 (300)	6 (150)	1 (25)	
B-12.24	1 (25)	1 (25)	12 (300)	6 (150)	1 (25)	
B-6.24M	1 (25)	1 (25)	6 (150)	6 (150)	1 (25)	
B-6.12	1 (25)	1 (25)	6 (150)	6 (150)	1 (25)	
B-6.24	1 (25)	1 (25)	6 (150)	6 (150)	1 (25)	
B-9.12	1 (25)	1 (25)	9 (225)	6 (150)	1 (25)	
B-9.24	1 (25)	1 (25)	9 (225)	6 (150)	1 (25)	
B-12.12	1 (25)	1 (25)	12 (300)	6 (150)	1 (25)	
B-12.24	1 (25)	1 (25)	12 (300)	6 (150)	1 (25)	
B-6.24M	FA	1	6	6	1	
B-12.24M	1 (25)	1 (25)	12 (300)	6 (150)	1 (25)	

* For corner islands only.

TABLE OF DIMENSIONS MOUNTABLE CURB							
TYPE	A	B	C	D	R	R_2	
M-2.06	1	1	6	6	1	1	
M-5.15	1 (25)	1 (25)	6 (150)	6 (150)	1 (25)	1 (25)	
M-5.30	1 (25)	1 (25)	6 (150)	6 (150)	1 (25)	1 (25)	
M-2.12	1 (25)	1 (25)	9 (225)	6 (150)	1 (25)	1 (25)	
M-5.15	1 (25)	1 (25)	9 (225)	6 (150)	1 (25)	1 (25)	
M-5.30	1 (25)	1 (25)	9 (225)	6 (150)	1 (25)	1 (25)	
M-2.12	1 (25)	1 (25)	12 (300)	6 (150)	1 (25)	1 (25)	
M-5.15	1 (25)	1 (25)	12 (300)	6 (150)	1 (25)	1 (25)	
M-5.30	1 (25)	1 (25)	12 (300)	6 (150)	1 (25)	1 (25)	
M-2.06	1	1	6	6	1	1	NA
M-5.15	1 (25)	1 (25)	6 (150)	6 (150)	1 (25)	1 (25)	NA
M-5.30	1 (25)	1 (25)	6 (150)	6 (150)	1 (25)	1 (25)	NA
M-2.12	1 (25)	1 (25)	9 (225)	6 (150)	1 (25)	1 (25)	NA
M-5.15	1 (25)	1 (25)	9 (225)	6 (150)	1 (25)	1 (25)	NA
M-5.30	1 (25)	1 (25)	9 (225)	6 (150)	1 (25)	1 (25)	NA
M-2.12	1 (25)	1 (25)	12 (300)	6 (150)	1 (25)	1 (25)	NA
M-5.15	1 (25)	1 (25)	12 (300)	6 (150)	1 (25)	1 (25)	NA
M-5.30	1 (25)	1 (25)	12 (300)	6 (150)	1 (25)	1 (25)	NA

GENERAL NOTES

The bottom slope of combination curb and gutter constructed adjacent to pcc pavement shall be the same slope as the subbase or EK when subbase is omitted.

t = Thickness of pavement.

Longitudinal joint tie bars shall be No. 6 (No. 19) at 24 (600) centers in accordance with details for longitudinal construction joint shown on Standard 420001.

A minimum clearance of 2 (50) between the end of the tie bar and the back of the curb shall be maintained.

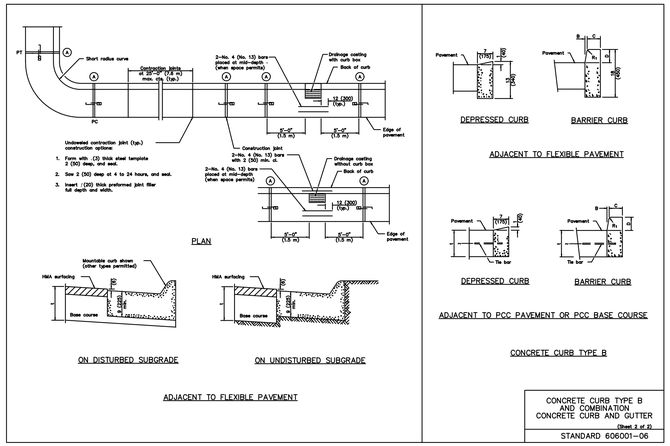
The dowel bars shown in contraction joints will only be required for monolithic construction.

See Standard 606301 for details of corner islands.

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

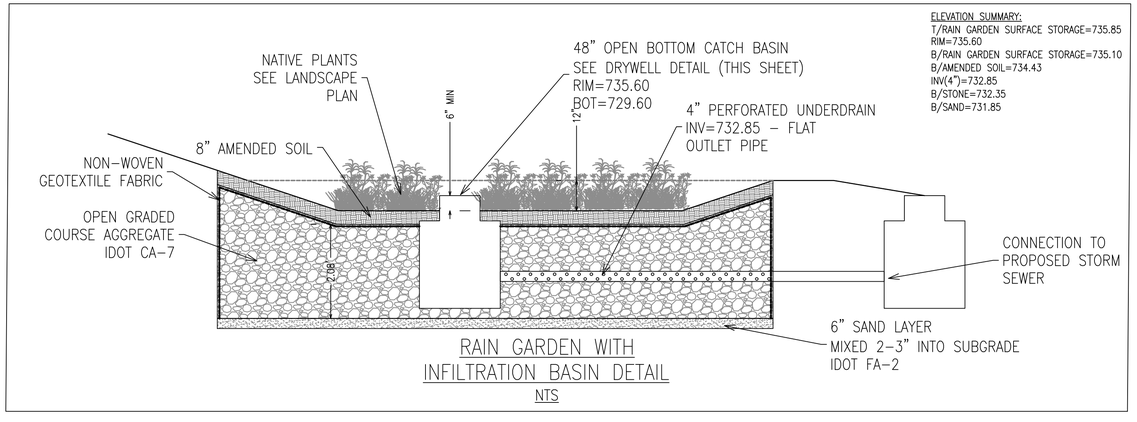
CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER (Sheet 1 of 2)

STANDARD 606001–06



CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER (Sheet 2 of 2)

STANDARD 606001–06



ELEVATION SUMMARY:
T/RAIN GARDEN SURFACE STORAGE=735.85
RIM=735.60
B/RAIN GARDEN SURFACE STORAGE=735.10
B/AMENDED SOIL=734.43
INV(4")=732.85
B/STONE=732.35
B/SAND=731.85

RAIN GARDEN WITH INFILTRATION BASIN DETAIL

NTS

NOTE: IF SPECIFICATIONS AND/OR DETAILS PROVIDED IN THESE PLANS CONFLICT WITH THE CITY OF NAPERVILLE SPECIFICATIONS AND/OR DETAILS, THE CITY OF NAPERVILLE SHALL SUPERCEDE.

No.	Description	Date
4	REVISED PER CITY COMMENTS	09/26/25
3	REVISED PER CITY COMMENTS	07/31/25
2	REVISED PER CITY COMMENTS	6/12/25
1	ORIGINAL PLAN DATE	4/7/25

DETAILS

1960 WEST LUCENT LANE
NAPERVILLE, ILLINOIS
KARIS CRITICAL

JACOB & HEFNER ASSOCIATES
1333 Butterfield Rd, Suite 300, Downers Grove, IL 60515
PHONE: (630) 652-4600, FAX: (630) 652-4601
www.jacobandhefner.com

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N.T.S.

C9.2

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