

CARDINAL LIQUORS

SITE IMPROVEMENT PLANS

ROMEOWILLE, ILLINOIS

GENERAL NOTES

THE FOLLOWING STANDARD SPECIFICATIONS AND NOTES AND THE NOTES, DRAWINGS, AND DETAILS FOUND THROUGHOUT THESE PLAN SHEETS (FINAL PLANS AND SPECIFICATIONS) ARE MEANT TO ASSIST IN THE CONSTRUCTION OF VARIOUS IMPROVEMENTS. THESE FINAL PLANS AND SPECIFICATIONS ARE NOT MEANT TO DEFINE A CONTRACTUAL RELATIONSHIP BETWEEN THE OWNER, M. GINGERICH, GEREAX & ASSOCIATES (MG&A), OR A CONTRACTOR. THE RELATIONSHIP BETWEEN THE OWNER AND MG&A IS TYPICALLY DEFINED IN A PROFESSIONAL SERVICES AGREEMENT. MG&A HAS NO CONTRACTUAL RELATIONSHIP WITH THE CONTRACTOR(S). MG&A RECOMMENDS THE OWNER AND ANY CONTRACTOR(S) USING THESE FINAL PLANS AND SPECIFICATIONS ENTER INTO AN AGREEMENT TO CLEARLY DEFINE THE OWNER'S AND CONTRACTOR'S EXPECTATIONS REGARDING, THE OWNERS RESPONSIBILITIES, THE CONTRACTORS RESPONSIBILITIES AND SCOPE OF WORK, PERFORMANCE SCHEDULE, COMPENSATION, AND OTHER GENERAL TERMS AND CONDITIONS.

STANDARD SPECIFICATIONS
1. THE ENGINEER IS M. GINGERICH, GEREAX & ASSOCIATES, 25620 SOUTH GOUGAR ROAD, MANHATTAN, ILLINOIS 60442.
2. THE OWNER CONTACT IS CARDINAL LIQUORS.
3. THE CONTRACTOR(S) ARE ALL THOSE UTILIZING THESE PLANS IN ANY WAY TO CONSTRUCT THE IMPROVEMENTS SHOWN.

STANDARD SPECIFICATIONS
CONSTRUCTION SHALL BE PERFORMED ACCORDING TO THE FOLLOWING COMMONLY REFERENCED STANDARD SPECIFICATIONS. IN CASE OF ANY CONFLICT BETWEEN THESE STANDARD SPECIFICATIONS AND THE NOTES, DRAWINGS, AND DETAILS FOUND THROUGHOUT THESE PLAN SHEETS SHALL TAKE PRECEDENCE.
1. ALL APPLICABLE ROAD IMPROVEMENTS, DRAINAGE FEATURES, LANDSCAPING, RESTORATION, WORK ZONE TRAFFIC CONTROL AND OTHER CONSTRUCTION ACTIVITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S "DOT" STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, CURRENT EDITION AND APPLICABLE STANDARDS. (IDOT SPECIFICATIONS)
2. ALL APPLICABLE SOIL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE "ILLINOIS URBAN MANUAL", CURRENT EDITION.
3. WATER MAIN, SANITARY SEWER AND STORM SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS, BY ILLINOIS SOCIETY OF PROFESSIONAL ENGINEERS, CURRENT EDITION. (ISPE SPECIFICATIONS)

GENERAL NOTES
MG&A HAS NOT BEEN RETAINED OR COMPENSATED TO PROVIDE DESIGN AND CONSTRUCTION REVIEW SERVICES RELATING TO THE CONTRACTORS SAFETY PRECAUTIONS OR TO MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED FOR THE CONTRACTOR TO PERFORM HIS WORK.
4. THE CONTRACTOR(S) SHALL COMPLY WITH ALL LOCAL AND STATE SAFETY LAWS, REGULATIONS AND ORDINANCES, AND FEDERAL SAFETY REGULATIONS AS OUTLINED IN THE LATEST REVISIONS OF THE FEDERAL CONSTRUCTION SAFETY STANDARDS AND WITH ALL PROVISIONS AND REGULATIONS OF THE OSHA STANDARDS. EACH CONTRACTOR IS RESPONSIBLE FOR PROVIDING A SAFE WORKING PLACE FOR HIS EMPLOYEES. CONTRACTOR(S) ARE RESPONSIBLE FOR THE SUPERVISION, DIRECTION AND CONDUCT OF THEIR EMPLOYEES, AGENTS, MATERIAL SUPPLIERS AND VENDORS.
5. TRAFFIC CONTROL SHALL BE USED WHEN APPROPRIATE AND SHALL BE IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARDS. SUCH TRAFFIC CONTROL SHALL BE CONSIDERED INCIDENTAL TO THE WORK UNLESS OTHERWISE SPECIFIED IN AN AGREEMENT BETWEEN THE OWNER AND CONTRACTOR.
6. THE DRAWINGS, SPECIFICATIONS, IDEAS, DESIGNS AND ARRANGEMENTS PRESENTED ON THESE DRAWINGS ARE AND SHALL REMAIN THE PROPERTY OF MG&A, AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS OR USED IN CONNECTION WITH ANY WORK OR PROJECT FOR WHICH THEY HAVE BEEN PREPARED AND DEVELOPED WITHOUT THE WRITTEN CONSENT OF MG&A.
7. ANY CONTRACTOR(S) USING THESE DRAWINGS SHALL OBTAIN AND THEREAFTER KEEP IN FORCE THROUGH THE DURATION OF THAT USE A CUSTOMARY AND APPROPRIATE INSURANCE COVERAGE, WHICH SHALL INCLUDE WORKERS COMPENSATION AND EMPLOYERS LIABILITY, COMMERCIAL GENERAL LIABILITY, COMMERCIAL AUTOMOBILE LIABILITY, AND UMBRELLA LIABILITY. CERTIFICATION OF INSURANCE BY THE INSURER(S) ISSUING THE POLICIES SHALL BE FILED WITH MG&A AND THE OWNER PRIOR TO COMMENCEMENT OF WORK DESCRIBED ON THESE DRAWINGS.
8. ANY CONTRACTOR(S) USING THESE DRAWINGS BY SAID USE, SHALL BE SUBJECT TO THE INDEMNIFICATION PROVISIONS OF THE "LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC" SECTION OF THE "DOT SPECIFICATIONS", WHERE, THE OWNER, MG&A SHALL BE SUBSTITUTED FOR THE WORD "DEPARTMENT" IN THESE PROVISIONS.
9. EQUALS SHALL BE DETERMINED BY MG&A AND OWNER ONLY AND MAY REQUIRE THE APPROVAL OF VARIOUS AGENCIES PERMITTING THE WORK.
10. MG&A, THE OWNER, AND GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK ARE TO BE NOTIFIED PRIOR TO THE CONSTRUCTION OF ANY IMPROVEMENTS NOT DESCRIBED ON THESE DRAWINGS OR CONSTRUCTING IMPROVEMENTS DIFFERENTLY THAN AS DESCRIBED ON THESE DRAWINGS (FIELD CHANGES). GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THIS WORK INCLUDE: VILLAGE OF ROMEOWILLE AND STATE OF ILLINOIS.
11. ALL PROPOSED ELEVATIONS SHOWN ON THE PLANS ARE FINISHED SURFACE ELEVATIONS UNLESS OTHERWISE SPECIFIED.
12. PERMITS SHALL BE OBTAINED FROM ALL GOVERNMENTAL AGENCIES HAVING JURISDICTION PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITY. MG&A HAS NOT OBTAINED PERMITS FOR THE WORK. THE OWNER OR CONTRACTOR SHALL OBTAIN ALL PERMITS.
13. MG&A, THE OWNER, AND GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK ARE TO BE NOTIFIED BY THE CONTRACTOR A MINIMUM OF 2 WORKING DAYS PRIOR TO COVERING ANY EXPOSED SUBGRADE, PLACING ANY FILL, BACKFILLING SANITARY, WATER, OR STORM LINES, PLACING BASE COURSE STONE, PLACING CONCRETE, OR PLACING ASPHALT.
14. THE DEVELOPER/CONTRACTOR SHALL SUBMIT ALL TESTING RESULTS (DENSITY, CHLORINATION, VACUUM, PRESSURE, ETC) TO THE VILLAGE OF ROMEOWILLE PUBLIC WORKS DEPARTMENT WITHIN 48 HOURS OF ANY ONSITE TESTING.

EXISTING FIELD TILES, UTILITIES AND CONFLICTS NOTES
1. ANY FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE REPAIRED AND RETURNED TO ITS ORIGINAL INTEGRITY, ROUTE, AND FUNCTION, AND SHALL NOT BE CONNECTED TO PROPOSED STORM SEWER SYSTEM(S), EXCEPT AS SPECIFIED OTHERWISE ON THE PLANS.
2. THE CONTRACTOR SHALL CALL JULIE 1-800-892-0123 PRIOR TO ANY EXCAVATION TO ASSURE ALL UTILITIES ARE LOCATED PROPERLY. DAMAGE TO UTILITIES SHALL BE PROMPTLY REPORTED TO THE UTILITY OWNER AND REPAIRED AT THE CONTRACTORS EXPENSE.
3. EXISTING STORM SEWERS, SANITARY SEWERS, WATER MAINS, AND OTHER UTILITIES MAY EXIST BUT MAY NOT BE VISIBLE OR ACCESSIBLE FROM THE SURFACE. THESE UTILITIES MAY NOT APPEAR ON THE FINAL PLANS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL CONTACT MUNICIPAL, COUNTY, AND STATE GOVERNMENTAL AGENCIES THAT MAY REASONABLY BE EXPECTED TO HAVE UTILITIES ON OR NEAR AREAS TO BE EXCAVATED IN ORDER TO HAVE THE UTILITIES LOCATED PROPERLY.
5. THE LOCATION OF ALL UNDERGROUND UTILITY IS OFTEN NOT KNOWN. THE ACTUAL DEPTH AND ALIGNMENT OF UTILITIES HAVE NOT BEEN MEASURED BY MG&A. THE LOCATION OF ALL UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR AT HIS OWN EXPENSE PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING MG&A AND THE UTILITY OWNER TO RESOLVE ANY UTILITY OR OTHER CONFLICTS NOT INDICATED WITHIN THE PLANS PRIOR TO INSTITUTING ANY CHANGES.
7. EXPENSE IN CONNECTING PROPOSED UTILITIES TO EXISTING UTILITIES SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT, UNLESS OTHERWISE INDICATED.

PAVEMENT, CURB & SIDEWALK NOTES
1. FRENCH BACKFILL SHALL BE USED IN ALL TRENCHES UNDER AND WITHIN 2 FEET OF PAVED OR GRAVEL AREAS AND IN ACCORDANCE WITH THE APPLICABLE ARTICLES OF THE IDOT SPECIFICATIONS AND ISPE SPECIFICATIONS AND VILLAGE REQUIREMENTS.
2. DETECTABLE WARNING PLATES TO BE EAST JORDAN INSERTS, HEAVY DUTY LOAD RATING, BRICK RED POWDER COATING KALSI-8.
3. VILLAGE OF ROMEOWILLE PUBLIC WORKS DOES NOT ALLOW CUTTING THE HEAD OF THE CURB OFF TO CREATE DEPRESSIONS CURBS.
4. IF THE CURB MUST BE REMOVED, SECOND SAWCUT AFTER NEW CURB IS INSTALLED IS REQUIRED 36" INTO PAVEMENT - REMOVE AND REPLACE 36" SWATH IN FRONT OF CURB (36" IS FOR PROPER COMPACTION FOOT).
5. ALL EXPOSED CURB CORNERS MUST BE ROUNDED WITH MIN. 1" RADIUS.
6. VILLAGE OF ROMEOWILLE GRADING OF PAVED AREAS: DESIRABLE = 0.5% / MIN = 0.4%.

EARTHWORK
1. THE EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS SHALL BE CONSIDERED AGREED TO BY THE CONTRACTOR(S). THE CONTRACTOR(S) MAY, AT THEIR OWN COST, COLLECT ADDITIONAL TOPOGRAPHIC INFORMATION PRIOR TO COMMENCING WITH WORK DESCRIBED ON THESE PLANS. ANY DISCREPANCIES BETWEEN TOPOGRAPHIC DATA COLLECTED BY THE CONTRACTOR(S) AND THE EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS SHALL BE REPORTED TO MG&A AND THE OWNER PRIOR TO COMMENCEMENT OF WORK.
2. WHENEVER DURING CONSTRUCTION OPERATIONS ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF OUTFALLS, DRAINAGE STRUCTURES, OR DITCHES SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THIS LOOSE MATERIAL SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
3. SURPLUS EXCAVATED SOIL MATERIALS SHALL BE TRANSPORTED TO LOCATIONS ON THE PROPERTY DESIGNATED BY THE OWNER, OR AS IDENTIFIED OTHERWISE IN PROJECT SPECIFICATIONS, DOCUMENTS, OR SPECIAL PROVISIONS.
4. THE CONTRACTOR SHALL PROVIDE ALL EARTH MATERIAL REQUIRED TO ACHIEVE THE WORK DESCRIBED ON THESE FINAL PLANS AND SPECIFICATIONS. THIS INCLUDES PROVIDING AND HAULING SUITABLE FILL TO THE SITE AS MAY BE NECESSARY.
5. ALL FILLS SHALL BE COMPACTED WITH A MAXIMUM THICKNESS OF 6 INCHES OR AS OTHERWISE SPECIFIED BY THE OWNER OR OWNERS REPRESENTATIVE.
6. PRIOR TO COMMENCING ANY FILL OPERATIONS IN STRUCTURAL BUILDING, PAVEMENT, GRAVEL, OR GRAVEL AREAS, ALL TOPSOIL IS TO BE REMOVED.
7. UPON STRIPPING OF TOPSOIL FROM STRUCTURAL, PAVEMENT, GRAVEL, AND/OR UTILITY AREAS AND PRIOR TO PLACEMENT OF FILL OF ANY TYPE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND/OR THE OWNER.
8. IN-SITU SOILS AND EARTH FILL SHALL BE EVALUATED USING A FULLY LOADED EXCAVATION HAULING TRUCK (PROOF ROLLED) PRIOR TO COMMENCEMENT OF FURTHER WORK UNLESS OTHERWISE SPECIFIED BY THE OWNERS REPRESENTATIVE.
9. ROMEOWILLE REQUIREMENT: THE DEVELOPER IS REQUIRED TO HAVE A GEOTECHNICAL ENGINEER ON-SITE TO MONITOR EARTHWORK AND THE GRADING ACTIVITY, IN ORDER TO IDENTIFY UNSUITABLE SOILS FOR REMOVAL FROM THE SITE. A LETTER COMMITTING TO THIS REQUIREMENT MUST BE PROVIDED BY THE DEVELOPER. IN ADDITION, ONLY REPORTS AND COPIES OF ALL GEOTECHNICAL TESTING TESTING AND FREQUENCY IN ACCORDANCE WITH DOT STATE SPECIFICATIONS MUST BE SUBMITTED TO THE VILLAGE OF ROMEOWILLE ONCE THE ROADWAY ARE COMPLETED.
10. THE CONTRACTOR SHALL CONTACT THE VILLAGE OF ROMEOWILLE TO DETERMINE IF ANY SOIL STUDIES HAVE BEEN COMPLETED OR ANY RECOMMENDATIONS HAVE BEEN REPORTED REGARDING EARTHWORK.
11. THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO COMMENCING CONSTRUCTION TO DETERMINE IF ANY PARTICULAR TESTING OF SOIL SURFACES OR FILL SOILS IS REQUIRED.
12. FINAL TOPSOIL THICKNESS SHALL BE A MINIMUM OF 4" UNLESS OTHERWISE SPECIFIED BY THE OWNERS REPRESENTATIVE.
13. UNLESS OTHERWISE AGREED TO BY THE OWNER AND CONTRACTOR, EARTHWORK INCLUDES ALL CLEARING, GRUBBING, TREE REMOVAL, EXCAVATION, FILL, OVERHAUL, FINISHED GRADING, AND PLACEMENT OF TOPSOIL TO ACHIEVE THE WORK DESCRIBED IN THESE FINAL PLANS AND SPECIFICATIONS.
14. VILLAGE OF ROMEOWILLE GRADING OF GRASSSED AREAS: DESIRABLE = 2% / MIN = 1.5%.

SANITARY SEWER NOTES
1. ALL SANITARY SEWER GRAVITY PIPE AND FITTINGS WITH LESS THAN 16 FT COVER SHALL BE POLY(VINYL CHLORIDE) (PVC) SDR 26 AND SHALL BE IN ACCORDANCE WITH ASTM D-3034 FOR PIPES 18" AND SMALLER. WALL THICKNESS SHALL BE T-1 (HEAVY WALL) MEETING THE REQUIREMENTS OF ASTM F-497. JOINT MATERIAL TO BE EAST JORDAN INSERTS, HEAVY DUTY LOAD RATING, BRICK RED POWDER COATING KALSI-8.
2. CLASS THICKNESS DESIGNED PER ANSI A21.51 (AWWA C150), CEMENT LINED WITH BITUMINOUS COATING PER ANSI A21.4 (AWWA C104), WITH MECHANICAL OR RUBBER RING (GUP SEAL OR PUSH ON) JOINTS PER ANSI A21.11 (AWWA C111 AND C200).
3. SANITARY SEWER SHALL BE CONSTRUCTED ON A MINIMUM BEDDING OF 4" AND THE PIPE BACKFILLED WITH A MINIMUM 12" OF BEDDING MATERIAL COVERING THE PIPE. BEDDING MATERIAL SHALL BE CLASS 3 (CA-7) IN COMPLIANCE WITH ASTM D-2021.
4. ALL SANITARY MANHOLES SHALL BE TYPE A, PRECAST CONCRETE 48" DIAMETER WITH EAST JORDAN 102223 EMBOSSED LID. LID SHALL BE EMBOSSED WITH "SANITARY" AND VILLAGE OF ROMEOWILLE. ALL JOINTS NEED TO BE EXTERNALLY WRAPPED WITH MACWAPR OR EQUAL. RUBBER GASKETED BOOTHS ARE REQUIRED FOR THE MAN AT THE MANHOLE WALL.
5. ALL SANITARY MANHOLE CASTINGS, RINGS AND MANHOLE SECTION SHALL BE SET IN BUTYL ROPE OR APPROVED EQUAL. EACH MANHOLE CONE AND BARREL SECTION JOINT SHALL ALSO BE EXTERNALLY SEALED WITH A 6" WIDE SEALING BAND OF RUBBER AND M-31TC. THE BAND SHALL HAVE AN OUTER LAYER OF RUBBER OR POLYETHYLENE WITH AN UNDER LAYER OF RUBBERIZED MASTIC MEETING THE REQUIREMENTS OF ASTM C-877-02 (STANDARD SPECIFICATION FOR EXTERNAL SEALING BANDS FOR CONCRETE PIPE, MANHOLES, AND PRECAST BOX SECTIONS). PIPE CONNECTION TO NEW AND EXISTING MANHOLES THROUGH OPENINGS (CAST OR CORE-DRILLED) SHALL BE PROVIDED WITH A FLEXIBLE RUBBER WATER TIGHT CONNECTOR CONFORMING TO ASTM C-1275-11 (STANDARD SPECIFICATIONS FOR RESILIENT CONNECTIONS BETWEEN REINFORCED CONCRETE MANHOLE STRUCTURES AND PIPES).
6. PLEASE USE AN EXTERNAL FLEXIBLE SEAL ON SANITARY MANHOLES ONE VENDOR OF THIS SEAL IS ADAPTOR INC.
7. ALL MANHOLES LOCATED IN AREAS SUBJECT TO FLOODING MUST HAVE WATERPROOF, BOLT DOWN RINGS AND LIDS.
8. MINIMUM COVER ON SEWER PIPE SHALL BE 5 FT. ANY SEWER WITH LESS THAN 5 FT OF COVER SHALL HAVE INSULATION WRAPPED AROUND PIPE.
9. WHEN UTILITY STRUCTURE ADJUSTMENT IS NECESSARY, A MINIMUM OF TWO ADJUSTING RINGS (MAX 1" ADJUSTING HEIGHT) AND MAXIMUM OF THREE RINGS (MAX 1" ADJUSTING HEIGHT), NO 1" OR 2" CONCRETE RINGS ARE ALLOWED. UNDER PAVED AREAS, TOP RING SHOULD BE RUBBER. USE ONE (1) EJVW INFRA-RISER RUBBER COMPOSITE.
10. MAXIMUM ALLOWABLE INFILTRATION FOR GRAVITY SEWER SHALL BE 36 GAL PER INCH DIA PER MILE PER DAY.
11. ALL SANITARY SEWER MAINS SHALL BE AS TESTED CONFORMING TO ISPE SPECIFICATIONS SECTION 3-1-133.
12. ALL SANITARY SEWER SHALL BE TESTED FOR DEFLECTION IN ACCORDANCE WITH SECTIONS 3-1-130 OF THE ISPE SPECIFICATIONS.
13. ALL SANITARY MANHOLES SHALL BE LEAKAGE TESTED IN ACCORDANCE WITH EITHER ASTM C889 OR C1275.
14. FOR ADDITIONAL REQUIREMENTS SEE VILLAGE OF ROMEOWILLE'S FINAL ACCEPTANCE AND TESTING OF SANITARY SEWER REQUIREMENTS, INCLUDED ON DETAILS SHEET.
15. THE DEVELOPER/CONTRACTOR SHALL SUBMIT ALL TESTING RESULTS TO THE VILLAGE OF ROMEOWILLE PUBLIC WORKS DEPARTMENT WITHIN 48 HOURS OF ANY ONSITE TESTING.

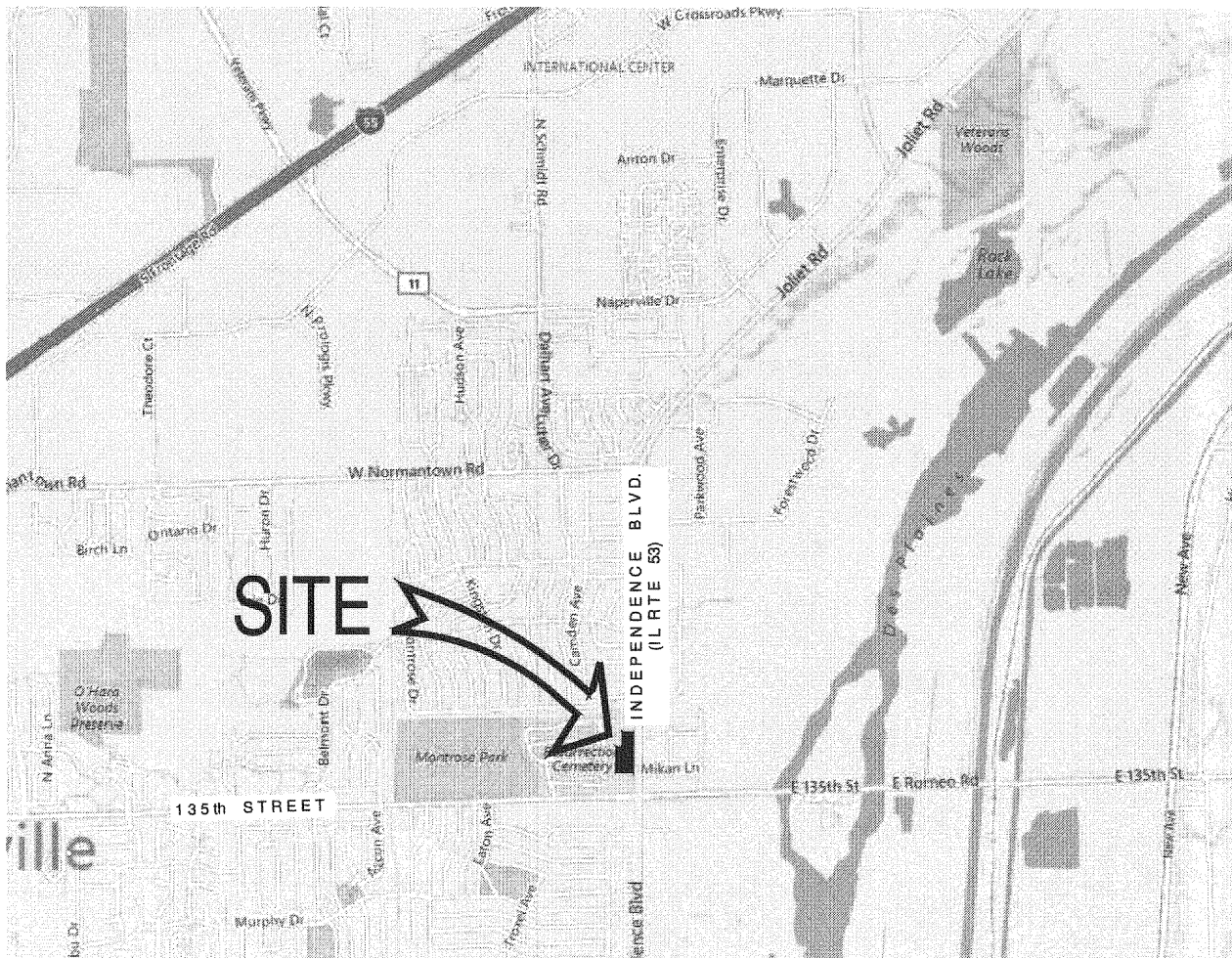
WATER MAIN AND/OR SERVICE NOTES
1. WATER MAIN PIPE: ALL WATER MAIN PIPE MATERIAL, SIZE AND TYPE SHALL BE INSTALLED AS INDICATED ON THE UTILITY PLAN. UNLESS OTHERWISE NOTED ON THE PLANS, ALL WATER MAIN PIPE 3" DIAMETER AND LARGER SHALL BE CONSTRUCTED OF BITUMINOUS-COATED CEMENT-LINED DUCTILE IRON PIPE, CLASS 52, CONFORMING TO ANSI A21.51 (AWWA C151), CEMENT MORTAR LINING SHALL CONFORM TO ANSI A21.4 (AWWA C104). THE JOINTS SHALL BE PUSH-ON COMPRESSION GASKET JOINTS CONFORMING TO ANSI A21.11 (AWWA C111). ANY CHANGES TO THE PIPE MATERIAL, SIZE AND TYPE MUST BE APPROVED BY THE OWNER, ENGINEER AND VILLAGE OF ROMEOWILLE PRIOR TO ORDERING MATERIALS AND INSTALLING THE PIPE.
2. WHENEVER A SEWER CROSSES UNDER A WATER MAIN, THE VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATER MAIN SHALL BE 18". FURTHERMORE A MINIMUM DISTANCE OF 10 FEET BETWEEN STORM SEWERS AND WATER MAINS SHALL BE MAINTAINED. IF THE VERTICAL DISTANCE BETWEEN THE WATER MAIN AND SEWER IS LESS THAN 10 FEET, THE SEWER SHALL BE INSTALLED IN A SEPARATE TRENCH 18" VERTICAL SEPARATION. IF THE HORIZONTAL DISTANCE DESCRIBED ABOVE CANNOT BE MAINTAINED, THEN FOR A MINIMUM DISTANCE OF 10' ON EACH SIDE OF THE CONFLICT, THE SEWER SHALL BE CONSTRUCTED OF WATER MAIN QUALITY PIPE ACCORDANCE WITH SECTION 4-2.1 OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS," LATEST EDITION.
3. A 10' FOOT MINIMUM SEPARATION SHALL BE MAINTAINED BETWEEN PARALLEL STORM SEWER AND WATER MAIN LINES, AND BETWEEN PARALLEL SANITARY SEWER AND WATER MAIN LINES, IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION & SECTION 4-2.1.
4. ROMEOWILLE: ALL WATER MAIN MUST HAVE A MINIMUM COVER DEPTH OF 6'-0". ALL WATER MAIN MUST BE WRAPPED IN POLYETHYLENE USING METHOD B. ALL JOINTS MUST BE REINFORCED WITH MEGALUGS (EBAE IRON ONLY).
5. ROMEOWILLE: HYDRANT SHALL BE EAST JORDAN WATER MASTER BR650, WITH 6" PLANED SHOWN. PRESIDENT WELMECHANICAL JOINT (VALVE) AND MUST INCLUDE STORZ PUMPER CONNECTION ALONG WITH TWO 2-1/2" HOSE CONNECTIONS. VALVES MUST BE AMERICAN FLOW, EAST JORDAN (CLOWMASTER), OR CLOW C-515. ALL VALVES MUST BE RESILIENT-SEALED GATE VALVES.
6. ALL VALVES AND HYDRANTS SHALL BE SUBMITTED TO THE VILLAGE OF ROMEOWILLE WATER DEPARTMENT FOR WRITTEN APPROVAL PRIOR TO ORDERING.
7. BE CONSCIOUS OF DAMAGING THE PLANT ON HYDRANTS DURING INSTALLATION. THE VILLAGE OF ROMEOWILLE HAS REPORTED THAT THE PLANT ON THE HYDRANTS HAS BEEN DAMAGED DURING BACKFILLING. IF REQUESTED BY THE VILLAGE OF ROMEOWILLE WATER SUPERINTENDENT, ANY HYDRANTS EXHIBITING EXCESSIVE ROCK DAMAGE WILL BE SAND BLASTED AND REPAIRED BY AN APPROVED CONTRACTOR PRIOR TO ACCEPTANCE.
8. A MINIMUM OF 48 HOURS PRIOR TO ANY WATER USAGES (IE FLUSHES, FILLS, ETC), THE CONTRACTOR MUST CALL THE VILLAGE OF ROMEOWILLE WATER DEPARTMENT AT 815-886-1870 TO GET APPROVAL OF SAID USAGE. ANY UNAUTHORIZED USAGES WILL RESULT IN PENALTIES.
9. WATER SERVICE WITH SIZES UNDER 3" DIAMETER SHALL BE TYPE C COPPER AND BE CONTINUOUS FROM CORPORATION STOP TO THE CURB STOP AND CONTINUOUS (ONE PIECE) FROM THE CURB STOP TO THE METER (INSIDE THE BUILDING). NO UNIONS ARE PERMITTED. ANY WATER SERVICE 3" DIAMETER OR LARGER SHALL ADHERE TO THE REQUIREMENTS OF WATER MAIN PIPE.
10. WATER SERVICE MUST BE 60 INCHES DEEP AND CROSS A MINIMUM OF 18 INCHES BELOW ANY STORM OR SANITARY SEWER.
11. WATER SERVICE SHALL HAVE NO FLANGED FITTINGS FOR COPPER LINES. ONLY COMPRESSION FITTINGS (1) FORD 8 STYLE GRIP JOINT (PACK JOINT NOT ACCEPTED) (2) MC DONALD "T" COMPRESSION JOINT (MAC-PACK NOT ACCEPTED).
12. FOR VILLAGE SPECIAL NOTES, SEE VILLAGE CHLORINATION REQUIREMENTS INCLUDED ON DETAILS SHEET.
13. THE NON-VILLAGE (PRIVATE) RESPONSIBILITY FOR MAINTENANCE AND REPAIR STARTS AT THE TAP ON THE MAIN, WHICH INCLUDES THE SADDLE AND CORPORATION STOP.
14. WATER TAP, CORPORATION STOP AND CURB STOP IS TO BE INCLUDED UNDER THESE PLANS. ONE INCH (1") TAP MADE ON DUCTILE IRON PIPE SHALL BE DIRECT AND SHALL NOT REQUIRE SADDLES. ANY TAP LARGER THAN 1" SHALL UTILIZE A STAINLESS STEEL SERVICE SADDLE EQUAL TO OR ABOVE THE SERVICE SADDLE (EBAE IRON) OR EQUIVALENT (FORD 8) HYDRANTS. HYDRANTS SHALL BE REMOVED BY SHOVELING OR STREET CLEANING (NOT FLUSHING) BEFORE THE END OF EACH WORKDAY AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL.
15. IF DEWATERING DEVICES ARE USED, DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. ALL PUMPED DISCHARGES SHALL BE ROUTED THROUGH APPROPRIATELY DESIGNED SEDIMENT TRAPS OR BASINS.

STORM SEWER NOTES
1. ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP), CLASS IV, CONFORMING TO ASTM C76 WITH "T" RING JOINTS CONFORMING TO ASTM C361, ASTM C443, AND ASTM C1619.
2. VILLAGE REQUIRES SUBMISSION OF RECORDED VIDEO INSTRUCTIONS OF ALL PUBLIC STORM SEWER.
3. ALL STORM SEWER MANHOLES WITH CLOSED LID STRUCTURES, FRAME AND COVER SHALL BE EAST JORDAN 102223 EMBOSSED WITH "STORM" AND "VILLAGE OF ROMEOWILLE".

STORM WATER, SEDIMENT & EROSION CONTROL
1. ACCORDING TO THE LIMITS OF IMPROVEMENTS DESCRIBED ON THIS PLAN SET, THE TOTAL DISTURBED AREA IS MORE THAN ONE ACRE AND WILL REQUIRE AN NPDES CONSTRUCTION STORMWATER PERMIT. THE OWNER AND CONTRACTOR SHOULD ASSURE BEST MANAGEMENT PRACTICES FOR STORM WATER AND SEDIMENT CONTROL ARE UTILIZED AND MAINTAINED. SPECIAL ATTENTION SHOULD BE PAID TO DISPOSAL OF MATERIALS SUCH AS EXCESS CONCRETE AND CLEANING WHEELS BEFORE LEAVING THE SITE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE REQUIREMENTS OF ALL APPLICABLE SOIL EROSION AND SEDIMENT CONTROL ORDINANCES.
3. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN 7 CALENDAR DAYS FOLLOWING THE END OF ACTIVE DISTURBANCE OR REDISTRIBUTION.
4. STABILIZED CONSTRUCTION FRANKSIES, SLOPE EROSION, DITCH CHECKS, INLET PROTECTION, AND OTHER LIKE CONTROLS SHALL BE INSTALLED IMMEDIATELY PRIOR TO (OR AFTER FOR SOME ACTIVITIES) THE TIME OF RELEVANT CONSTRUCTION ACTIVITIES.
5. ALL TEMPORARY EROSION CONTROL SHALL BE INSPECTED AND MAINTAINED BY THE CONTRACTOR, ON A WEEKLY BASIS.
6. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF WITHIN 30 DAYS AFTER THE FINAL SITE STABILIZATION IS ACHIEVED WITH PERMANENT SOIL STABILIZATION MEASURES.
7. ALL STORM SEWER STRUCTURES ARE TO BE PROTECTED FROM SEDIMENT WITH APPROVED INLET PROTECTION.
8. ALL ADJACENT STREETS MUST BE KEPT CLEAR OF DEBRIS, INSPECT DAILY AND CLEAN WHEN NECESSARY.
9. ALL ACCESS TO AND FROM THE CONSTRUCTION SITE TO BE RESTRICTED TO THE CONSTRUCTION ENTRANCE.
10. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE EFFECTIVE PERFORMANCE OF THEIR INTENDED FUNCTION.
11. MAJOR AMENDMENTS OF THE SITE DEVELOPMENT OR EROSION AND SEDIMENTATION CONTROL PLANS SHALL BE SUBMITTED TO THE DEPARTMENT OF COMMUNITY DEVELOPMENT TO BE APPROVED IN THE SAME MANNER AS THE ORIGINAL PLANS.
12. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BY SHOVELING OR STREET CLEANING (NOT FLUSHING) BEFORE THE END OF EACH WORKDAY AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL.
13. IF DEWATERING DEVICES ARE USED, DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. ALL PUMPED DISCHARGES SHALL BE ROUTED THROUGH APPROPRIATELY DESIGNED SEDIMENT TRAPS OR BASINS.

RECORD DRAWINGS
1. UPON COMPLETION OF CONSTRUCTION, RECORD DRAWINGS FOR ALL PUBLIC IMPROVEMENTS MUST BE PROVIDED TO THE VILLAGE ON DISKETTE IN AUTOCAD (DWG) FORMAT. CORRECTIONS TO SITE DESIGN, UTILITY PLACEMENT, AND ELEVATIONS MUST BE SHOWN ON THE DIGITAL DRAWINGS BY CROSSING OUT THE ORIGINAL DESIGN INFORMATION AND ADDING THE CHANGES MADE.

SITE LOCATION MAP



LEGEND

EXISTING	PROPOSED	
###	###	ELEVATION POINT
---	---	CONTOUR LINE
---	---	PIPE CULVERT
---	---	STORM MANHOLE
---	---	STORM SEWER W/ PROP TRENCH BACKFILL
---	---	SANITARY MANHOLE
---	---	SANITARY SEWER W/ PROP TRENCH BACKFILL
---	---	SANITARY SEWER SERVICE W/ PROP TRENCH BACKFILL
---	---	WATER MAIN W/ SIZE & PROP TRENCH BACKFILL LOCATIONS
---	---	WATER SERVICE W/ PROP TRENCH BACKFILL LOCATIONS
---	---	FIRE HYDRANT
---	---	CLEAN-OUT
---	---	LIGHT POLE
---	---	POWER POLE
---	---	OVERHEAD UTILITIES
---	---	UNDERGROUND UTILITIES
---	---	GAS UTILITY
---	---	ELECTRIC PEDESTAL
---	---	COMED TRANSFORMER OR PEDESTAL
---	---	TRAFFIC SIGNAL HANDHOLE
---	---	TELEPHONE PEDESTAL
---	---	TREE W/ SIZE DIAMETER
---	---	PERIMETER SILT FENCE
---	---	INLET PROTECTION
---	---	ASPHALT
---	---	CONCRETE

BENCHMARK

BENCHMARK (DATUM)

SITE BENCHMARK 1:

SOUTHWEST BOLT OF SECOND FIRE HYDRANT NORTH OF THE INTERSECTION OF ROMEO ROAD & ROUTE 53 (FRONT OF SITE) ELEV-611.71 (NAVD88)

SITE BENCHMARK 2:

NORTH BOLT OF THE SECOND FIRE HYDRANT WEST OF THE INTERSECTION OF ROMEO ROAD & ROUTE 53 (NORTH SIDE OF ROMEO ROAD) ELEV-612.97 (NAVD88)

REFERENCE BENCHMARK:

NGS MONUMENT M 140 (BENCHMARK DISK NEAR N STATE ST & HIGH RD IN LOCKPORT) ELEV-653.52 (NAVD88)

INDEX OF SHEETS

Sheet Number	Sheet Title
C1	COVER SHEET
C2	EXISTING CONDITIONS & DEMOLITION PLAN
C3	SITE GEOMETRIC & UTILITY PLAN
C4	GRADING PLAN
C5	EROSION CONTROL PLAN
C6 - C7	CONSTRUCTION DETAILS

UTILITY COMPANIES

AT&T	630-573-5450
COMED	630-576-7094
GS4 TECHNOLOGY (RAYMOND GREGORY)	630-343-2826
NICOR GAS	630-388-2362
VILLAGE OF ROMEOWILLE	
WATER (ERIK BJORK)	815-886-1870
WASTEWATER (ERIK BJORK)	815-886-1870
STORM (ERIK BJORK)	815-886-1870
ENGINEERING (JONATHON ZABROCKI, PE)	815-886-1870

DRAINAGE CERTIFICATE

I, Richard F. Vane, HEREBY CERTIFY THAT ADEQUATE STORM WATER STORAGE AND DRAINAGE CAPACITY HAS BEEN PROVIDED FOR THIS DEVELOPMENT, SUCH THAT SURFACE WATER FROM THE DEVELOPMENT WILL NOT BE DIVERTED ONTO AND CAUSE DAMAGE TO ADJACENT PROPERTY FOR STORMS UP TO AND INCLUDING THE ONE HUNDRED (100) YEAR EVENT, AND THAT THE DESIGN PLANS ARE IN COMPLIANCE WITH ALL APPLICABLE STATE, COUNTY, AND VILLAGE ORDINANCES.

DATED THIS 20th DAY OF June, A.D., 2018

Richard F. Vane
ILLINOIS LICENSED PROFESSIONAL ENGINEER



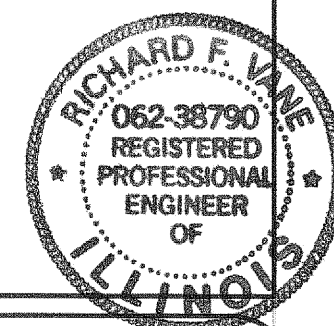
CALL JULIE 1-800-892-0123

WITH THE FOLLOWING:

OR

COUNTY WILL
CITY-TOWNSHIP VILLAGE OF ROMEOWILLE

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



Know what's below.
Call what's below.

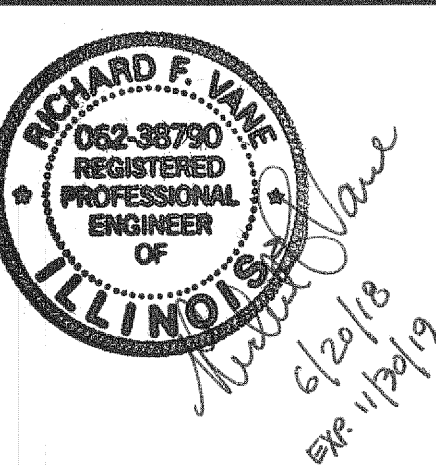
PLAN EDITION	DATE	BY	DESCRIPTION
1	03-25-18	BR	ISSUED FOR REVIEW
2	03-25-18	BR	ISSUED FOR REVIEW
3	04-25-18	BR	VALUE REVIEW
4	06-20-18	BR	VALUE REVIEW

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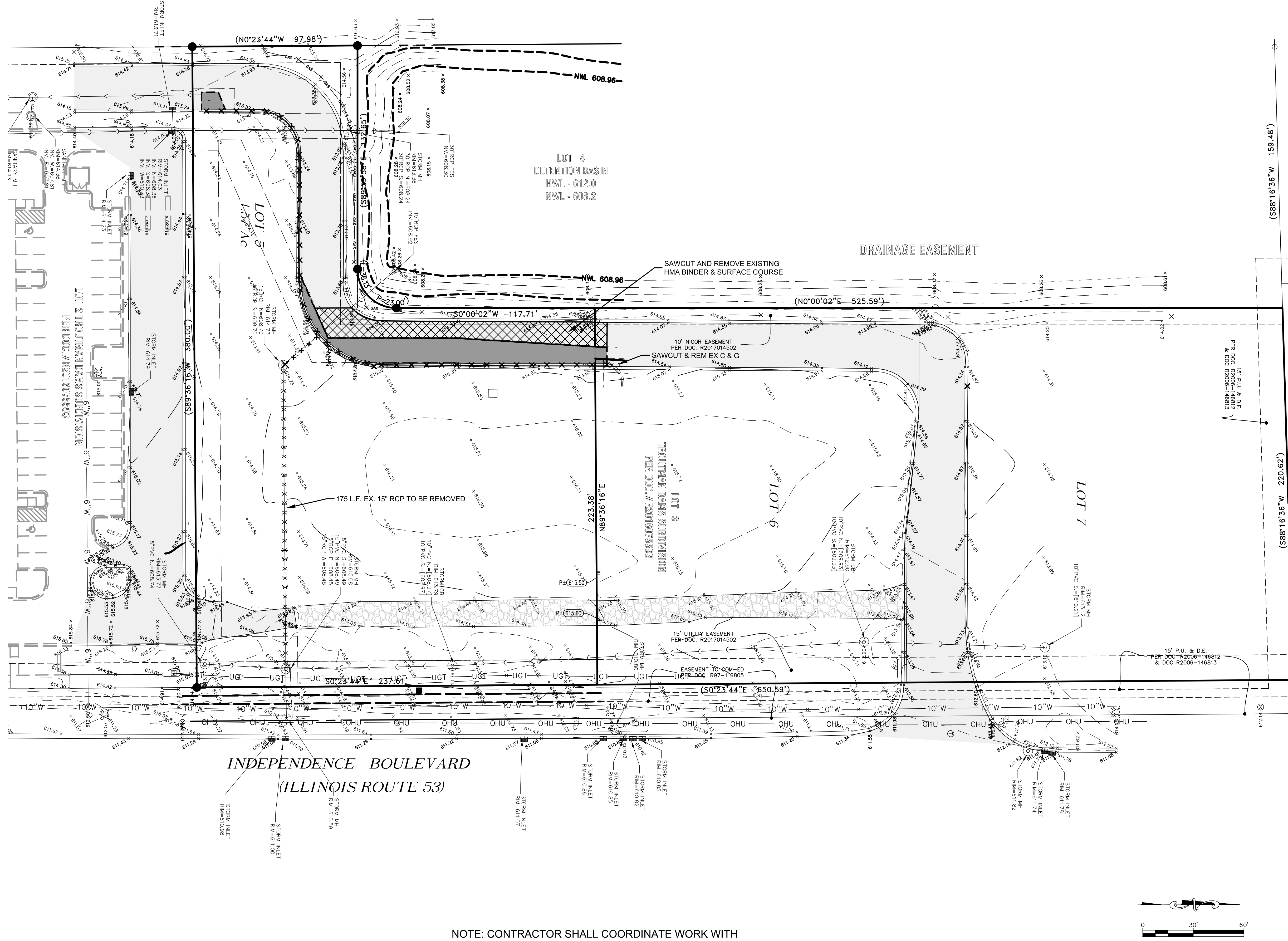
DESIGN: BPH
DRAWING: NIB
CHECKED: BPH
APPROVED: BPH

PROFESSIONAL DESIGN
FIRM #184.005003

CARDINAL LIQUORS
ROMEOWILLE, ILLINOIS

COVER

SHEET NO.
C1 OF C7
JOB NO. 17-547



LAND DESCRIPTION
TO BE KNOWN AS LOT 5 IN TROUTMAN DAMS FIRST RESUBDIVISION,
BEING A SUBDIVISION OF PART OF THE SOUTHWEST QUARTER OF
SECTION 34, TOWNSHIP 37 NORTH, RANGE 10 EAST OF THE THIRD
PRINCIPAL MERIDIAN, IN WILL COUNTY, ILLINOIS.

NOTE: CONTRACTOR SHALL COORDINATE WORK WITH
PROPOSED IMPROVEMENT PLANS PREPARED BY OTHERS.

NOTES:

1. CONTRACTOR TO COORDINATE WITH VILLAGE OF ROMEOVILLE AND
UTILITY COMPANIES ON ALL DISCONNECTION, REMOVALS,
ADJUSTMENTS, AND/OR CONNECTION AND INSTALLATION OF ALL
EXISTING AND PROPOSED UTILITIES.
2. UNDERGROUND UTILITIES SHOWN ARE A REPRESENTATION BASED
ON VISIBLE EVIDENCE AND UTILITY MAPS PROVIDED BY OTHERS.
ACTUAL LOCATIONS MAY DIFFER FROM THE LOCATIONS SHOWN.
3. CONTRACTOR SHALL LOCATE AND VERIFY THE LOCATION AND
DEPTH OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
4. CURB, WALKS, ASPHALT AND SIMILAR HARD SURFACES TO BE
REMOVED SHALL BE FULL DEPTH SAWCUT PRIOR TO REMOVAL.

CARDINAL LIQUORS
ROMEOVILLE, ILLINOIS

EXISTING TOPOGRAPHY AND DEMOLITION PLAN

DESIGN: BPH
DRAWING: MB
CHECKED: BPH
APPROVED: BPH

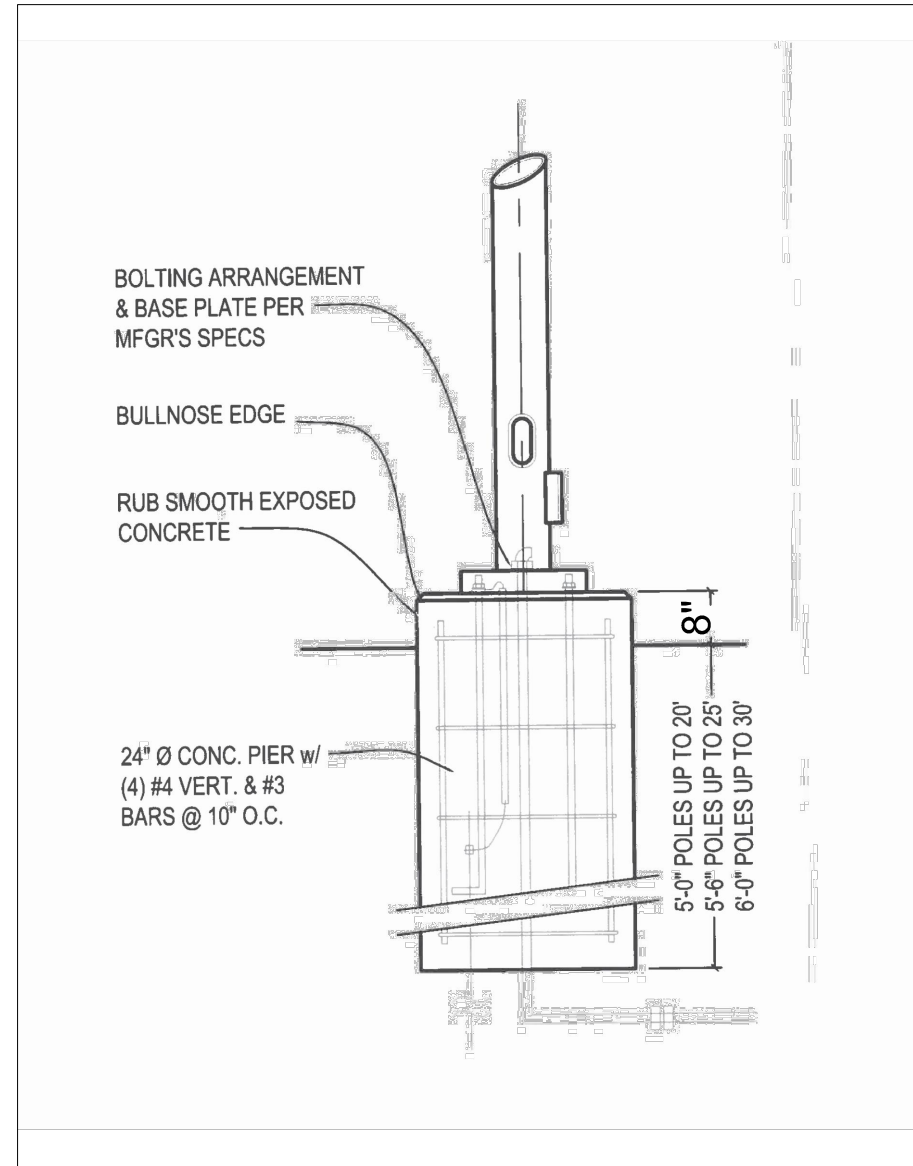
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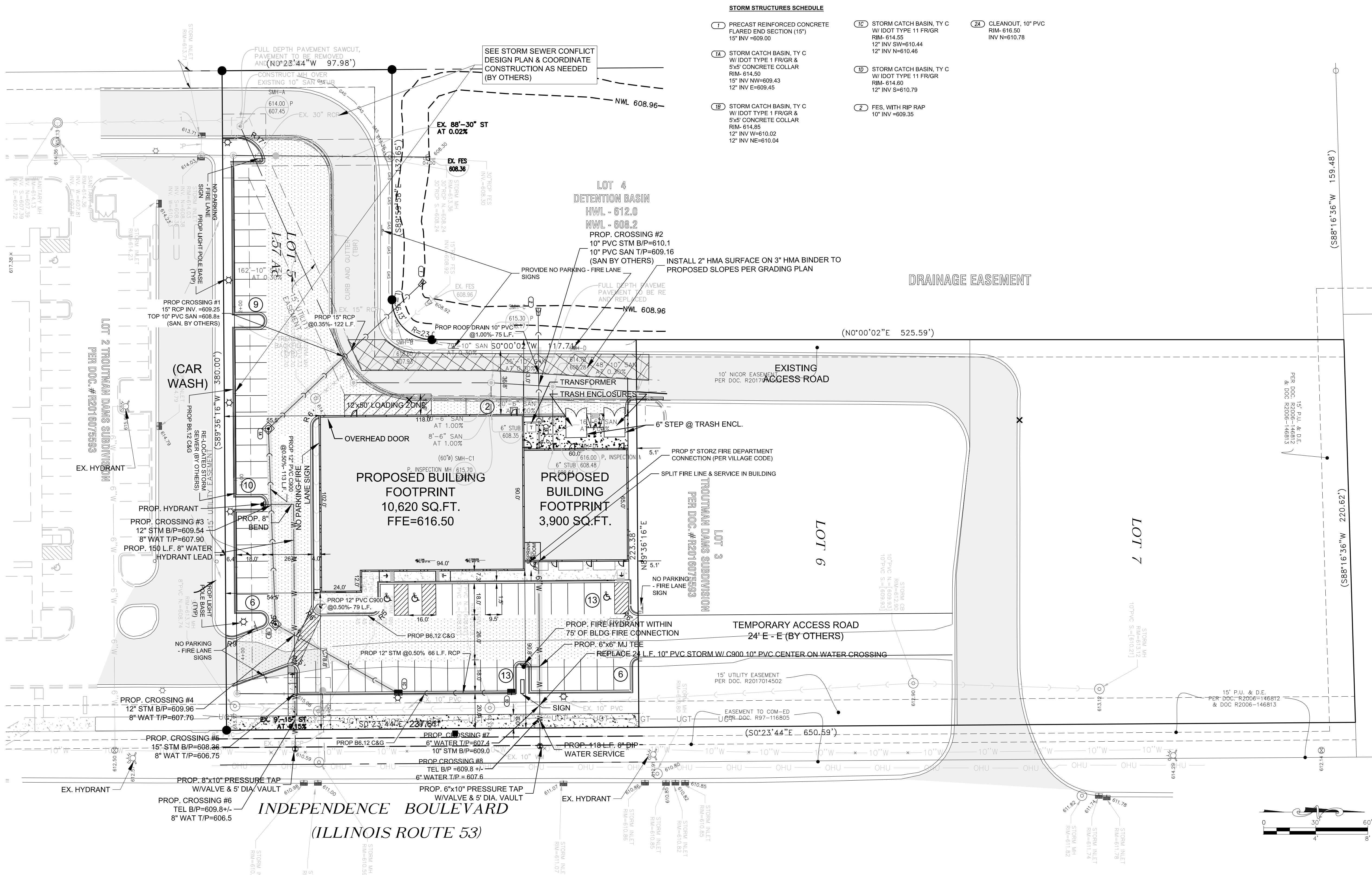
PLAN EDITION	DATE	BY	DESCRIPTION
1	03-05-18	BPH	ISSUED FOR REVIEW
2	03-12-18	BPH	ISSUED FOR PERMIT
3	04-25-18	BPH	VILLAGE REVIEW
4	05-20-18	BPH	VILLAGE REVIEW

SHEET NO.
C2 OF C7

JOB NO. 17-547



LIGHT POLE BASE



STORM STRUCTURES SCHEDULE					
(1)	PRECAST REINFORCED CONCRETE FLARED END SECTION (15") 15" INV =609.00	(1C)	STORM CATCH BASIN, TY C W/ IDOT TYPE 11 FR/GR RIM= 614.55 12" INV SW=610.44 12" INV N=610.46	(2A)	CLEANOUT, 10" PVC RIM= 616.50 INV N=610.78
(1A)	STORM CATCH BASIN, TY C W/ IDOT TYPE 1 FR/GR & 5'x5' CONCRETE COLLAR RIM= 614.50 15" INV NW=609.43 12" INV E=609.45	(1D)	STORM CATCH BASIN, TY C W/ IDOT TYPE 11 FR/GR RIM= 614.50 12" INV S=610.79		
(1B)	STORM CATCH BASIN, TY C W/ IDOT TYPE 1 FR/GR & 5'x5' CONCRETE COLLAR RIM= 614.85 12" INV W=610.02 12" INV NE=610.04	(2)	FES, WITH RIP RAP 10" INV =609.35		

SITE DATA TABLE - LOT 3A		
LOT INFO:		
ZONING	B-3 w/ P.U.D.	
LOT AREA	1.573 AC	
EXISTING IMPERVIOUS (Drive to remain)		
Prop. Heavy Duty Pavement	16,822 SF	
Prop. Standard Duty Pavement	10,220 SF	
Prop Concrete Walk, Trash Enclosure Areas	5,010 SF	
Prop Curbing	1,010 L.F.	
Prop Building	14,520 SF	
PROPOSED IMPERVIOUS AREA		
PROPOSED & EXISTING IMPERVIOUS AREA	1.09 AC (69.3%)	
PROPOSED & EXISTING IMPERVIOUS Not Incl Path	1.33 AC (84.5%)	
PROPOSED & EXISTING IMPERVIOUS Not Incl Path	1.29 AC (82.0%)	
PARKING:		
PROPOSED PARKING SPACES PROVIDED	56	SPACES
PROPOSED HANDICAPPED SPACES REQUIRED	3	SPACES
TOTAL	59	SPACES
BUILDING SETBACKS:		
FRONT (EAST):	REQ'D 60'	PROVIDED 78.8'
SIDE (NORTH):	10'	5'
REAR (WEST):	30'	43.0'

LEGEND	
	- HEAVY DUTY PAVEMENT
	- STANDARD DUTY PAVEMENT
	- TRENCH B/F FOR UTILITIES

TRENCH BACKFILL NOTE: GRANULAR TRENCH BACKFILL IS REQUIRED WHEN THE TRENCH IS WITHIN TWO FEET OF PAVEMENT OR CURB.

NOTE: CONTRACTOR SHALL COORDINATE WORK WITH PROPOSED IMPROVEMENT PLANS PREPARED BY OTHERS.

SITE LIGHTING NOTE: FOR PARKING LOT LIGHTING SEE ARCHITECTURAL & LIGHTING PLANS.

- NOTES:
- DETECTABLE WARNING PLATES SHALL BE EAST JORDAN INSERTS, HEAVY DUTY LOAD RATING, BRICK RED POWDER COATING RAL3016.
 - PROPOSED CURB AND GUTTER SHALL BE DOWELLED INTO EXISTING CURB & GUTTER. THREE (3) DRILLED AND GROUTED NO. 5 REINFORCING BARS OR EXPANSION TIE ANCHORS, 5/8" IN DIAMETER SHALL BE USED TO TIE THE NEW CURB AND GUTTER TO THE EXISTING CURB AND GUTTER ON EACH SIDE.

PLAN EDITION MILESTONES

DATE	BY	DESCRIPTION
3/5/2018	BPH	ISSUED FOR REVIEW
3/12/2018	BPH	ISSUED FOR PERMIT
4/25/2018	RFV	VILLAGE REVIEW
6/20/2018	RFV	VILLAGE REVIEW

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CARDINAL LIQUORS

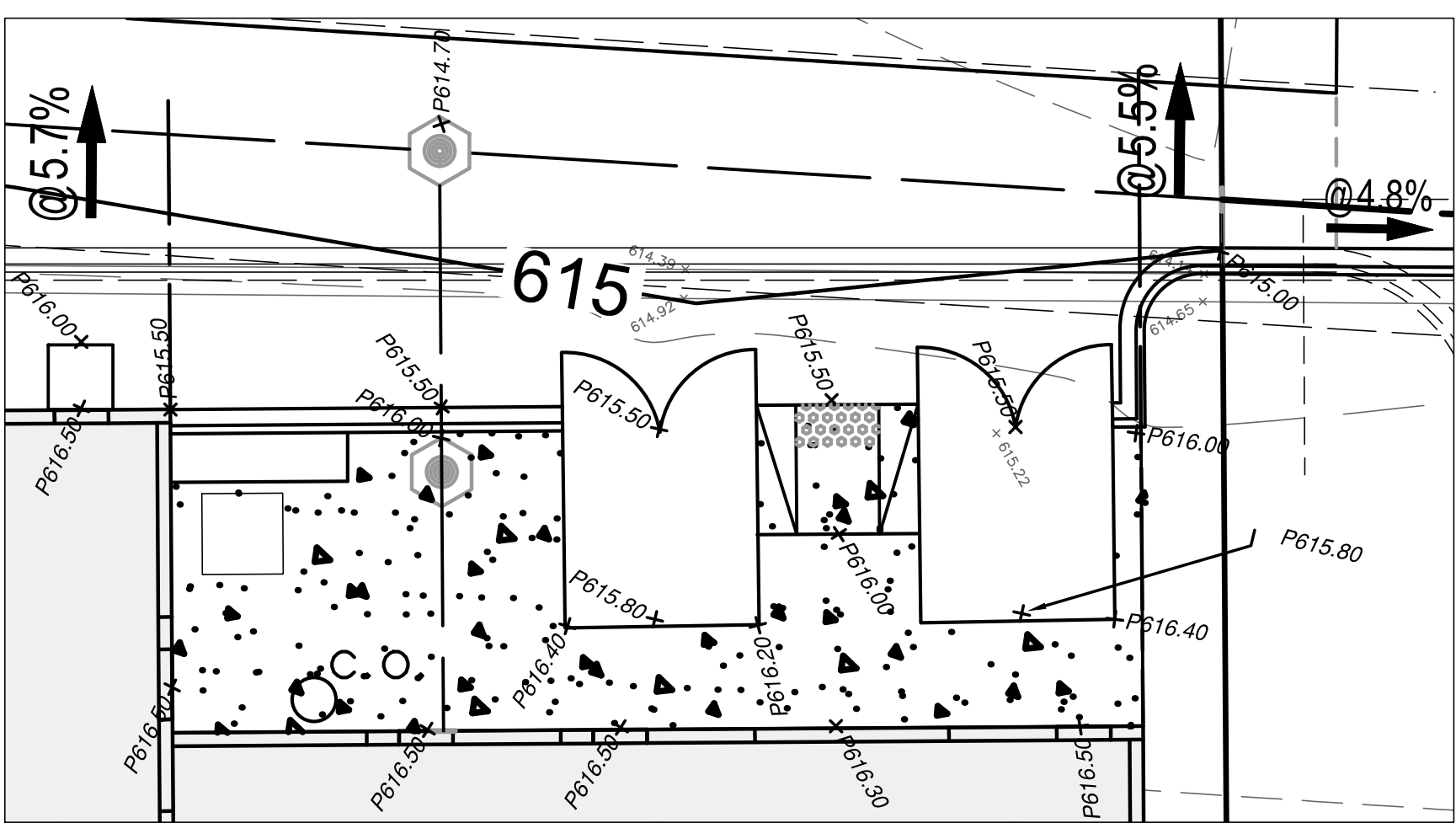
ROMEIOVILLE, ILLINOIS

SITE GEOMETRIC AND UTILITY PLAN

SHEET NO. C3 OF C7

JOB NO. 17-547

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DETAIL
SCALE: 1"=10'

[illegible]

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CARDINAL LIQUORS
ROMEOLVILLE, ILLINOIS

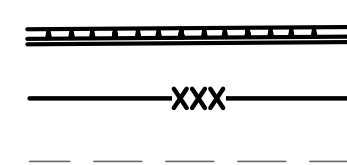
SITE GRADING

SHEET NO. 4 OF C7

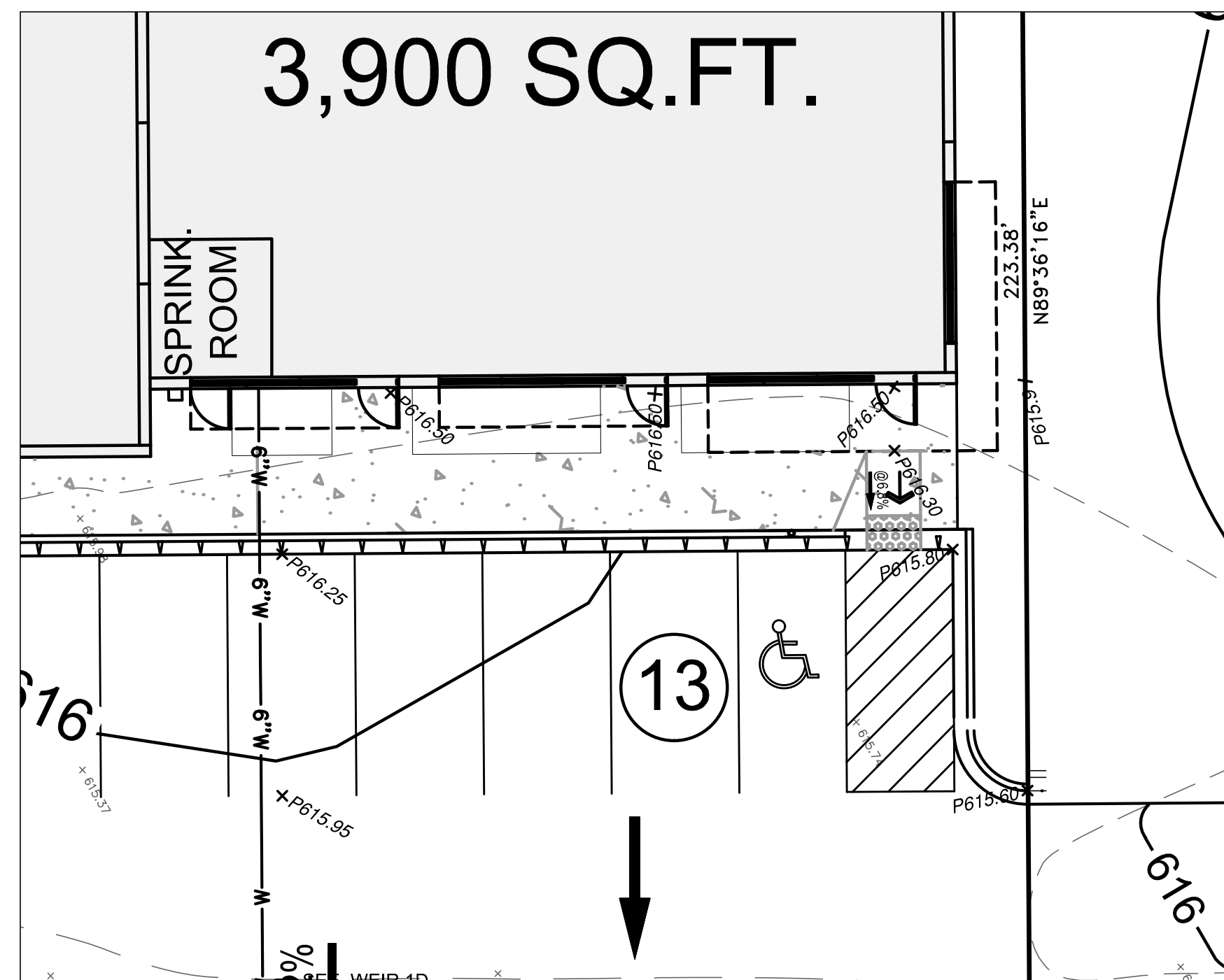
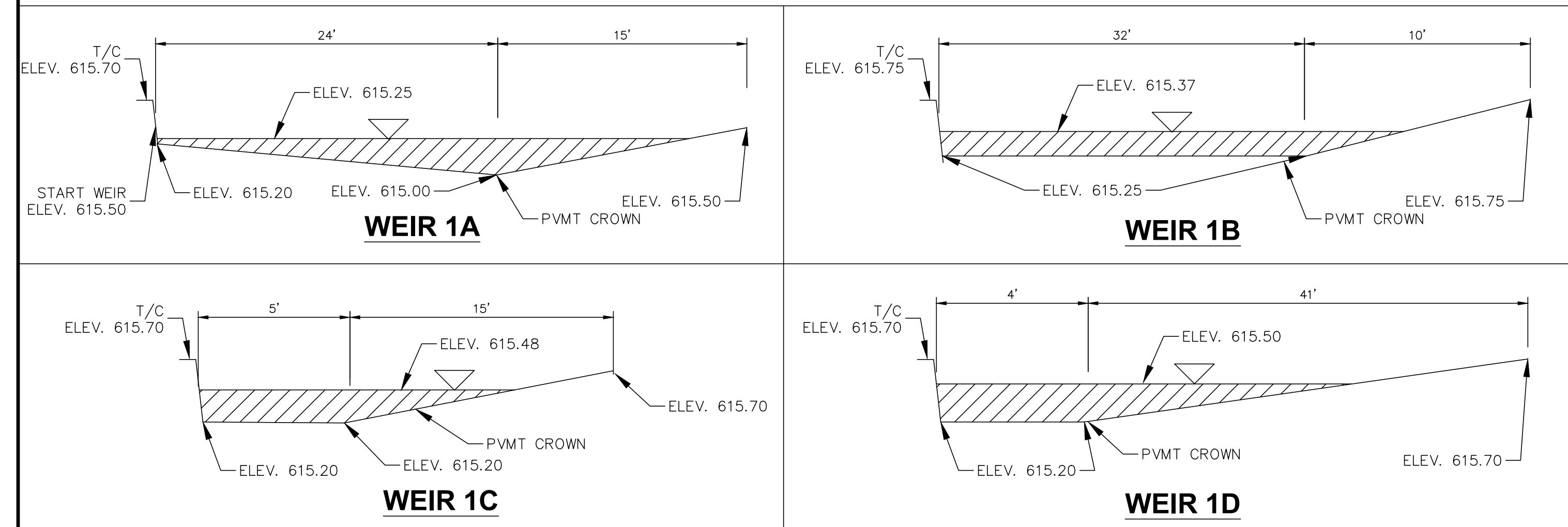
JOB NO. 17-547

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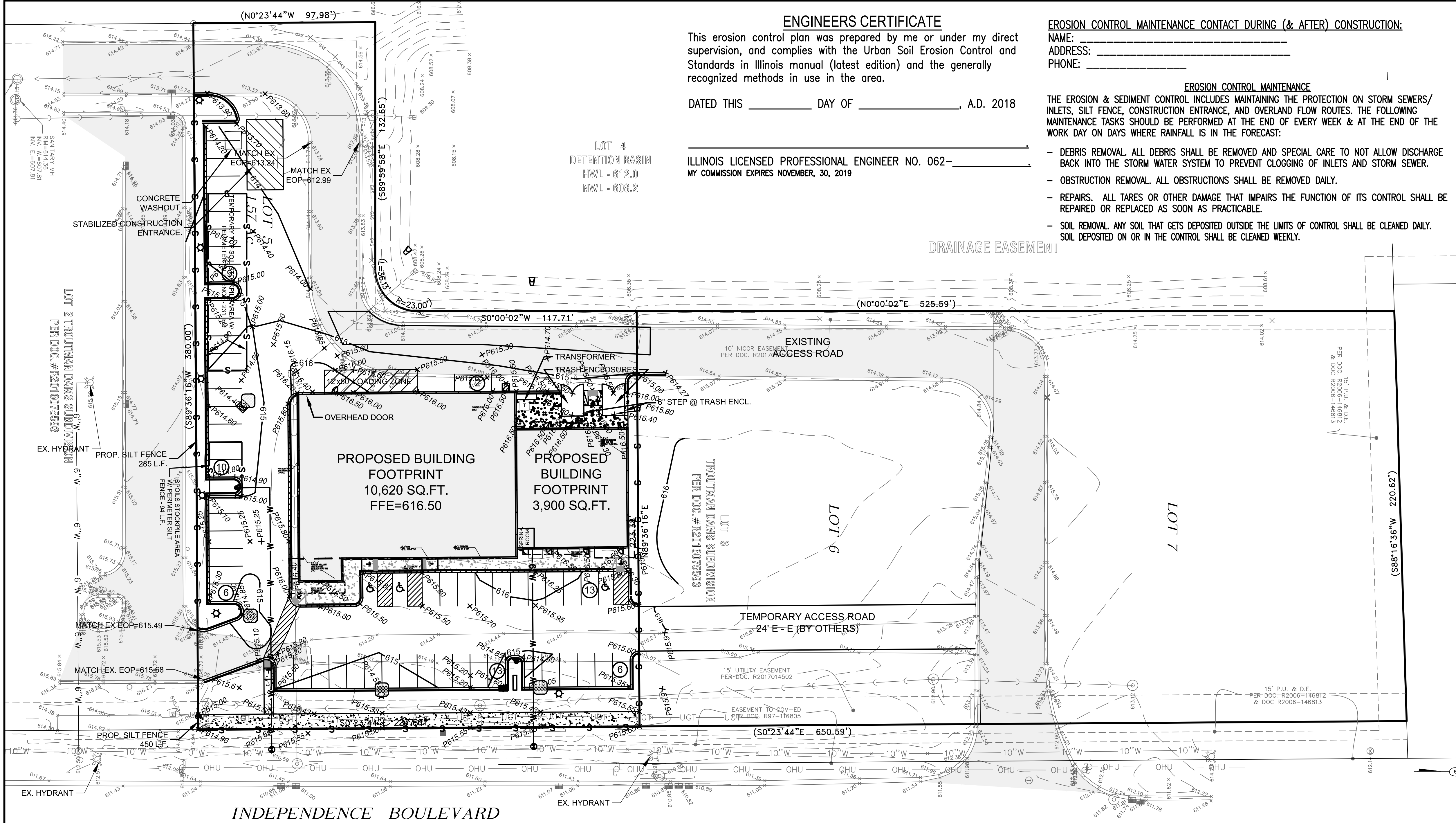
LEGEND



- REVERSE PITCH GUTTER
- PROPOSED FINISH GRADE CONTOUR
- EXISTING CONTOURS



DETAIL
SCALE: 1"=10'



AREA OF DISTURBANCE =1.5 ACRES

NOTE: ANY DISTURBED GRASSED AREAS IN ADJACENT RIGHT-OF-WAY SHALL BE RESTORED TO EXISTING CONDITION OR BETTER W/ MIN. 6" TOPSOIL, FERTILIZED, SEEDED W/ IDOT CLASS 1 SEEDING, AND COVERED W/ A STRAW MATT.

STABILIZE TURF AREAS OF SITE WITH PERMANENT SEED MIX (UNLESS OTHERWISE NOTED)
200 LB/AC KY BLUEGRASS
120 LB/AC PERENNIAL RYEGRASS
80 LB/AC CREEPING RED FESCUE
SEED RATE: 400 LB PER ACRE

FERTILIZE WITH A BLENDED STARTER MIX AT A 1:1:1 RATIO OF N, P & K (80 LBS/ACRE FOR EACH NUTRIENT).

ALL SEEDED AREAS SHALL BE COVERED WITH A STRAW MATT. SEEDED AREAS WITH SLOPES STEEPER THAN 8:1 SHALL BE COVERED WITH AN EROSION CONTROL BLANKET.

IF TEMPORARY SEEDING IS NEEDED, TEMPORARY SEEDED MIX AREAS SHALL UTILIZE A 50 LBS/AC PERENNIAL RYEGRASS
64 LBS/AC SPRING OATS
SEEDING RATE: 114 LB PER ACRE

ENGINEERS CERTIFICATE

This erosion control plan was prepared by me or under my direct supervision, and complies with the Urban Soil Erosion Control and Standards in Illinois manual (latest edition) and the generally recognized methods in use in the area.

DATED THIS _____ DAY OF _____, A.D. 2018

ILLINOIS LICENSED PROFESSIONAL ENGINEER NO. 062-
MY COMMISSION EXPIRES NOVEMBER, 30, 2019

EROSION CONTROL MAINTENANCE CONTACT DURING (& AFTER) CONSTRUCTION:

NAME: _____
ADDRESS: _____
PHONE: _____

EROSION CONTROL MAINTENANCE

THE EROSION & SEDIMENT CONTROL INCLUDES MAINTAINING THE PROTECTION ON STORM SEWERS/ INLETS, SILT FENCE, CONSTRUCTION ENTRANCE, AND OVERLAND FLOW ROUTES. THE FOLLOWING MAINTENANCE TASKS SHOULD BE PERFORMED AT THE END OF EVERY WEEK & AT THE END OF THE WORK DAY ON DAYS WHERE RAINFALL IS IN THE FORECAST:

- DEBRIS REMOVAL. ALL DEBRIS SHALL BE REMOVED AND SPECIAL CARE TO NOT ALLOW DISCHARGE BACK INTO THE STORM WATER SYSTEM TO PREVENT CLOGGING OF INLETS AND STORM SEWER.
- OBSTRUCTION REMOVAL. ALL OBSTRUCTIONS SHALL BE REMOVED DAILY.
- REPAIRS. ALL TARES OR OTHER DAMAGE THAT IMPAIRS THE FUNCTION OF ITS CONTROL SHALL BE REPAIRED OR REPLACED AS SOON AS PRACTICABLE.
- SOIL REMOVAL. ANY SOIL THAT GETS DEPOSITED OUTSIDE THE LIMITS OF CONTROL SHALL BE CLEANED DAILY. SOIL DEPOSITED ON OR IN THE CONTROL SHALL BE CLEANED WEEKLY.

Temporary Erosion Control Notes:

1. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND WILL COUNTY SEDIMENT & EROSION CONTROL REQUIREMENTS.
2. INLET AND PIPE PROTECTION SHALL BE INSTALLED IMMEDIATELY AFTER STORM SEWER CONSTRUCTION. CONTRACTOR SHALL PLACE SEDIMENT BAG UNDER LIDS OF ALL PROPOSED DRAINAGE STRUCTURES.
3. RUNOFF FROM EXCAVATED AREAS SHALL LEAVE THE SITE THROUGH SEDIMENT CONTROL DEVICES. THE CONTRACTOR SHALL ADJUST HIS OPERATION AND IMPLEMENT EROSION CONTROL MEASURES ACCORDINGLY.
4. THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN 14 DAYS AFTER CONSTRUCTION ACTIVITIES IN THAT AREA WHEN CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
5. ANY STOCKPILES THAT WILL REMAIN IN PLACE FOR MORE THAN 3 DAYS SHALL HAVE SILT FENCE INSTALLED.

Storm Water Pollution Prevention Notes:

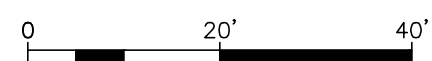
1. THE OWNER, ENGINEER, AND CONTRACTOR SHALL BE FAMILIAR WITH NPDES GENERAL PERMIT ILR-10 AND THE REQUIRED DOCUMENTS ASSOCIATED WITH THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
2. THE OWNER IS RESPONSIBLE FOR SUBMITTING THE NOTICE OF INTENT (NOI) TO THE IEPA AFTER THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS COMPLETE. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT THE NOI IS POSTMARKED AT LEAST 30 DAYS BEFORE COMMENCEMENT OF ANY WORK ON SITE.
3. PRIOR TO COMMENCEMENT FOR CONSTRUCTION, THE OWNER SHALL PROVIDE WRITTEN NOTIFICATION TO THE IEPA OF COMPLETION OF THE SWPPP AND THAT SAID PLAN IS AVAILABLE AT THE SITE.
4. THE CONTRACTOR IS RESPONSIBLE FOR HAVING THE SWPPP ON SITE AT ALL TIMES.
5. INSPECTION OF CONTROLS WILL BE COMPLETED BY THE OWNER AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A STORM 0.5" OR GREATER.
6. AN INCIDENT OF NON-COMPLIANCE (NOC) MUST BE COMPLETED AND SUBMITTED BY THE OWNER TO THE IEPA IF, AT ANY TIME, AN EROSION OR SEDIMENT CONTROL DEVICE FAILS.
7. A NOTICE OF TERMINATION (NOT) SHALL BE COMPLETED BY THE OWNER IN COMPLIANCE WITH NPDES PHASE II REQUIREMENTS WHEN ALL PERMANENT EROSION CONTROL MEASURES ARE IN PLACE WITH A 70% ESTABLISHMENT RATE OF VEGETATION. THE NOT SHALL BE SENT TO THE IEPA.
8. THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO CONTROL WASTE SUCH AS DISCARDED BUILDING MATERIALS AND LITER IN PROPER DUMPSTERS, CONCRETE TRUCK WASHOUT IN WASHOUT FACILITY. CHEMICALS SHALL BE STORED AND DISPOSED OF PER MANUFACTURER'S, AND SANITARY WASTE IN PORTABLE TOILET FACILITY. THE CONSTRUCTION SITE SHALL NOT CAUSE ADVERSE IMPACTS TO WATER QUALITY. THE CONTRACTOR SHALL HAVE THE LOCATIONS OF THE TEMPORARY FACILITIES APPROVED BY THE OWNER.
9. ALL STORM SEWER FRAMES AND GRATES/LIDS SHALL BE MARKED WITH "DUMP NO WASTE" AND "DRAINS TO CREEK".

SEE COVER SHEET GENERAL NOTES ON STORM WATER, SEDIMENT & EROSION CONTROL FOR ADDITIONAL REQUIREMENTS ON EROSION CONTROL.

STORM WATER CONSTRUCTION SEQUENCE IMPLEMENTATION SCHEDULE

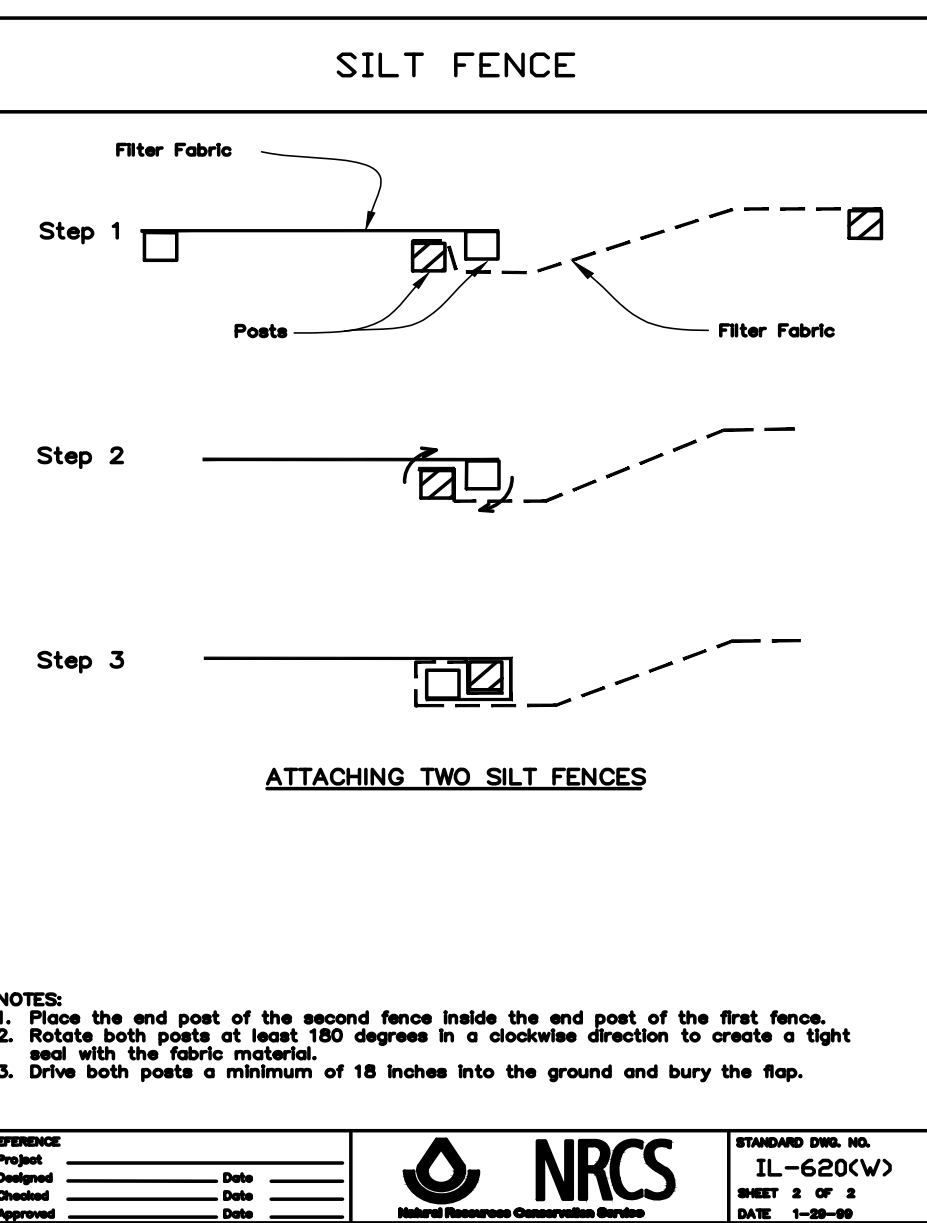
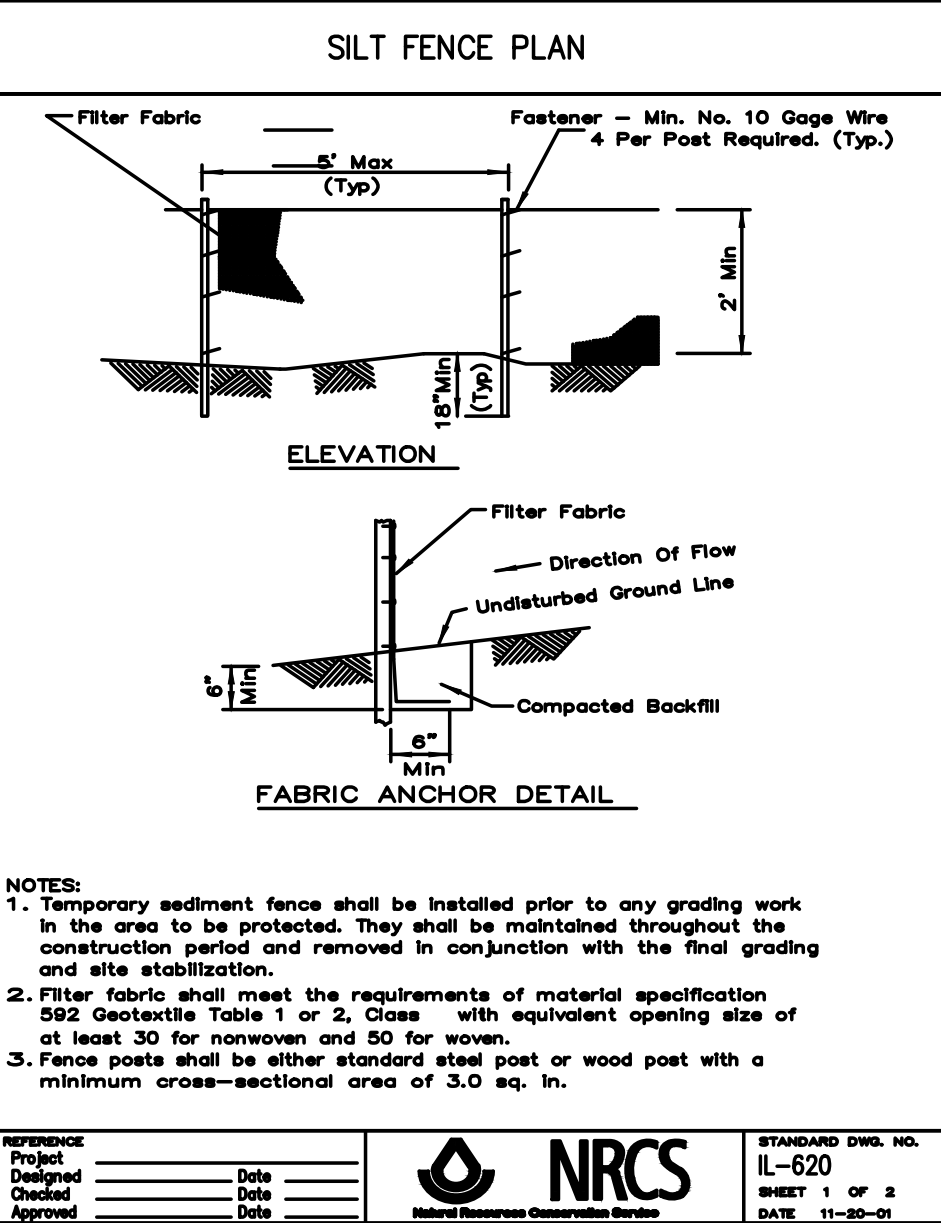
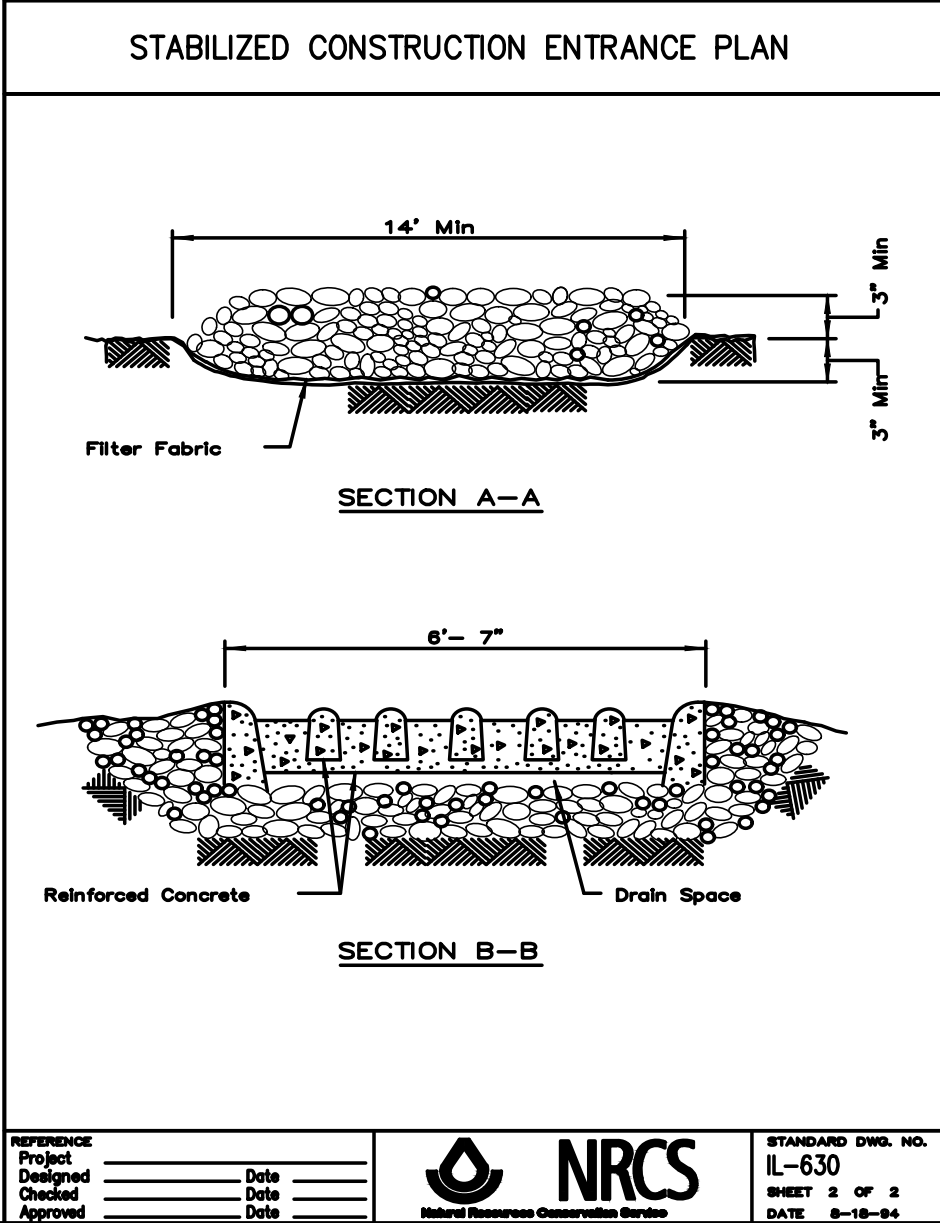
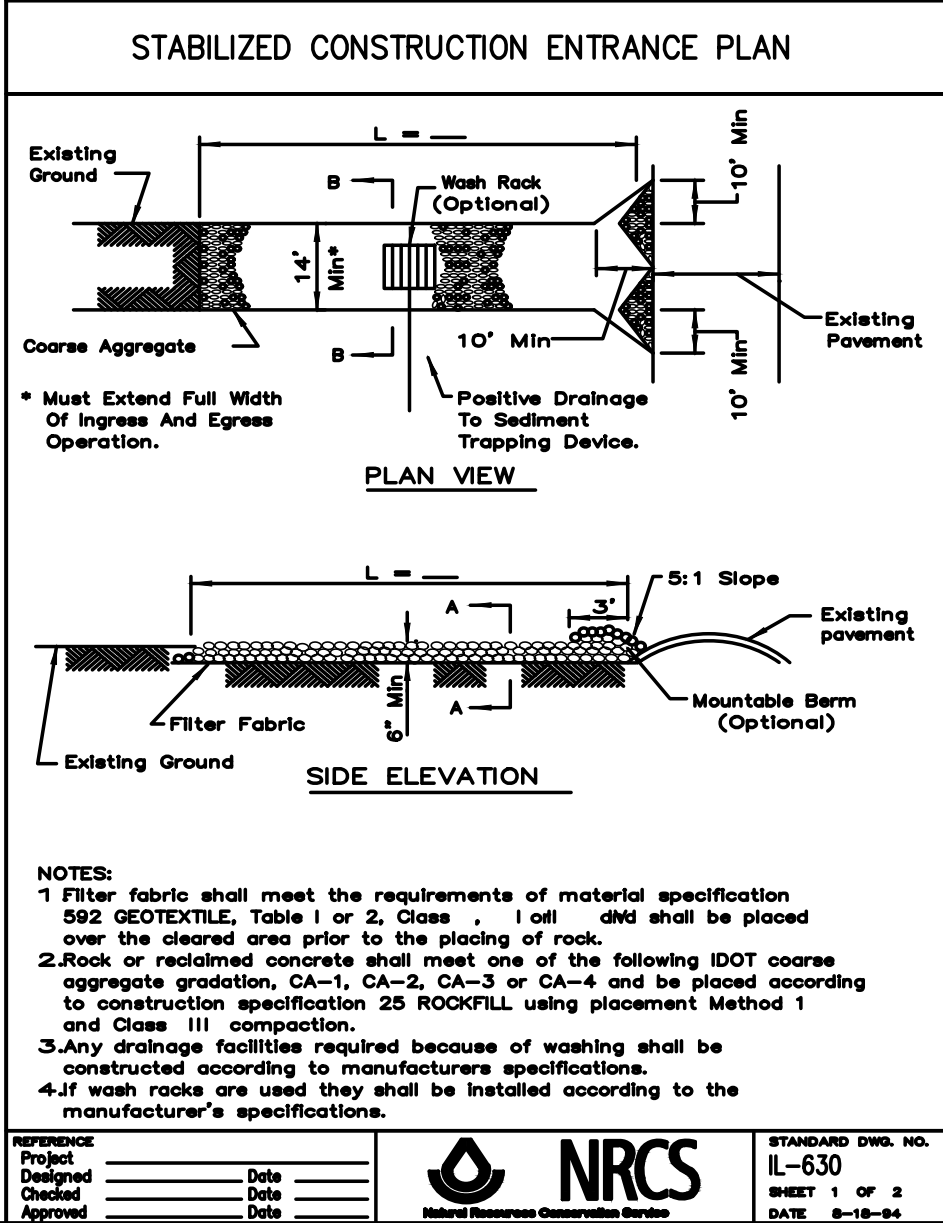
1. INSTALL PERIMETER SILT FENCE
2. SITE MASS GRADING
3. INSTALL UNDERGROUND UTILITIES
4. INSTALL TEMP. INLET PROTECTION
5. INSTALL CURB & GUTTER
6. PLACE PAVEMENT STRUCTURE
7. FINISH GRADING SITE
8. INSTALL PERMANENT SEEDING
9. REMOVE TEMP. EROSION CONTROL MEASURES

NOTE: AFTER PERMANENT SEEDING IS ESTABLISHED TO A 2" HEIGHT, REMOVAL OF ANY PLASTIC NETTING IN THE EROSION CONTROL BLANKET/ STRAW MAT SHALL BE REQUIRED BY THE CONTRACTOR.



LEGEND

- S - PERIMETER EROSION BARRIER (SILT FENCE) UNDER SEPARATE COVER
- [Symbol] - PROPOSED TEMPORARY INLET PROTECTION UNDER SEPARATE COVER



PLAN EDITION MILESTONES		DATE	BY	DESCRIPTION
	ISSUED TO CLIENT	3/2/2018	BRH	
	ISSUED FOR PERMIT	3/12/2018	BRH	
	VALUE REVIEW	4/25/2018	RV	
	VALUE REVIEW	6/20/2018	RV	

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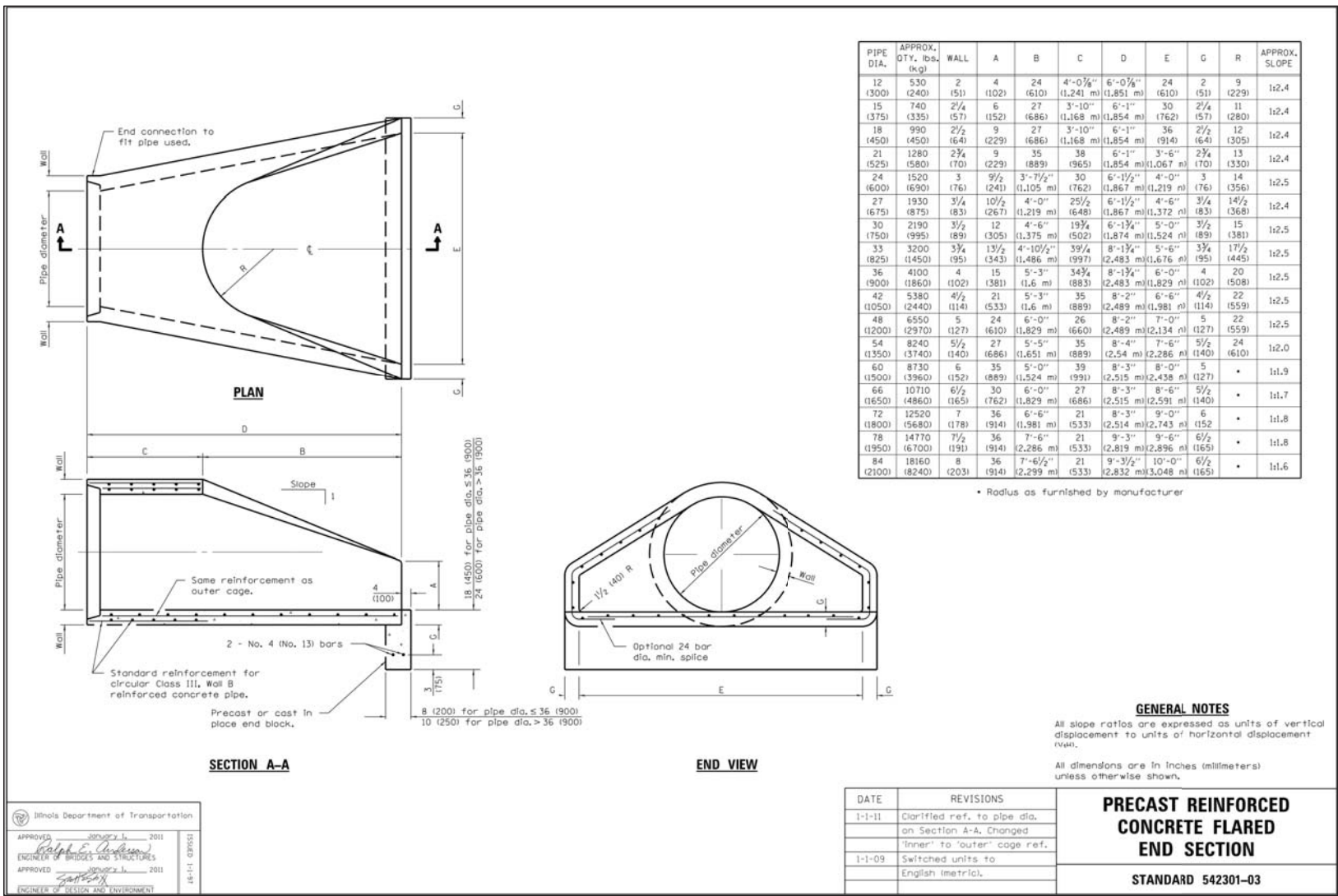
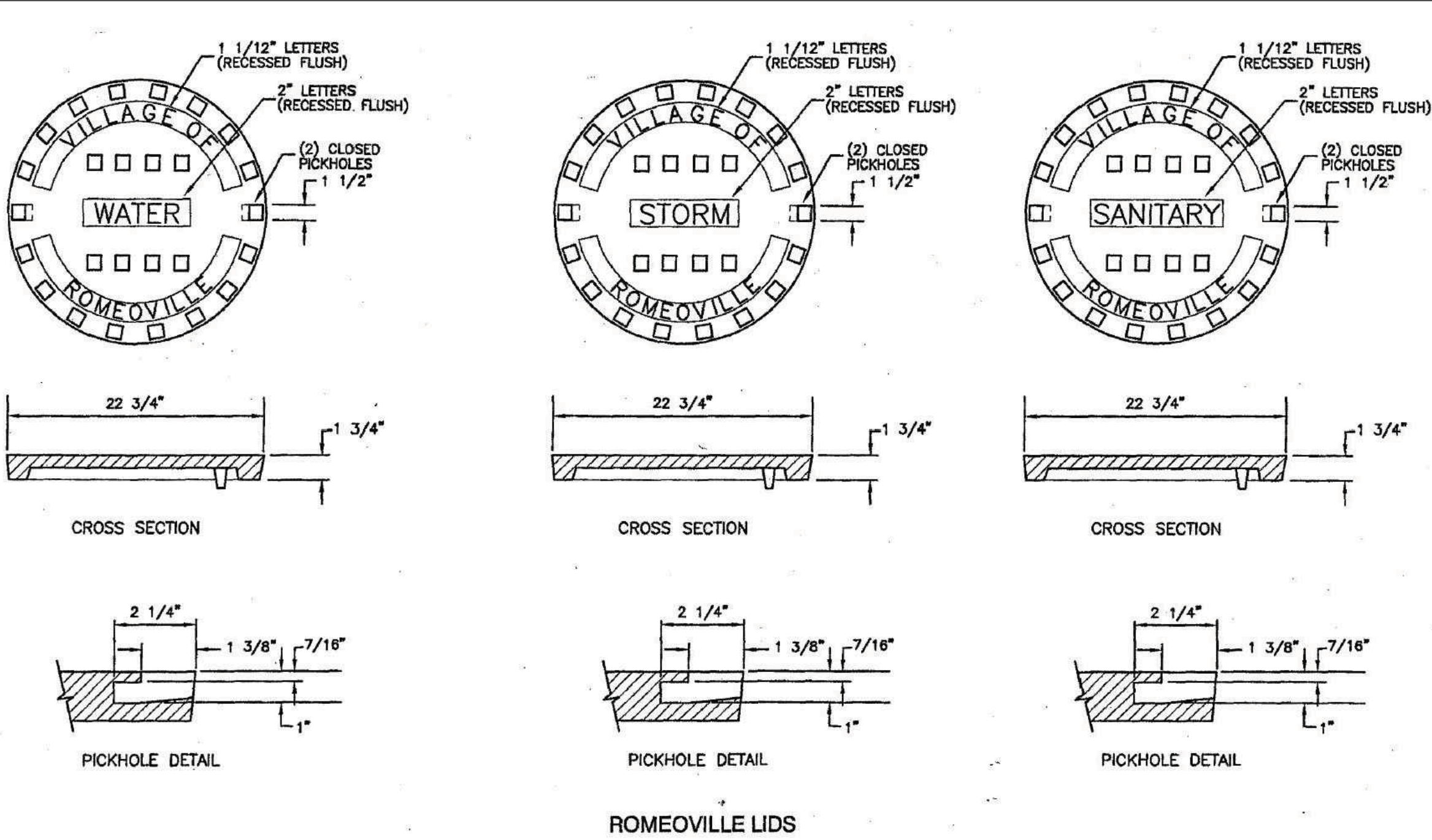
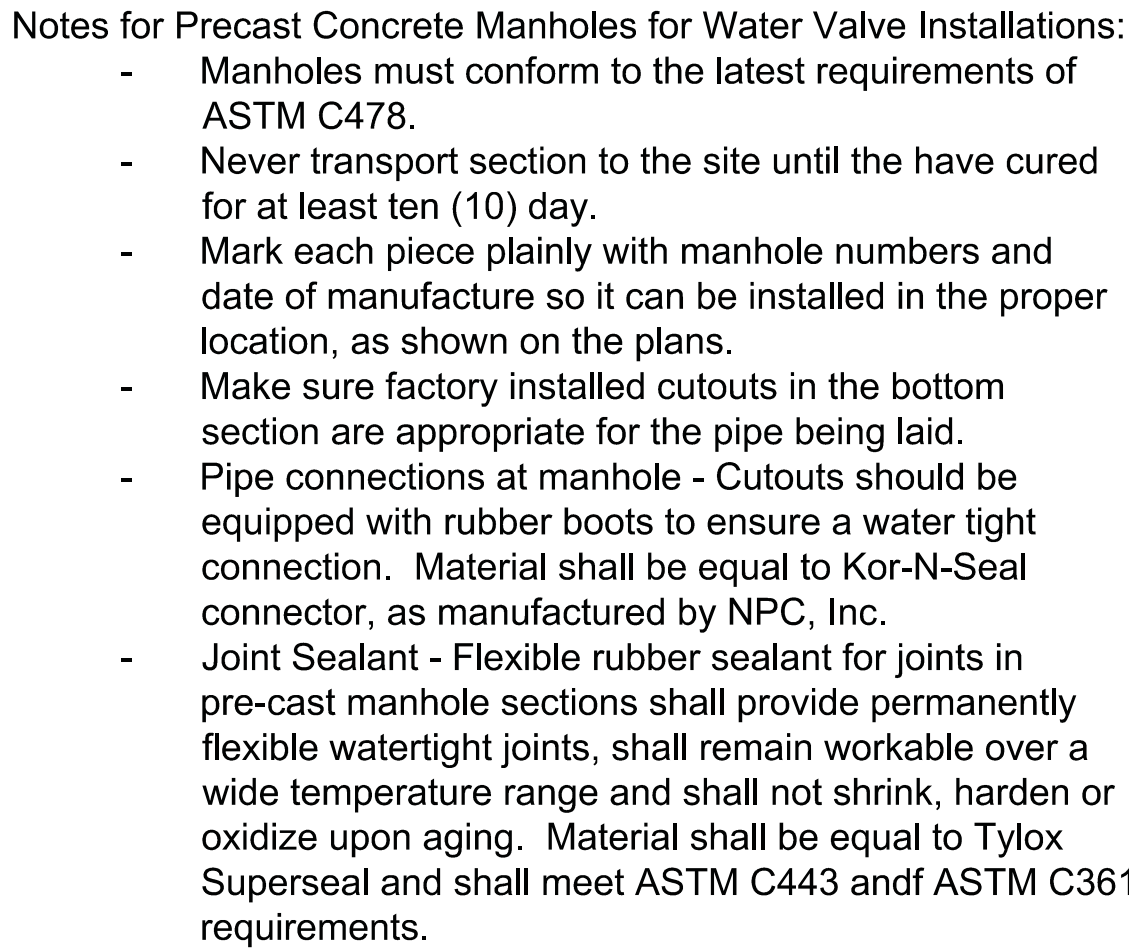
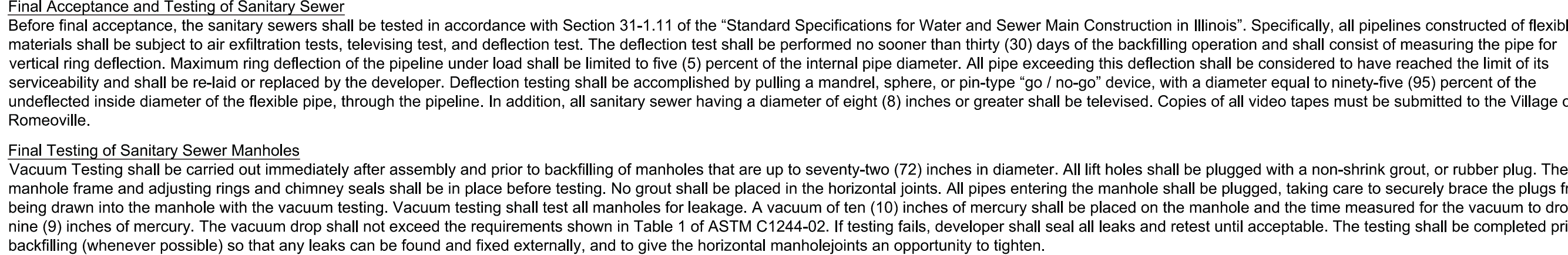
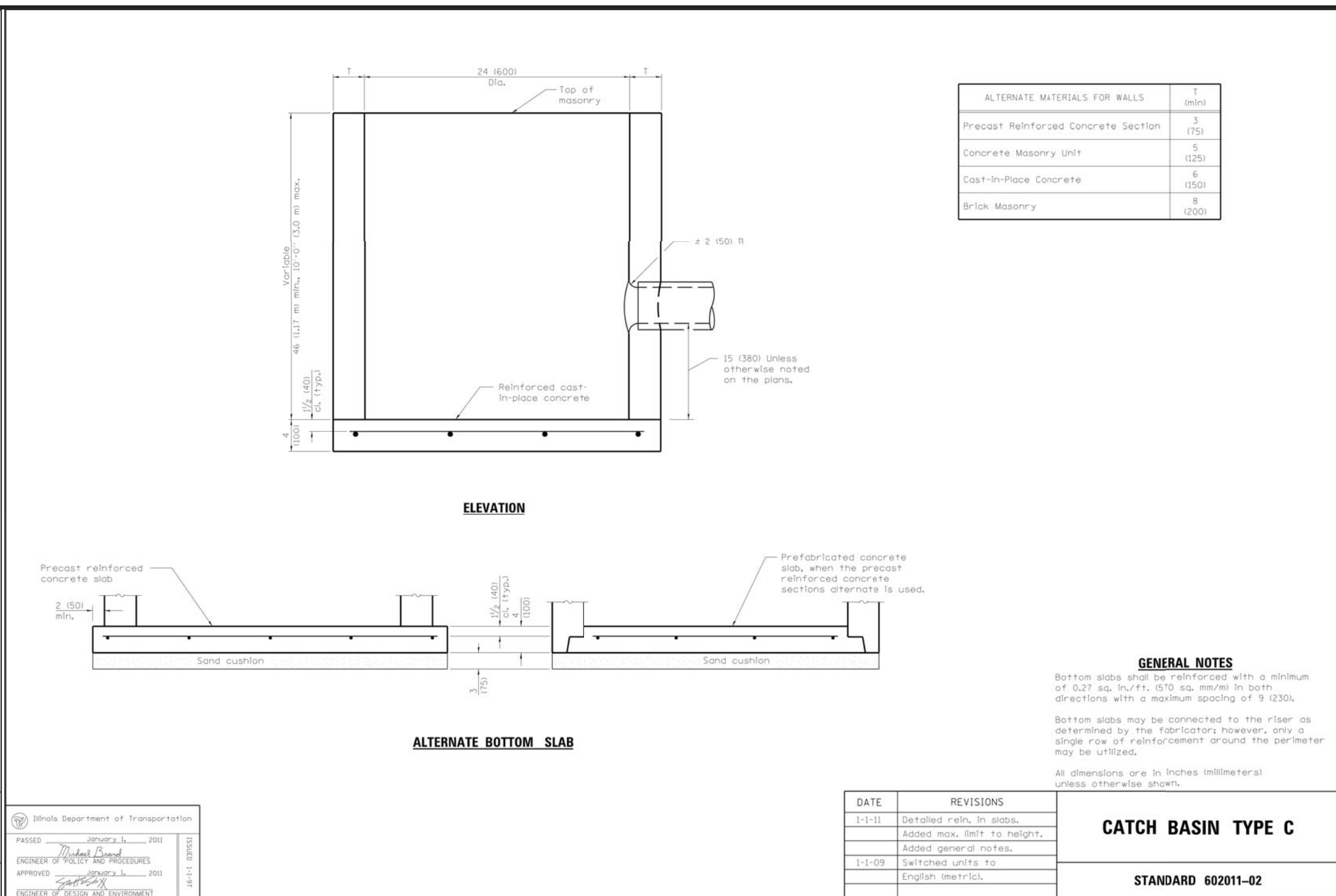
CARDINAL LIQUORS
ROMEIOVILLE, ILLINOIS

SWPPP

SHEET NO. **C5** OF **C7**

JOB NO. 17-547

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Bradley, Illinois 60915
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FX. 815-939-9810

MG

DESIGN: BPH
DRAWING: NIB
CHECKED: BPH
APPROVED: BPH

PROFESSIONAL DESIGN
FIRM #184.005003

CARDINAL LIQUORS ROMEIOVILLE, ILLINOIS	DETAILS
SHEET NO. C6 OF C7	
JOB NO. 17-547 © 2010 M. GINGERICH, GEREALUX & ASSOCIATES	

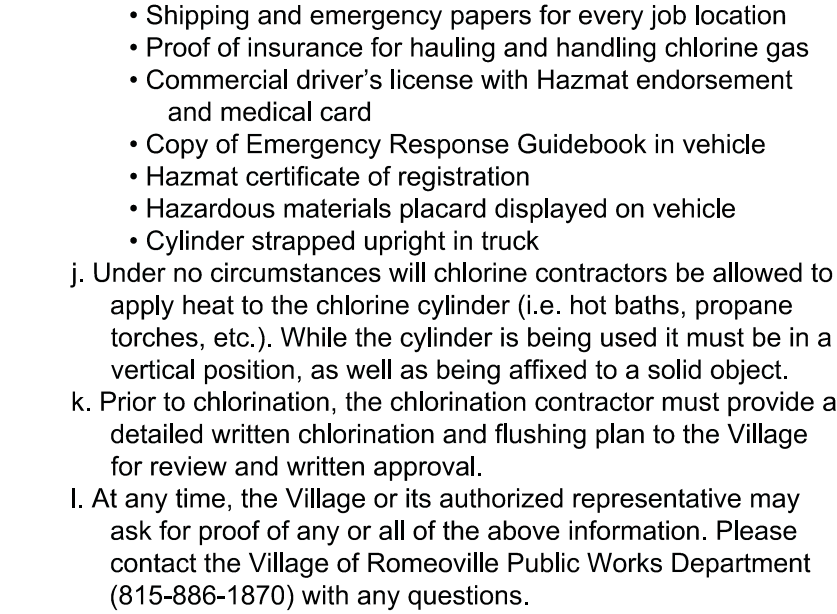
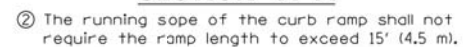


- ## FIRE HYDRANT



- ### TYPICAL OFF STREET HANDICAPPED PARKING DETAIL

TYPICAL OFF STREET HANDICAPPED PARKING DETAIL



LIGHT POLE FOUNDATION DETAIL



BARRIER CURB

MOUNTABLE CURE

ADJACENT TO PCC BASE COURSE

GENERAL NOTES

The bottom slope of combination curb and gutter constructed adjacent to pcc pavement shall be the same slope as the subbase or 6% 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

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

See Standard 60050, for details of corner islands.

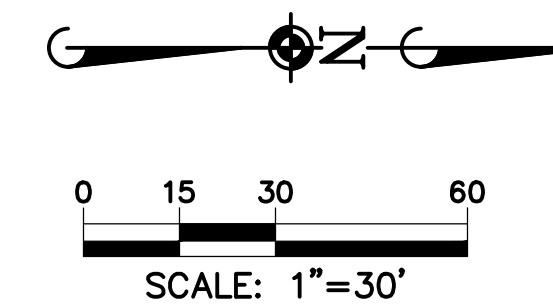
All dimensions are in inches (millimeters) unless otherwise shown.

CONCRETE CURB TYPE B

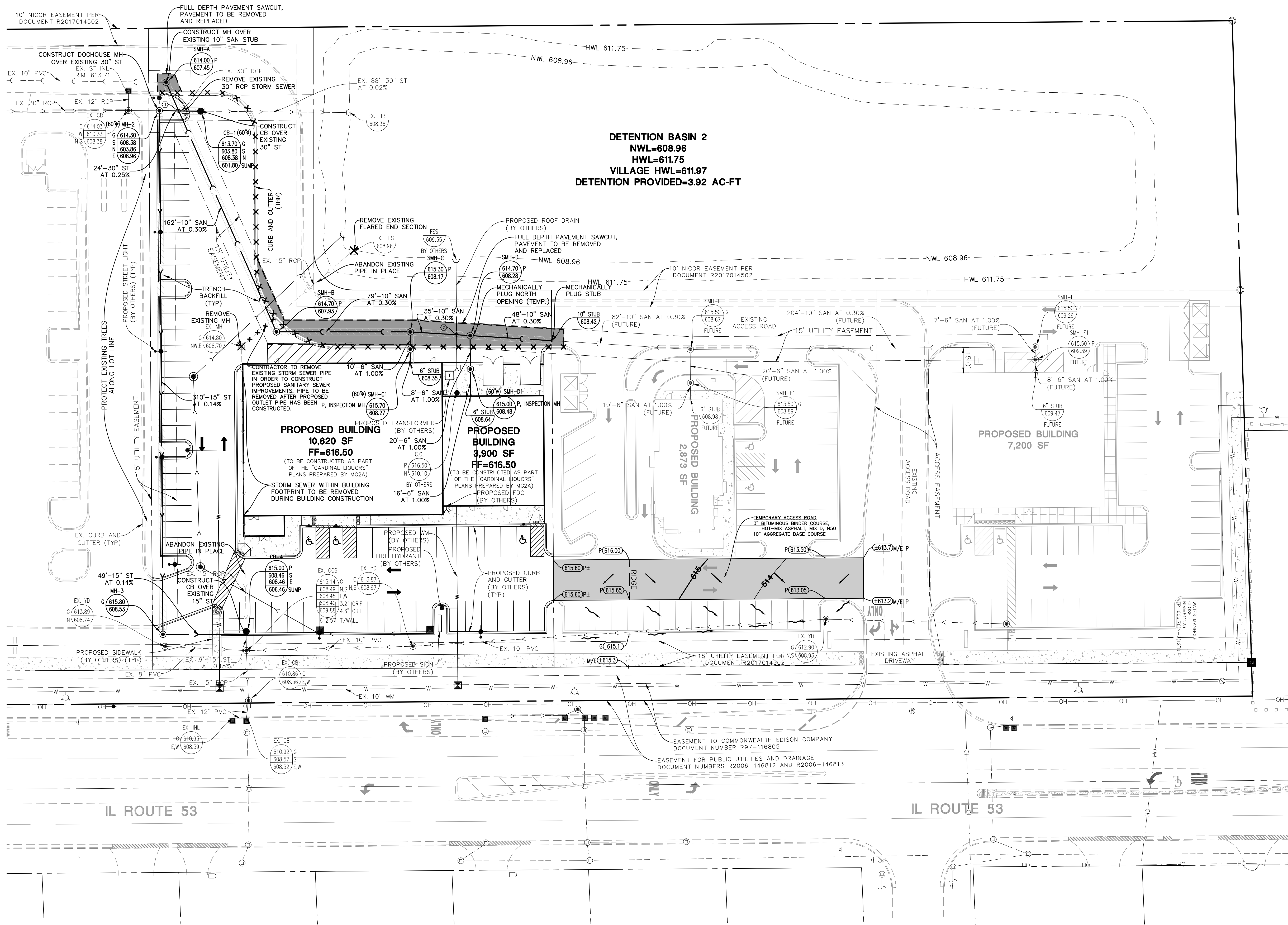
AND COMBINATION
CONCRETE CURB AND GUTTER

CONCRETE CURB AND GUTTER
(Sheet 1 of 2)





SEE "CARDINAL LIQUORS" PLANS PREPARED BY M. GINGERICH,
GEREAUX AND ASSOCIATES (MG2A) FOR ALL WORK BY OTHERS.



- UTILITY NOTES:**
1. ALL UTILITY DIMENSIONS ARE TO CENTER OF PIPE OR CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
 2. BUILDING DIMENSIONS AND ADJACENT UTILITY LAYOUT HAVE BEEN PREPARED BASED UPON ARCHITECTURAL INFORMATION CURRENT AT THE DATE OF THIS DRAWING. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. THEREFORE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS AND EXACT UTILITY ENTRANCE LOCATIONS AND NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
 3. THE CONTRACTOR SHALL CONTACT JULIE (1-800-892-0123) PRIOR TO ANY WORK TO LOCATE UTILITIES AND SHALL CONTACT THE OWNER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENT.
 4. ROUTING OF GAS, ELECTRIC AND TELEPHONE SERVICES IF SHOWN ARE APPROXIMATE ONLY AND SUBJECT TO CHANGE BASED UPON FINAL REVIEW AND APPROVAL BY RESPECTIVE UTILITY COMPANIES AND OWNER. CONTRACTOR SHALL CONTACT EACH UTILITY COMPANY AND COORDINATE FINAL LOCATIONS FOR ALL UTILITY SERVICES PRIOR TO START OF CONSTRUCTION.
 5. CONTRACTOR SHALL EXCAVATE AND VERIFY ALL EXISTING SEWER, WATER MAIN AND DRY UTILITY LOCATIONS, SIZES, CONDITIONS & ELEVATIONS AT PROPOSED POINTS OF CONNECTION AND CROSSINGS PRIOR TO ANY UNDERGROUND CONSTRUCTION AND NOTIFY THE OWNER OF ANY DISCREPANCIES OR CONFLICTS.
 6. LIGHTING AND UNDERGROUND CABLE IF SHOWN ON PLANS ARE FOR APPROXIMATE LOCATION ONLY. REFER TO ARCHITECTURAL PLANS FOR SPECIFICATIONS AND DETAILS.
 7. THE CONTRACTOR SHALL ADJUST RIM ELEVATIONS OF ALL EXISTING STRUCTURES TO PROPOSED FINISH GRADES.
 8. CONTRACTOR TO VERIFY LOCATION, SIZES, AND ELEVATION OF ALL BUILDING SERVICE LOCATIONS WITH ARCHITECTURAL PLANS.
 9. AT LOCATIONS WHERE WATER MAIN CROSSES BENEATH OR LESS THAN 18" ABOVE A SEWER, PROVIDE WATER MAIN PROTECTION PER STANDARD SPECIFICATIONS FOR SEWER AND WATER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.
 10. ELEVATIONS GIVEN FOR STORM SEWER STRUCTURES LOCATED IN CURB LINE ARE PAVEMENT ELEVATIONS.
 11. ALL WATER MAIN SHALL BE 5'-6" BELOW FINISHED GRADE TO TOP OF MAINS UNLESS NOTED OTHERWISE.
 12. ALL EXISTING UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT ELEVATION OR LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES.
 13. THE UNDERGROUND UTILITY INFORMATION AS SHOWN HERE ON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED.
 14. ALL SANITARY AND STORM SEWER LENGTHS SHOWN ARE CENTER OF MANHOLE TO CENTER OF MANHOLE OR STORM MANHOLE TO FES.
 15. PROVIDE CONCRETE COLLAR FOR ALL MANHOLES & VALVE VAULTS IN PAVEMENT, NOT ADJACENT TO CURB. SEE CONCRETE COLLAR DETAIL ON DETAIL SHEET.
 16. CONTRACTOR SHALL CORE AND BOOT ALL PIPE ENTRANCES TO EXISTING SANITARY MANHOLES.
 17. EXTERNAL CHIMNEY SEALS ARE REQUIRED ON PROPOSED AND ADJUSTED EXISTING SANITARY MANHOLES.
 18. SOME EXISTING ITEMS TO BE REMOVED HAVE BEEN DELETED FROM THIS PLAN FOR CLARITY. SEE DEMOLITION PLAN FOR ITEMS DELETED.
 19. ALL D.I. WATERMAIN FITTINGS SHALL BE WRAPPED.
 20. ALL UNDERGROUND IMPROVEMENTS SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS. IN THE EVENT OF CONFLICTING GUIDELINES, THE MORE RESTRICTIVE SHALL GOVERN.

- *NOTES:**
- ALL UTILITIES TO BE CONSTRUCTED PER THE VILLAGE OF ROMEOVILLE STANDARDS AND SPECIFICATIONS.
 - GRANULAR TRENCH BACKFILL IS REQUIRED UNDER PAVEMENT AND WITHIN 2' OF ALL PAVED SURFACES.
 - PIPES TO BE "ABANDONED IN PLACE" SHALL INCLUDE FILLING PIPES WITH CLSM.
 - A POURED CONCRETE SANITARY SEWER TROUGH IS REQUIRED IN THE MANHOLES FOR EACH SERVICE CONNECTION.

- UTILITY CROSSINGS**
- ① SAN OVER ST
B/P SAN = ±607.5
T/P ST = ±606.6
 - ② ST (BY OTHERS) OVER SAN
B/P ST (BY OTHERS) = ±609.7
T/P SAN = ±609.1

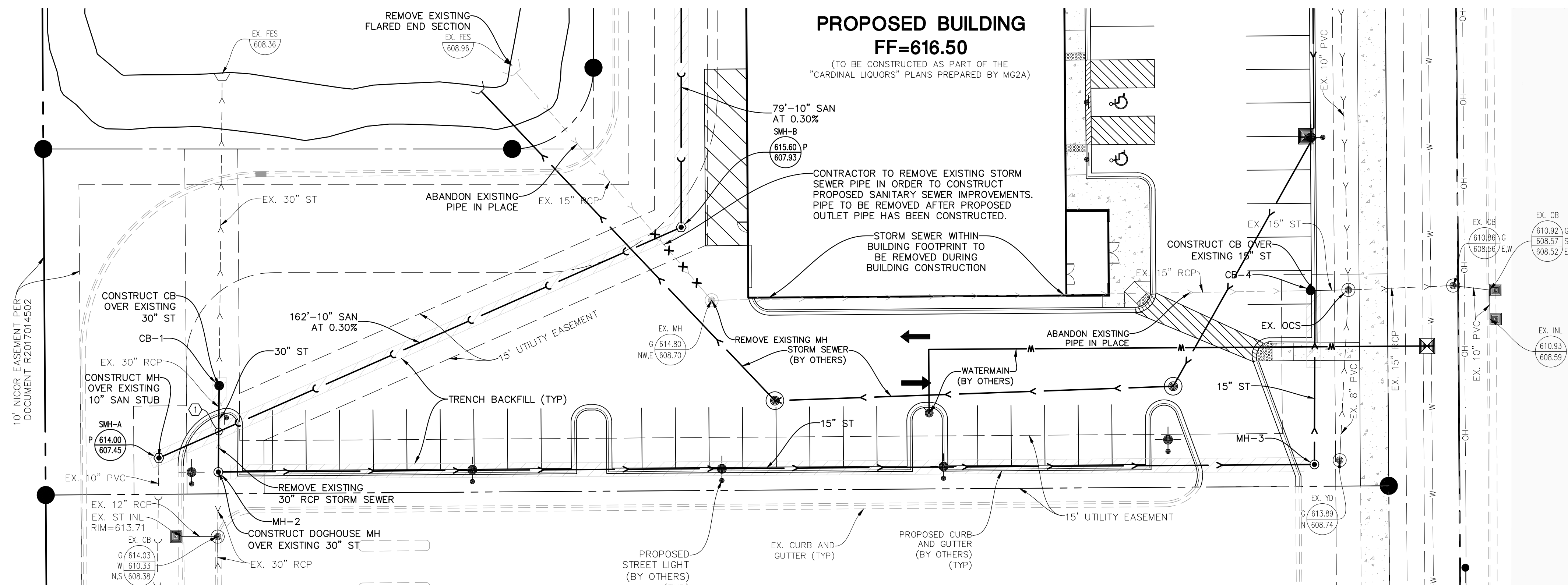
DATE	REVISIONS	COMMENTS
05-15-18		REVISED PER VILLAGE COMMENTS

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Construction Managers • Environmental Scientists • Landscaping Architects • Planners

TROUTMAN AND DAMS - LOT 5
VILLAGE OF ROMEOVILLE, ILLINOIS
UTILITY PLAN

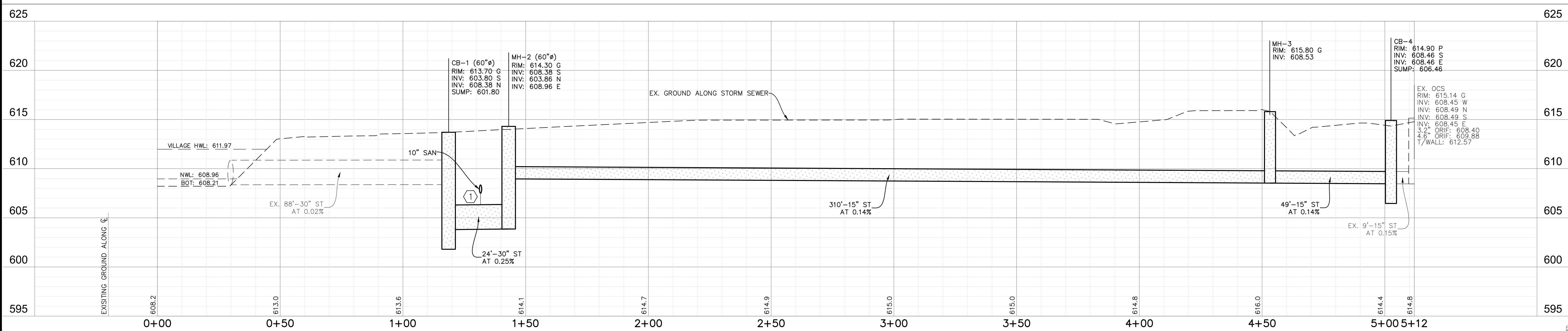
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PROJ. ASSOC.: CAS
DRAWN BY: KRK
DATE: 05-04-18
SCALE: 1"=30'
SHEET
2 OF 8
TAD.RVIL01

PENDING VILLAGE APPROVAL



① SAN OVER ST
B/P SAN = ± 607.5
T/P ST = ± 606.6

PROPOSED STORM SEWER



	DATE	REVISIONS	DRAWN BY
	*		*
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	*05-15-15	REVISED PER VILLAGE COMMENTS	KRK

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**TROUTMAN AND DAMS - LOT 5
VILLAGE OF ROMEIOVILLE, ILLINOIS
STORM SEWER PLAN AND PROFILE**

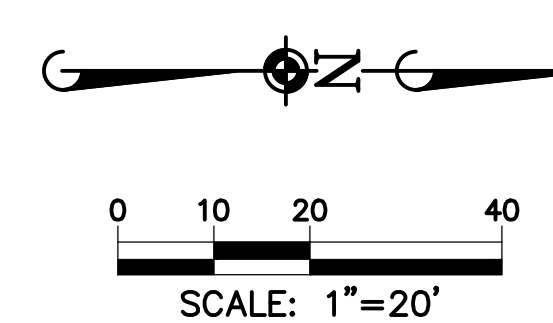
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SHEET

3 OF **8**

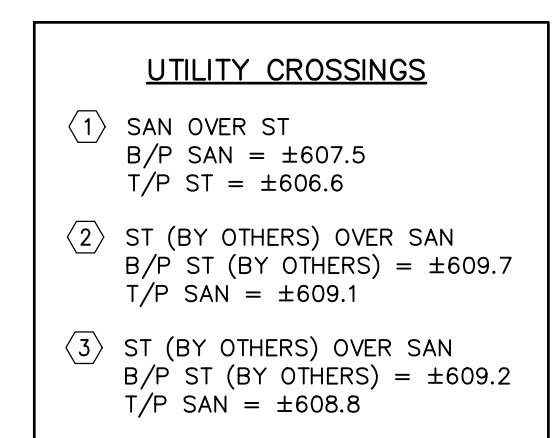
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PENDING VILLAGE APPROVAL



630		630
625		625
620		620
615		615
610		610
605		605
600		600
595		595

630	630		630
625	625		625
620	620		620
615	615	EX. GROUND ALONG SANITARY SEWER	615
610	610		610
605	605		605
600	600		600
595	595		595



TROUTMAN AND DAMS - LOT 5		PROJ. MGR.: BDB
VILLAGE OF ROMEOVILLE, ILLINOIS		PROJ. ASSOC.: CAS
SANITARY SEWER PLAN AND PROFILE		DRAWN BY: KRK
		DATE: 05-04-18
		SCALE: H:1"=20' V:1"=5'
SHEET		
4	OF	8
TAD.RVL01		

0 10 20 40
SCALE: 1"=20'

Sanitary sewer profile view showing existing ground, sewer line, and manholes. The profile is plotted on a grid with elevation on the vertical axis (595 to 630) and stationing on the horizontal axis (3+30 to 6+20).

Key features and data points:

- Existing Ground:** Represented by a dashed line. Elevation values are provided at specific stations: 614.1, 614.3, 615.0, 614.8, 614.4, 614.2, 613.9.
- Sanitary Sewer Line:** Shown as a solid line with a stippled pattern. It consists of a 10" stub and a 204'-10" main line at a 0.30% slope.
- Manholes:**
 - SMH-E (FUTURE):** Located at station 4+00. RIM: 615.50 G, INV: 608.67.
 - SMH-F (FUTURE):** Located at station 6+20. RIM: 615.50 P, INV: 609.29.
- Labels:**
 - 10" STUB INV: 608.42 S
 - 82'-10" SAN AT 0.30% (FUTURE)
 - 204'-10" SAN AT 0.30% (FUTURE)
 - EX. GROUND ALONG SANITARY SEWER
 - EXISTING GROUND ALONG Q

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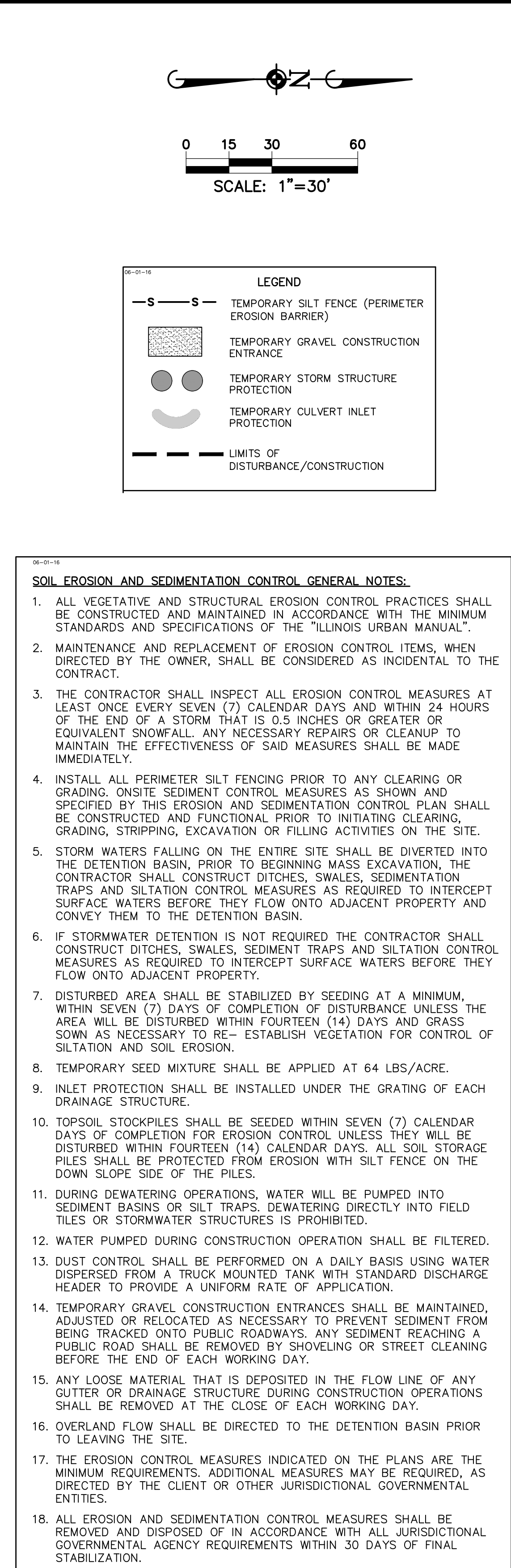
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SHEET

5 OF 8

TAD.RVIL01

PENDING VILLAGE APPROVAL



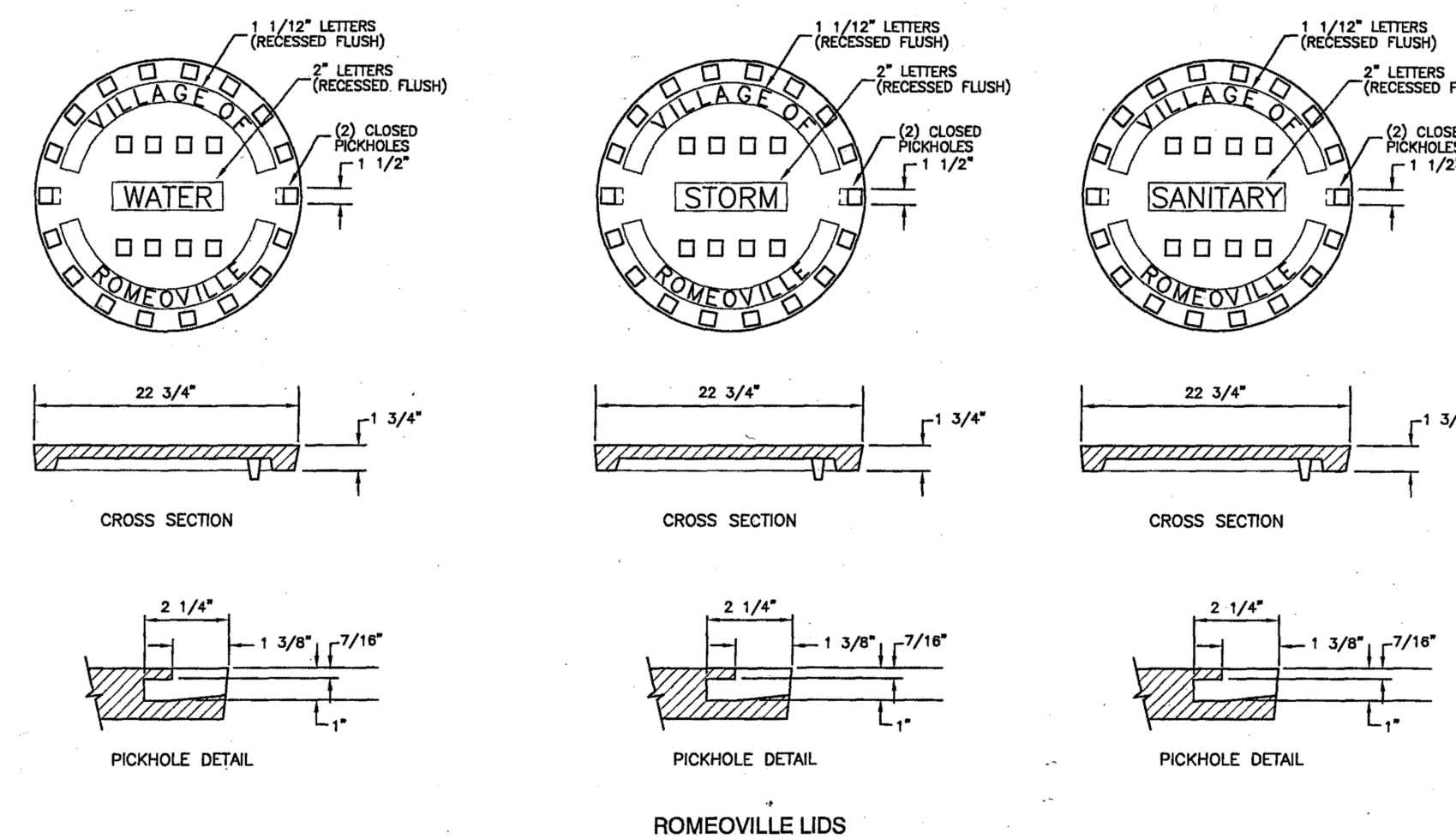
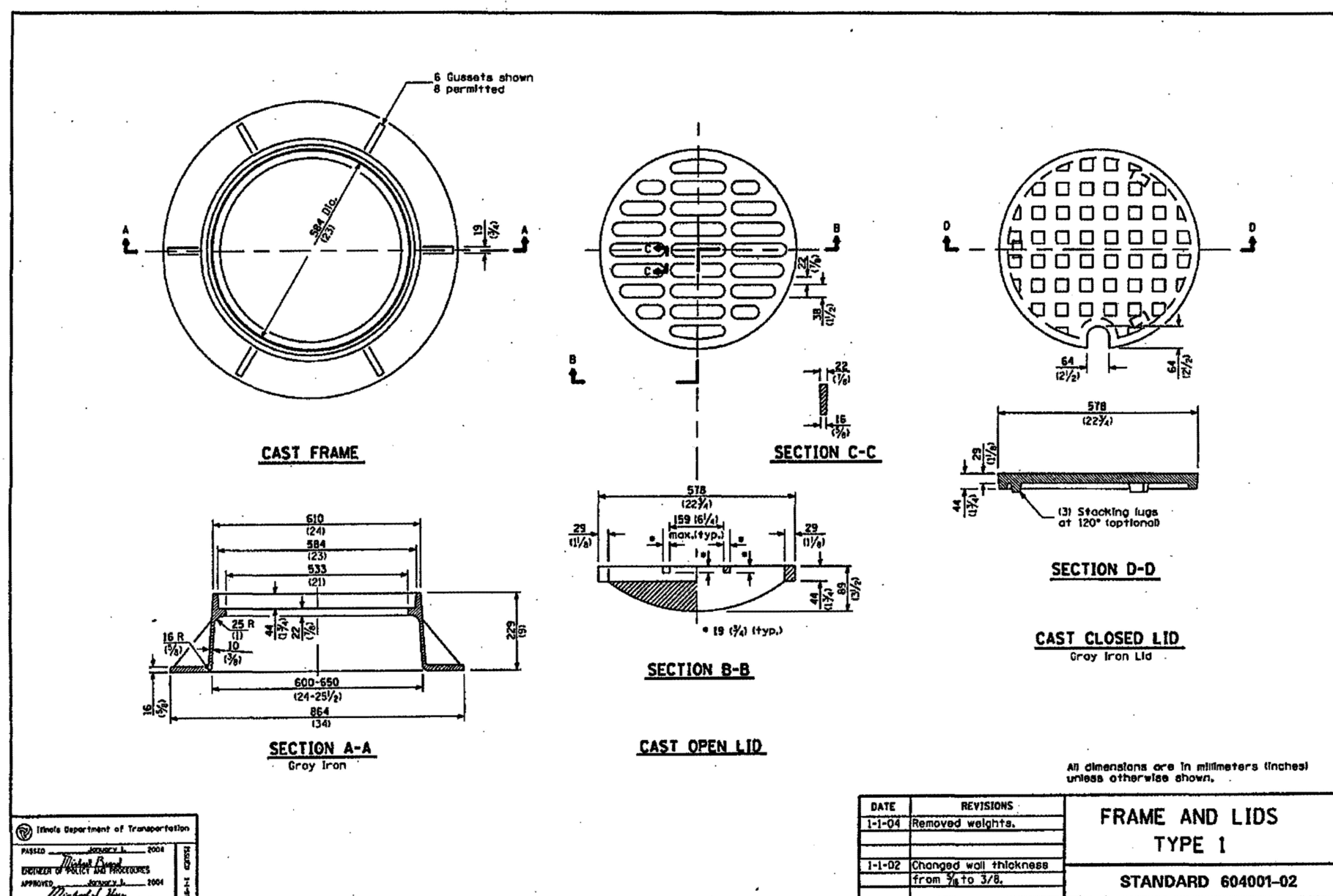
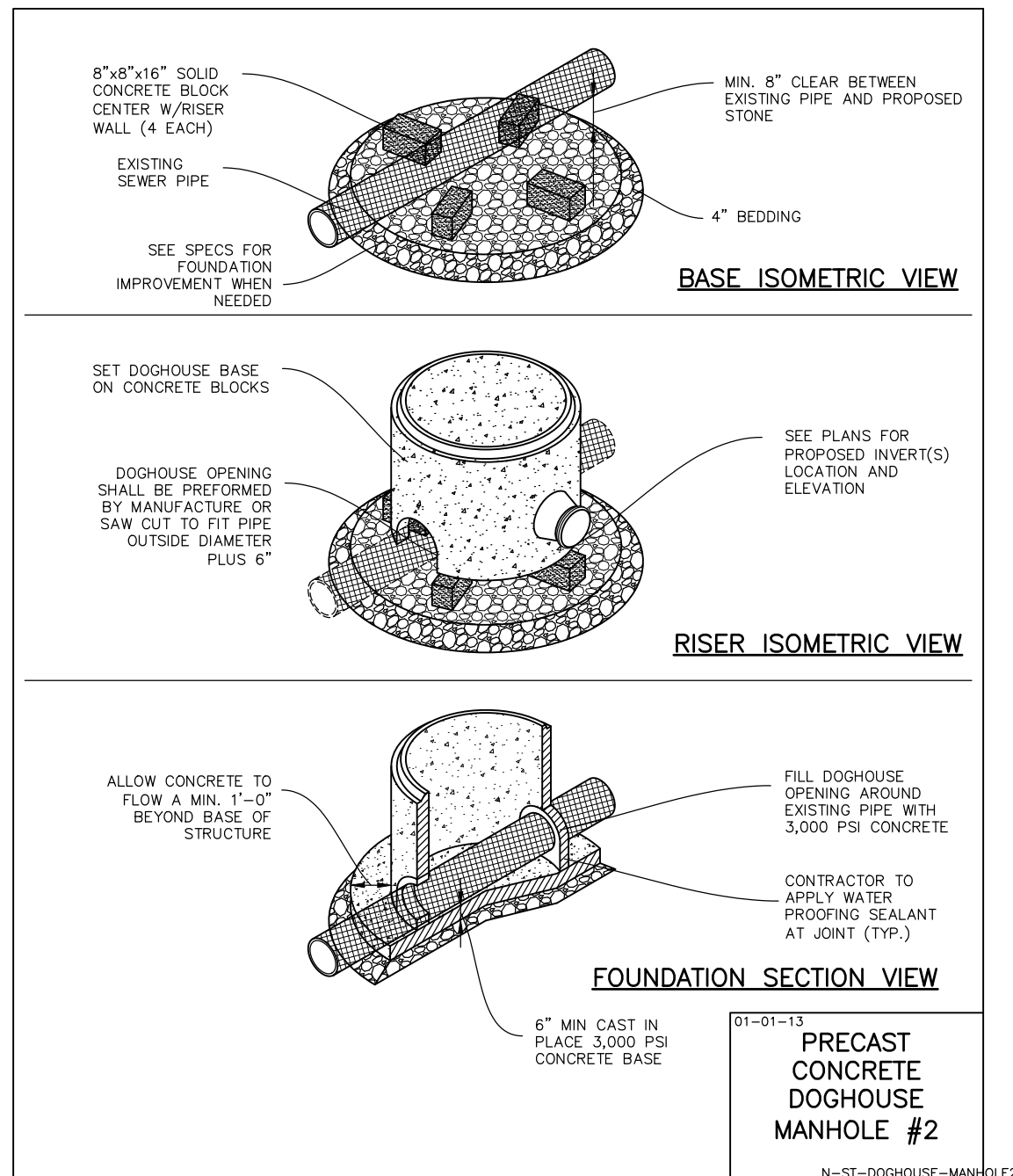
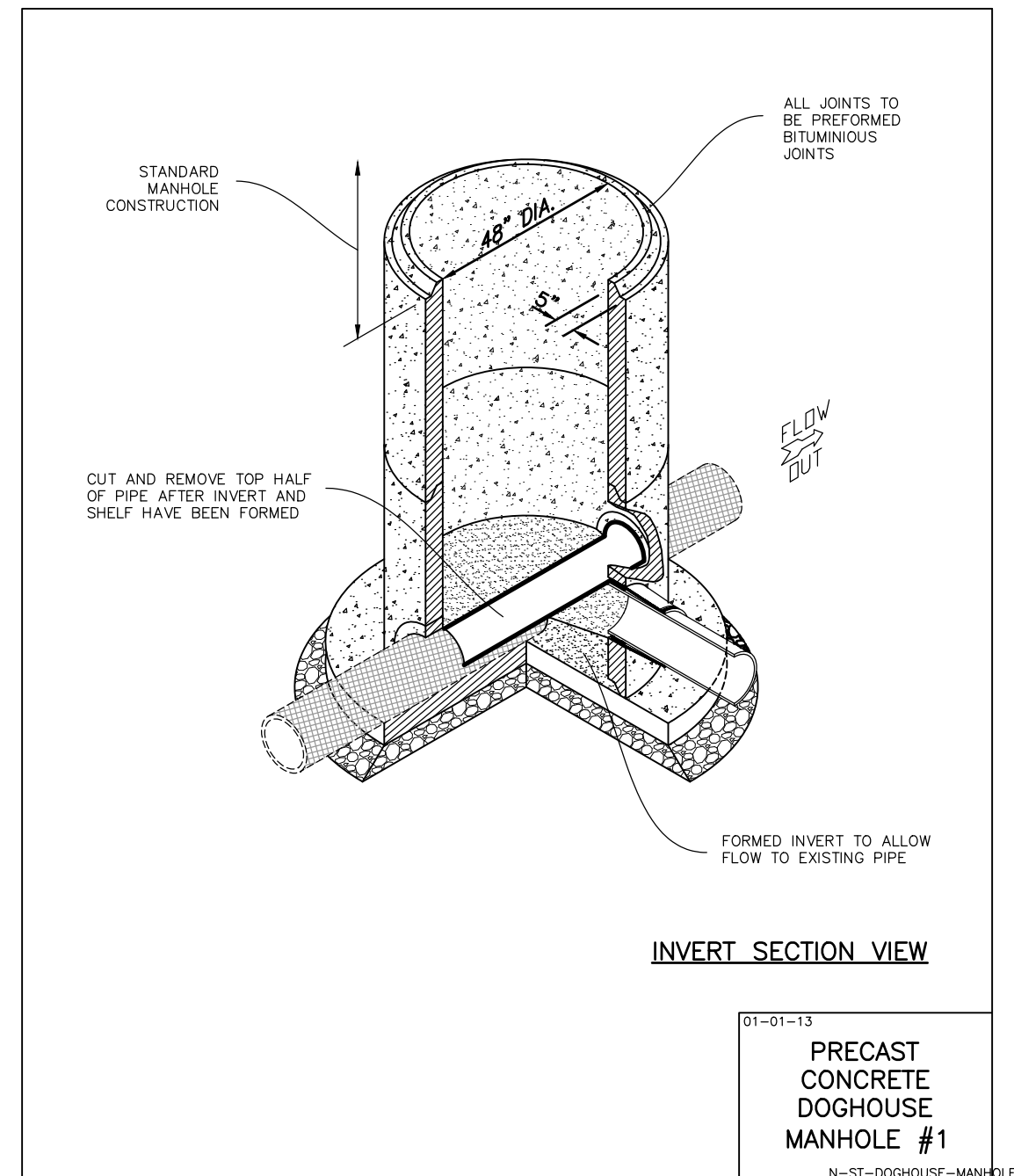
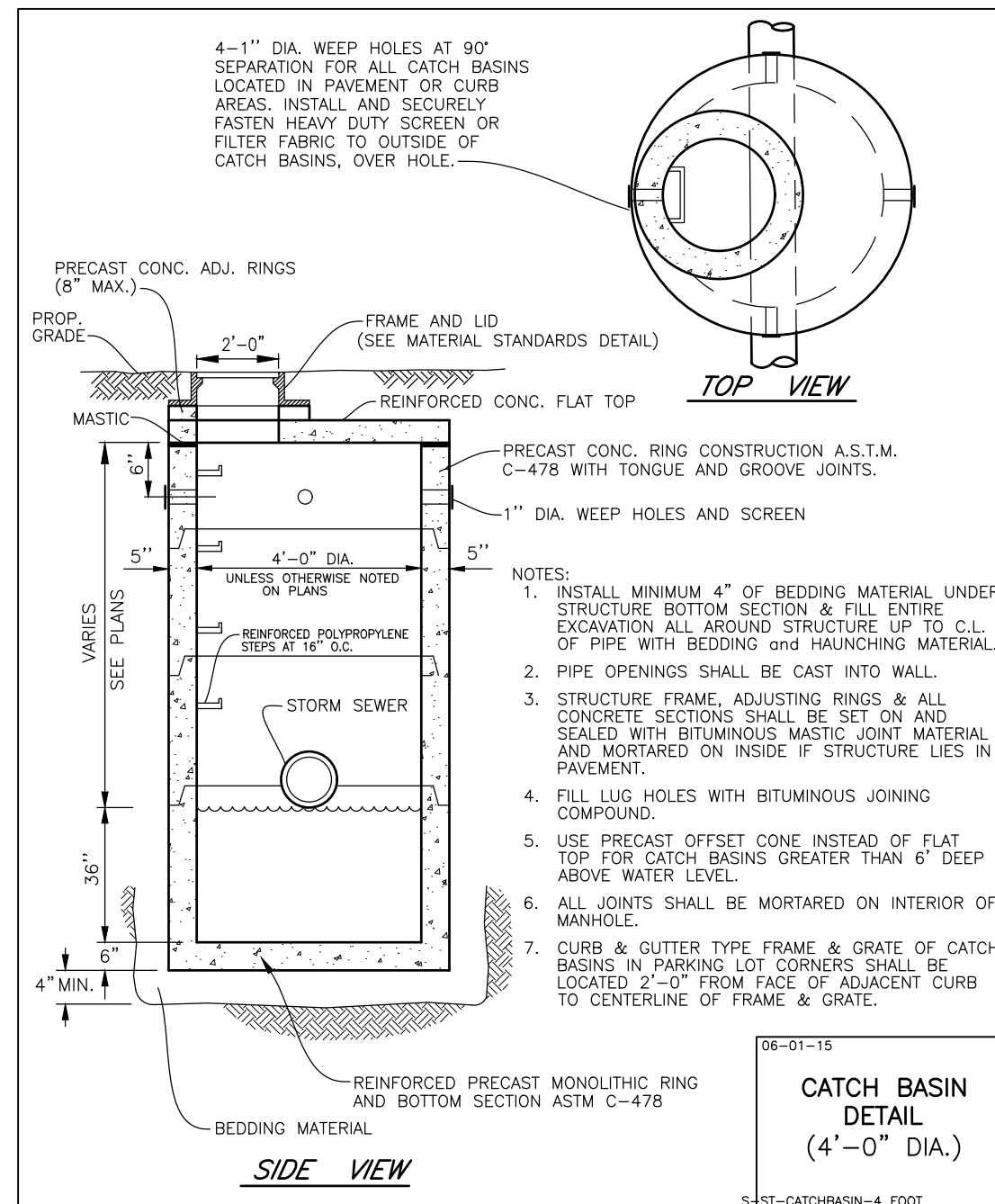
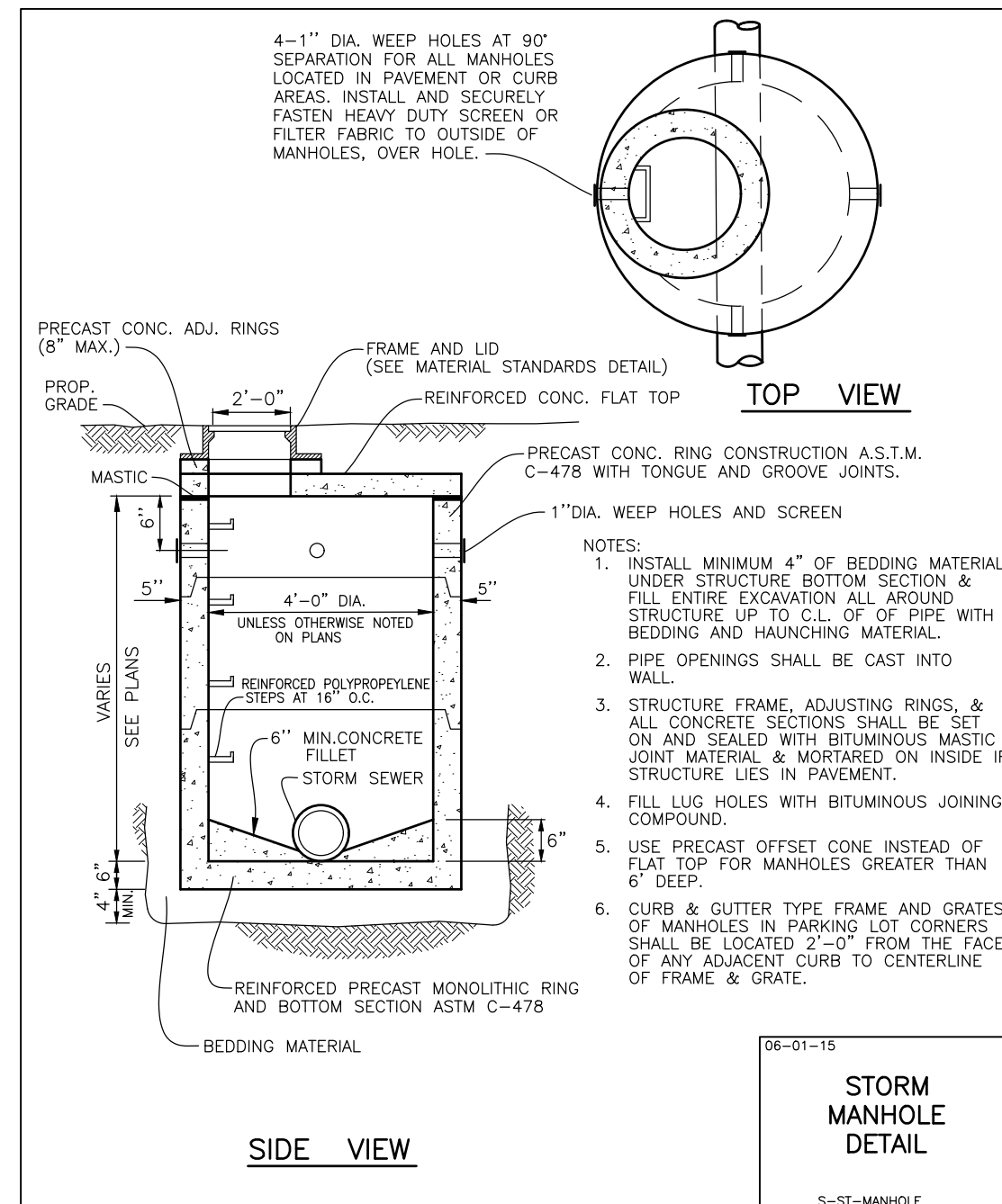
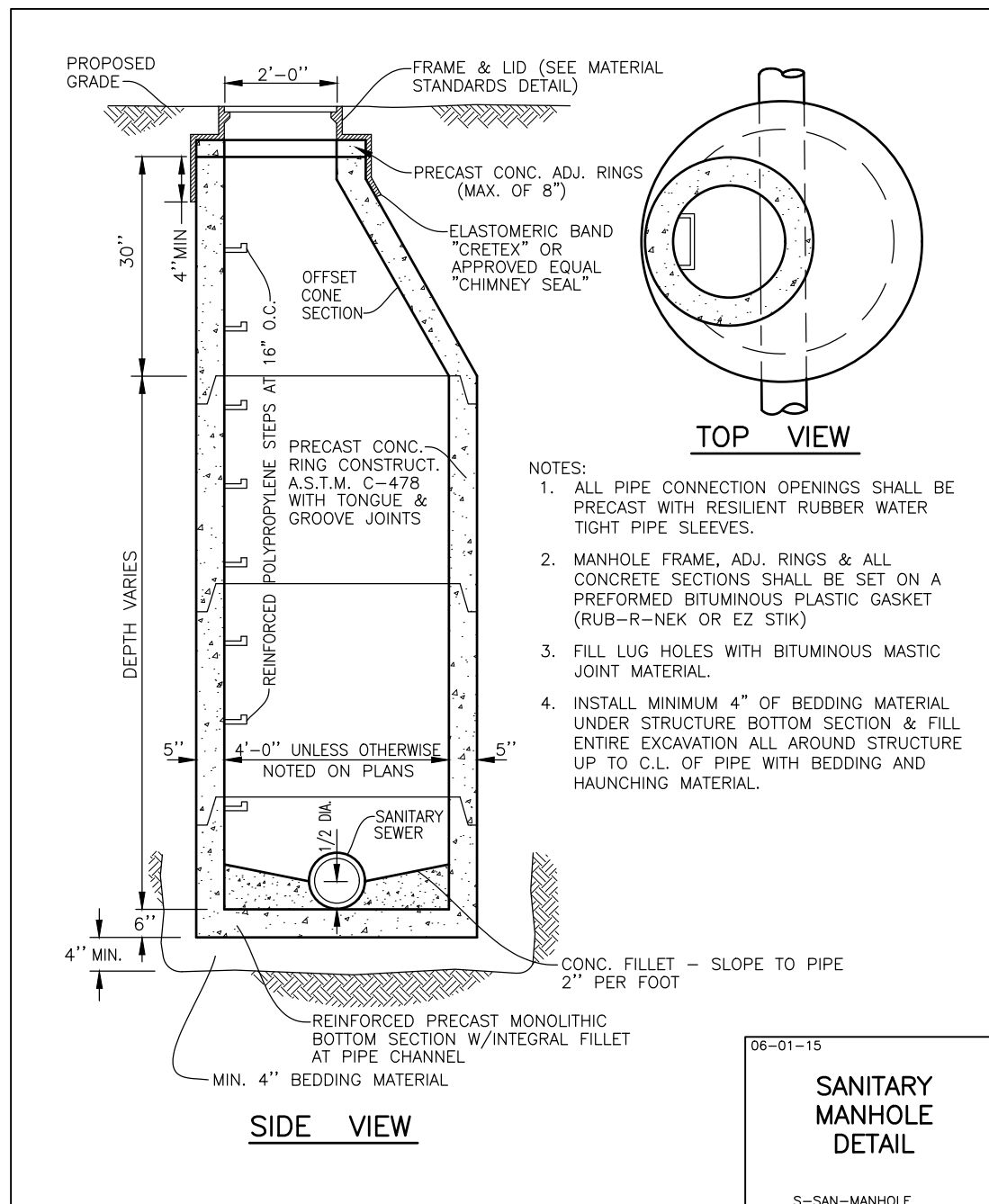
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CONSTRUCTION SEQUENCE:

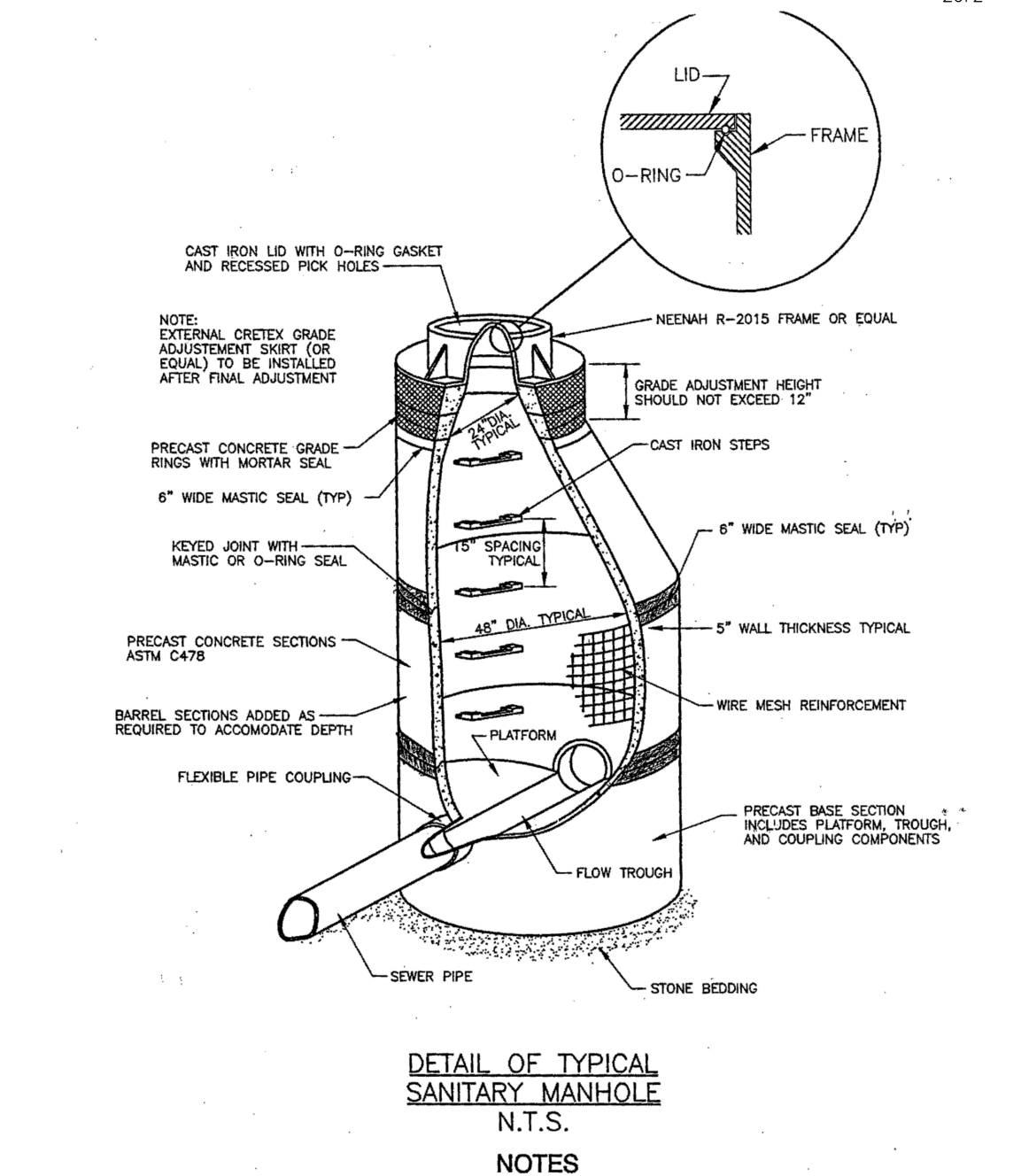
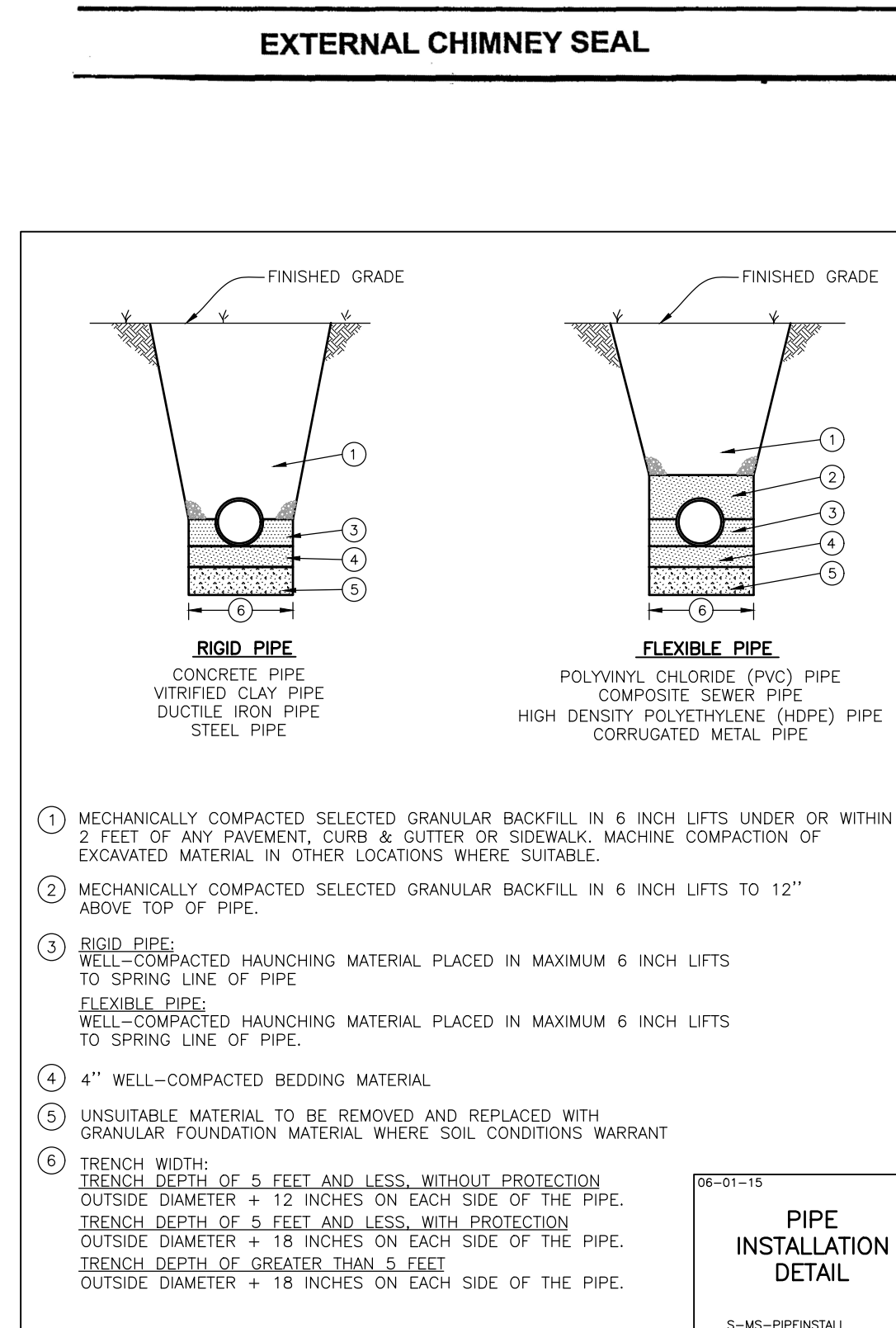
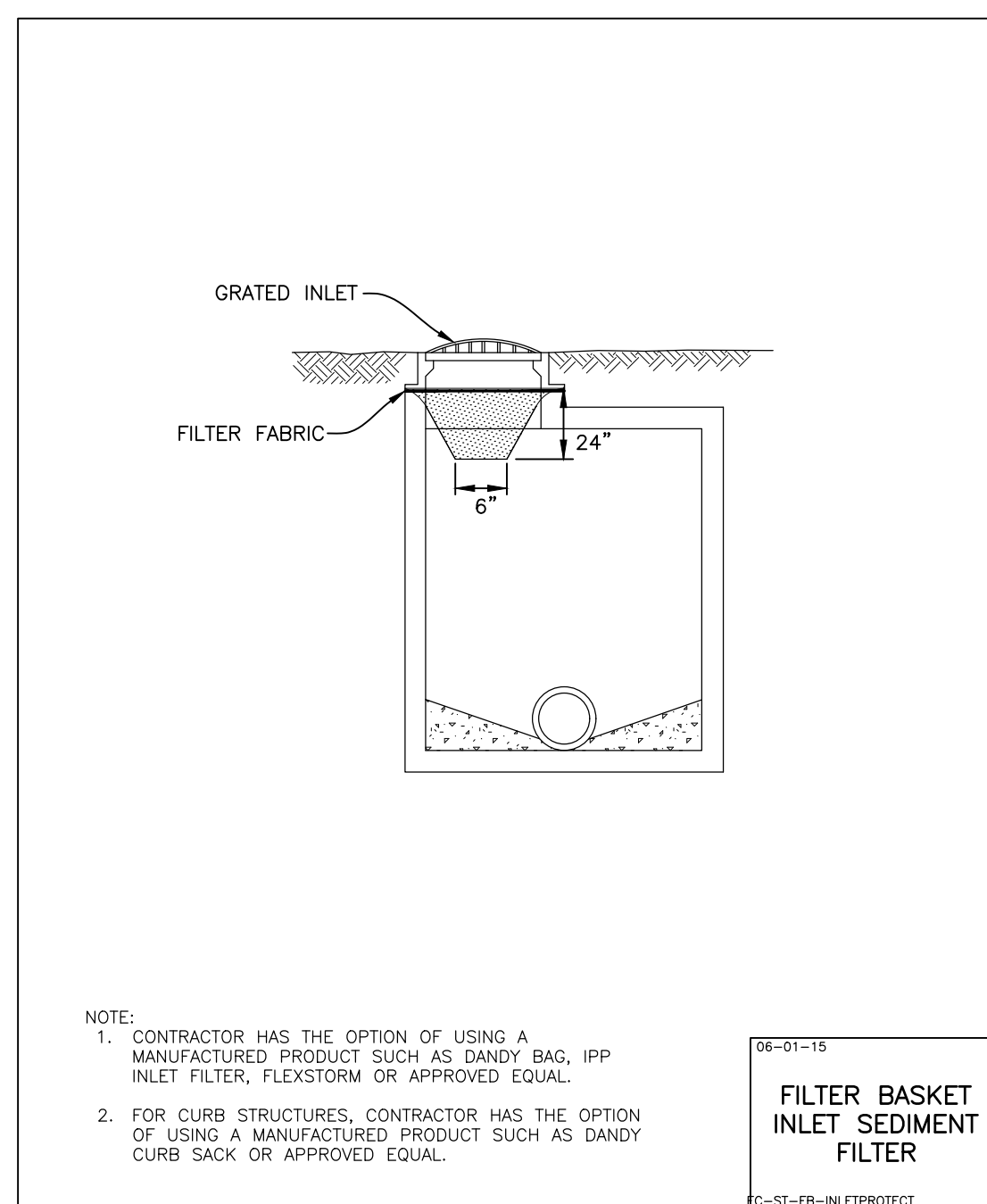
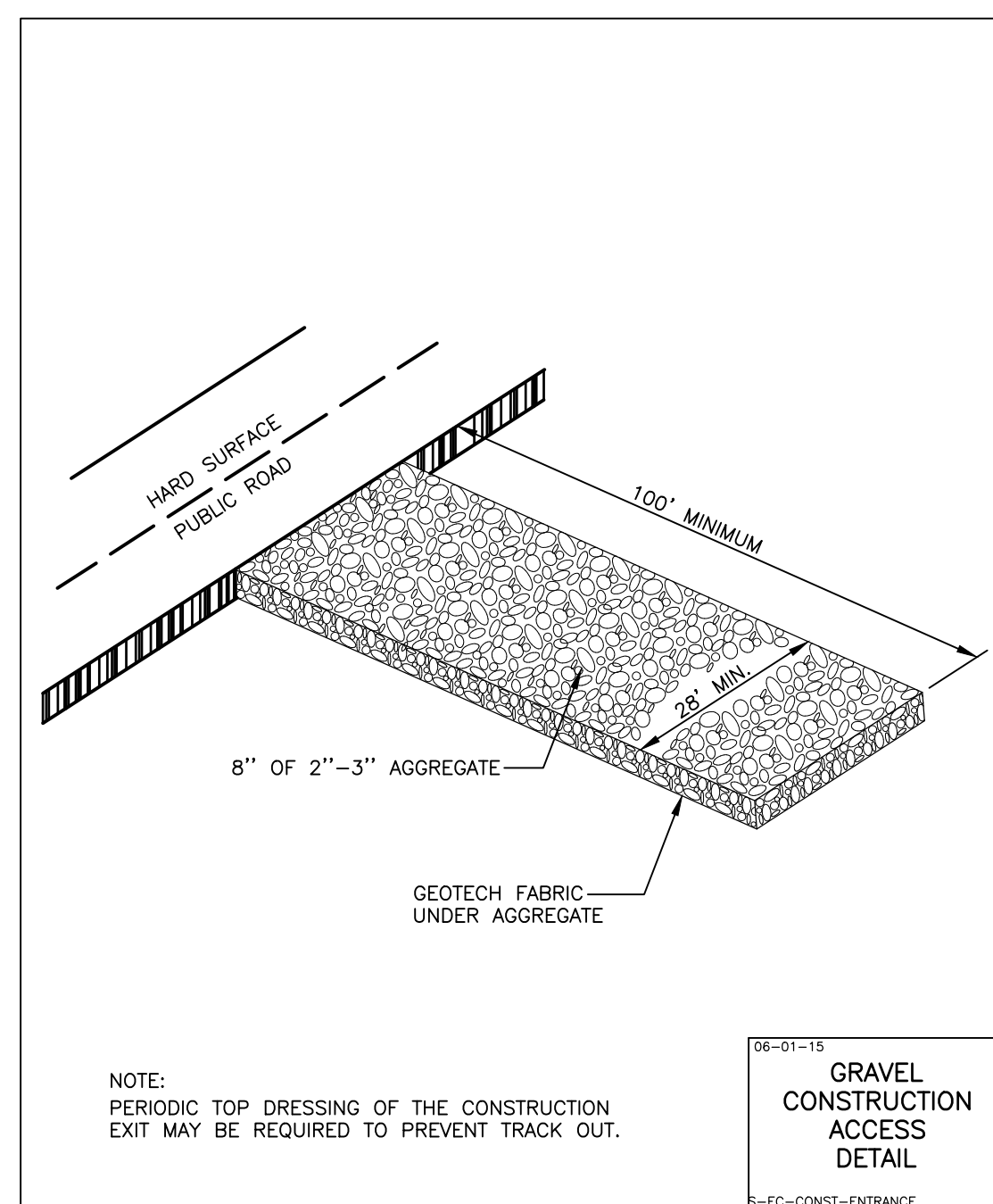
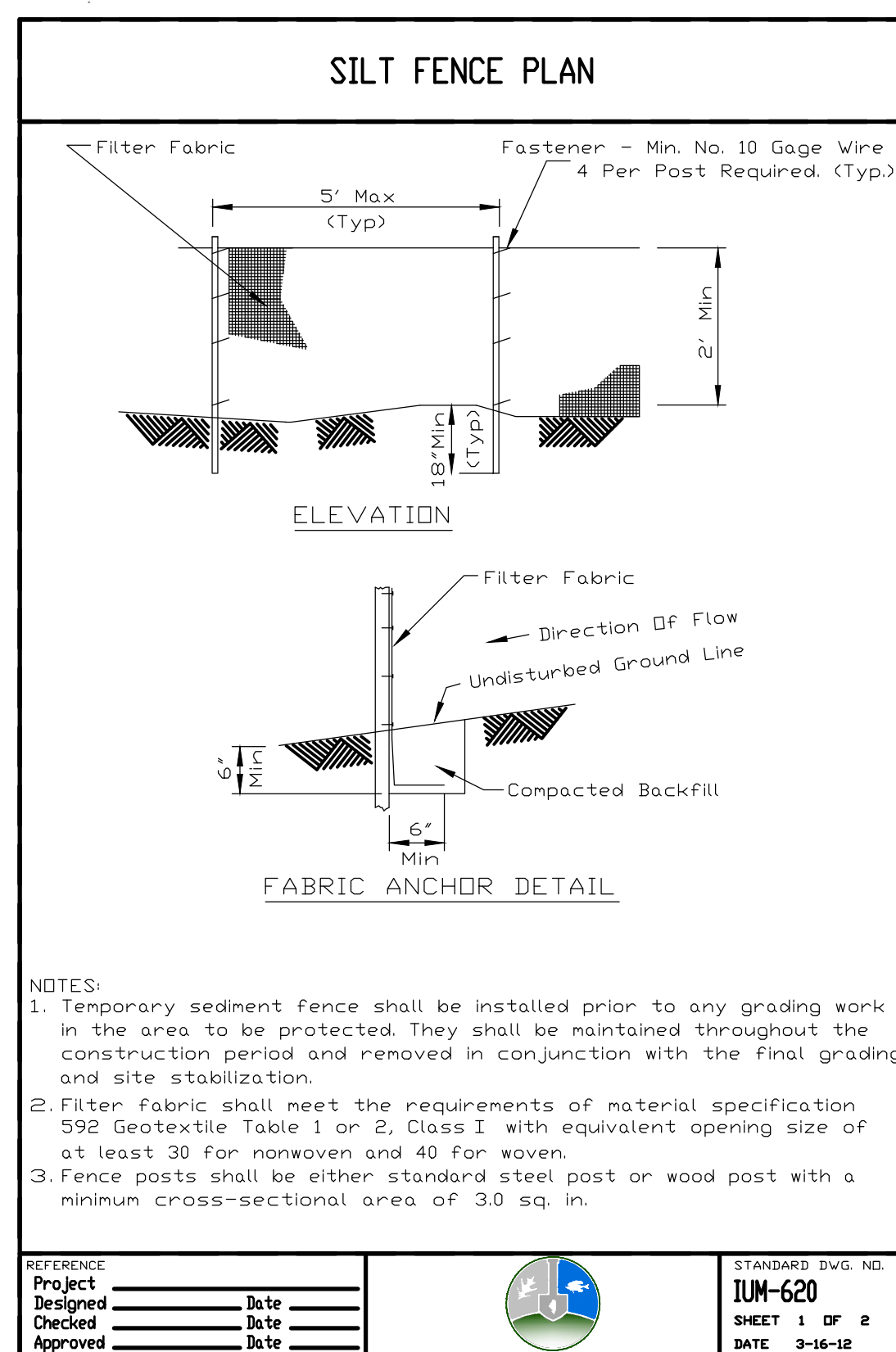
1. INSTALL SILT FENCE AT LOCATIONS AS INDICATED ON THE PLANS.
2. PROVIDE STABILIZED CONSTRUCTION ENTRANCE.
3. CONSTRUCT TEMPORARY SEDIMENT TRAPS.
4. STRIP EXISTING TOPSOIL FROM PROPOSED LIMITS OF DISTURBANCE AND STOCKPILE WHERE SHOWN ON PLANS.
5. PROVIDE SILT FENCE AROUND THE BASE OF THE STOCKPILES.
6. CUT AND FILL SITE TO PLAN SUB-GRADE.
7. CONSTRUCT UNDERGROUND IMPROVEMENTS, i.e. SANITARY SEWER WATERMAIN AND STORM SEWER**, ETC.
8. CONSTRUCT PAVEMENT IMPROVEMENTS PER PLAN.
9. COMPLETE CONSTRUCTION OF SITE WITH PERMANENT STABILIZATION.
10. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.

** INSTALL INLET PROTECTION AROUND DRAINAGE STRUCTURES AS CONSTRUCTED.

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TROUTMAN AND DAMS - LOT 5 VILLAGE OF ROMEOVILLE, ILLINOIS SOIL EROSION AND SEDIMENT CONTROL PLAN	
PROJ. MGR.: <u>BDP</u> PROJ. ASSOC.: <u>CAS</u> DRAWN BY: <u>KRK</u> DATE: <u>05-04-18</u> SCALE: <u>1"=30'</u>	SHEET 6 OF 8 TAD.RVL01



SHOULD A CONFLICT ARISE BETWEEN MANHARD
DETAILS AND THE VILLAGE DETAILS, THE
VILLAGE DETAILS SHALL TAKE PRECEDENCE.



Final Acceptance and Testing of Sanitary Sewer

Before final acceptance, the sanitary sewers shall be tested in accordance with Section 31-1.11 of the "Standard Specifications for Water and Sewer Main Construction in Illinois". Specifically, all pipelines constructed of flexible materials shall be subject to air infiltration tests, televising test, and deflection test. The deflection test shall be performed no sooner than thirty (30) days of the backing operation and shall consist of inflating the pipeline with air to a maximum ring deflection. Maximum ring deflection of the pipeline under load shall be limited to five (5) percent of the internal pipe diameter. All pipe exceeding this deflection shall be considered to have reached the limit of its serviceability and shall be re-laid or replaced by the developer. Deflection testing shall be accomplished by pulling a mandrel, sphere, or pin-type "go / no-go" device, with a diameter equal to ninety five (95) percent of the anticipated inside diameter of the sewer, through the pipeline. The mandrel shall be constructed of steel having a diameter of eight (8) inches or greater shall be televised. Copies of all video tapes must be submitted to the Village of Romeoville.

Vacuum Testing shall be carried out immediately after assembly and prior to backfilling of manholes that are up to seventy-two (72) inches in diameter. All lift holes shall be plugged with a non-shrink grout, or rubber plug. The manhole frame and adjusting rings and chimney seals shall be in place before testing. No grout shall be placed in the horizontal joints. All pipes entering the manhole shall be plugged, taking care to securely brace the plugs from being drawn into the manhole with the vacuum testing. Vacuum testing shall test all manholes for leakage. A vacuum of ten (10) inches of mercury shall be placed on the manhole and the time measured for the vacuum to drop to nine (9) inches of mercury. The vacuum drop shall not exceed the requirements shown in Table 1 of ASTM C1244-02. If testing fails, developer shall seal all leaks and retest until acceptable. The testing shall be completed prior to backfilling (whenever possible) so that any leaks can be found and fixed externally, and to give the horizontal manhole joints an opportunity to tighten.

Flow Monitoring prior to Acceptance

The developer will be required to monitor the flowrate from the site for a period of two months (encompassing at least two major storm events) to identify any excessive inflow/infiltration occurring in the system. The data must be submitted to the Village of Romeoville prior to acceptance of the public improvements.

MANHARD CONSULTING, LTD.
STANDARD SPECIFICATIONS

GENERAL CONDITIONS

CONTRACTOR acknowledges and agrees that the use and reliance of these Plans and Specifications is sufficient consideration for CONTRACTOR's covenants stated herein.

DEFINITION OF TERMS

- "CLIENT" shall mean Troutman & Dams, LLC, which is the person or entity with whom Manhard Consulting, Ltd. has contracted with to prepare Civil Engineering PLANS and SPECIFICATIONS.
- "ENGINEER" shall mean Manhard Consulting, Ltd., a Civil Engineering consultant on the subject project.
- "PLANS and SPECIFICATIONS" shall mean the Civil Engineering PLANS and SPECIFICATIONS prepared by the ENGINEER, which may be a part of the contract documents for the subject project.
- "CONTRACTOR" shall mean any person or entity performing any work described in the PLANS and SPECIFICATIONS.
- "JURISDICTIONAL GOVERNMENTAL ENTITY" shall mean any municipal, county, state or federal unit of government from whom an approval, permit and/or review is required for any aspect of the subject project.

INTENT OF THE PLANS AND SPECIFICATIONS

The intent of the PLANS and SPECIFICATIONS is to set forth certain requirements of performance, type of equipment and structures, and standards of materials and construction. They may also identify labor and materials, equipment and transportation necessary for the proper execution of the work but are not intended to be infinitely determined so as to include minor items obviously required as part of the work. The PLANS and SPECIFICATIONS require new material and equipment unless otherwise indicated, and to require complete performance of the work in spite of omissions of specific references to any minor component part. It is not intended, however, that materials or work not covered by or properly inferred from any heading, branch, class or trade of the SPECIFICATIONS shall be supplied unless distinctly so noted. Materials or work described in words, which so applied have a well-known technical or trade meaning, shall be held to refer to such recognized standards.

INTERPRETATION OF PLANS AND SPECIFICATIONS

- The CLIENT and/or CONTRACTOR shall promptly report any errors or ambiguities in the PLANS and SPECIFICATIONS to the ENGINEER. Questions as to meaning of PLANS and SPECIFICATIONS shall be interpreted by the ENGINEER, whose decision shall be final and binding on all parties concerned.
- The ENGINEER will provide the CLIENT with such information as may be required to show revised or additional details of construction.
- Should any discrepancies or conflicts on the PLANS or SPECIFICATIONS be discovered either prior to or after award of the contract, the ENGINEER's attention shall be called to the same before the work is begun thereon and the proper corrections made. Neither the CLIENT nor the CONTRACTOR may take advantage of any error or omissions in the PLANS and SPECIFICATIONS. The ENGINEER will provide information when errors or omissions are discovered.

GOVERNING BODIES

All works herein proposed shall be completed in accordance with all requirements of any JURISDICTIONAL GOVERNMENTAL ENTITY, and all such pertinent laws, directives, ordinances and the like shall be considered to be a part of these SPECIFICATIONS. If a discrepancy is noted between the PLANS and SPECIFICATIONS and the requirements of any JURISDICTIONAL GOVERNMENTAL ENTITY, the CLIENT and/or the CONTRACTOR shall immediately notify the ENGINEER in writing.

LOCATION OF UNDERGROUND FACILITIES AND UTILITIES

When the PLANS and SPECIFICATIONS include information pertaining to the location of existing underground facilities and utilities (including but not limited to water mains, sanitary sewers, storm sewers, electric, telephone, gas and cable TV lines), such information represents only the opinion of the ENGINEER as to the approximate location and elevation of such facilities and utilities. At the locations where detailed positions of these facilities and utilities become necessary to the new construction, including all points of connection, the CONTRACTOR shall furnish all labor and tools to verify or definitely establish the horizontal location, elevation, size and material (if appropriate) of the facilities and utilities. The CONTRACTOR shall notify the ENGINEER at least 48 hours prior to construction if any discrepancies in existing utility information or conflicts with existing utilities exist. The ENGINEER assumes no responsibility whatever with respect to the sufficiency or accuracy of the information shown on the PLANS and SPECIFICATIONS relative to the location of underground facilities and utilities, nor the manner in which they are removed or adjusted.

It shall be the CONTRACTOR's responsibility prior to construction, to notify all Utility Companies of the intent to begin construction and to verify the actual location of all such facilities and utilities. The CONTRACTOR shall also obtain from the respective Utility Companies the working schedules for removing or adjusting these facilities.

UNSATURABLE SOILS

The PLANS have been prepared by the ENGINEER based on the assumption that all soils on the project are suitable to support the proposed improvements shown. The CLIENT or CONTRACTOR shall immediately notify the ENGINEER if he discovers or encounters an obstruction that prevents the installation of the improvement according to the line and grades shown on the PLANS.

PROTECTION OF TREES

All trees that are not to be removed shall be protected from damage. Trees shall not be removed unless requested to do so in writing by the CLIENT.

NOTIFICATION OF OWNERS OF FACILITIES AND UTILITIES

The CONTRACTOR shall notify all applicable Jurisdictional Governmental Entities or utility companies, i.e., water, sewer, electric, telephone, gas and cable TV prior to beginning any construction so that said entity or company can establish the location and elevation of underground pipes, conduits or cables adjoining or crossing proposed construction.

TRAFFIC CONTROL

The CONTRACTOR shall provide when required by any JURISDICTIONAL GOVERNMENTAL ENTITY, all signs, equipment, and personnel necessary to provide for safe and efficient traffic flow in all areas where the work will interrupt, interfere or cause to change in any form, the conditions of traffic flow that existed prior to the commencement of any portions of the work. The CLIENT may, at his discretion, require the CONTRACTOR to furnish traffic control under these or other circumstances where in his opinion it is necessary for the protection of life and property. Emergency vehicle access shall be maintained at all times. Unless authorized by the CLIENT or CLIENT's construction representative, all existing access points shall be maintained at all times by the CONTRACTOR. The need for traffic control shall be anticipated by the CLIENT.

WORK AREA

The CONTRACTOR, his agents and employees and their employees and all equipment, machinery and vehicles shall confine their work within the boundaries of the project or work area specified by the CLIENT. The CONTRACTOR shall be solely liable for damage caused by him or his agents and employees and their equipment, machinery and vehicles on adjacent property or areas outside designated work areas.

UTILITY POLES

It shall be the responsibility of the CONTRACTOR to arrange for the relocation or bracing of existing utility poles that may be within the working limits of the contract. It is expressly understood that all work and costs connected with the maintenance of these utility poles, their temporary relocations, etc., shall be the responsibility of the CLIENT or the CONTRACTOR.

RESTORATION

It is the intent of these SPECIFICATIONS that clean-up and final restoration shall be performed immediately upon completion of each phase of the work, both inside and outside the Project, or when so directed by the CLIENT so that these areas will be restored as nearly as possible to their original condition or better, and shall include but not be limited to, restoration of maintained lawns and rights-of-way, roadways, driveways, sidewalks, ditches, bushes, hedges, trees, shrubs, fences, mailboxes, sewers, drain tiles, water mains, etc.

CLEANING UP

The CONTRACTOR shall at all times keep the premises free from accumulations of waste material or rubbish caused by his employees or work, and at the completion of the work he shall remove all his rubbish, tools, scaffolding and surplus materials and shall leave his work "broom clean" or its equivalent, unless more exactly specified.

ROAD CLEANING

The CONTRACTOR shall maintain roadways adjoining the project site free from mud and debris at all times. If mud and/or debris is carried onto the roadways from vehicles entering onto the highway from either the CONTRACTOR's trucks, his employees' vehicles, or his material suppliers, the CONTRACTOR shall immediately remove said mud and/or debris.

SAFETY AND PROTECTION

The CONTRACTOR shall be solely and completely responsible for the conditions of the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours. The CONTRACTOR shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss, and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR's duties and responsibilities for safety and for protection of the work shall continue until such time as all work is completed and the CLIENT has notified CONTRACTOR that the work is acceptable. The duties of the ENGINEER do not include review of the adequacy of either the CONTRACTOR's or the general public's safety in, on, or near the construction site.

HOLD HARMLESS

To the fullest extent permitted by law, any CONTRACTOR, material supplier or other entity by use of these plans and specifications hereby waives any right of contribution and agrees to indemnify, defend, save and hold harmless the CLIENT and ENGINEER and its agents, employees and consultants from and against all manner of claims, causes, causes of action, damages, losses and expenses, including but not limited to, attorneys' fees arising out of, resulting from or in connection with the performance of any work, pursuant to or with respect to these plans and specifications. However, this indemnity shall not be construed to indemnify ENGINEER, its consultants, agents or employees against its own negligence.

Claims, damages, losses and expenses as these words are used in the Agreement shall mean and include, but not be limited to (1) injury or damage occurring by reason of the failure of or use or misuse of any hoist, rigging, blocking, scaffolding or any and all other kinds of items of equipment, whether or not the same be owned, furnished or loaned by any party or entity, including any contractor; (2) all attorneys' fees and costs incurred in bringing an action to enforce the provisions of this indemnity; (3) costs for time expended by the indemnified party and its employees, at its usual rates plus costs of travel, long distance telephone and reproduction of documents and (4) consequential damages.

In any and all claims against the CLIENT or ENGINEER or any of their agents or employees and consultants by any party, including any employee of the CONTRACTOR or any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount of type of damages, compensation or benefits payable by or for the CONTRACTOR or any Subcontractor under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts or any insurance maintained by CONTRACTOR or any Subcontractor or any other party.

INSURANCE

Any party using or relying on these plans, including any contractor, material supplier, or other entity shall obtain, (prior to commencing any work) general public liability insurance insuring against all damages and claims for any bodily injuries, death or property damage arising out of any work, including the construction work provided for in these plans, and shall name the CLIENT and ENGINEER and its consultants, agents and representatives as additional insureds under such insurance policy; provided that utility information or conflicts with existing utilities exist. The ENGINEER assumes no responsibility whatever with respect to the sufficiency or accuracy of the information shown on the PLANS and SPECIFICATIONS relative to the location of underground facilities and utilities, nor the manner in which they are removed or adjusted.

Any party using or relying on these plans, including any contractor, material supplier, or other entity shall obtain, (prior to commencing any work) general public liability insurance insuring against all damages and claims for any bodily injuries, death or property damage arising out of any work, including the construction work provided for in these plans, and shall name the CLIENT and ENGINEER and its consultants, agents and representatives as additional insureds under such insurance policy; provided that utility information or conflicts with existing utilities exist. The ENGINEER assumes no responsibility whatever with respect to the sufficiency or accuracy of the information shown on the PLANS and SPECIFICATIONS relative to the location of underground facilities and utilities, nor the manner in which they are removed or adjusted.

THIRD PARTY BENEFICIARY

Manhard Consulting, Ltd., the ENGINEER, is intended to be a third party beneficiary of this willing agreement and requirement.

Note: These Specifications are for Northern Illinois.

DETAILED SPECIFICATIONS

I. DEMOLITION

The CONTRACTOR shall coordinate with respective utility companies prior to the removal and/or relocation of utilities. The CONTRACTOR shall coordinate with the utility company concerning portions of work which may be performed by the Utility Company's forces and any fees which are to be paid to the utility company for their services. The CONTRACTOR is responsible for paying for all fees and charges.

Should removal and/or relocation activities damage features intended to remain, the CONTRACTOR shall provide new materials/structures in accordance with the contract documents. Except for materials designed to be relocated on the plan, all other construction materials shall be new.

Prior to demolition occurring, all erosion control devices are to be installed.

All existing utility lines and conduits located under proposed buildings shall be removed and properly backfilled. All utility lines and conduits located under, on-site roads, parking lots or sidewalks shall be filled with a flowable backfill and end plugged. All existing structures shall be removed. All existing utility lines located under landscape areas shall be left in place and plugged at all structures.

The CONTRACTOR is responsible for demolition, removal and disposal (in a location approved by all JURISDICTIONAL GOVERNING ENTITIES) of all structures, pads, walls, furnaces, foundations, road, parking lots, drives, drainage structures, utilities, etc., such that the improvements shown on these plans can be constructed. All demolition work shall be in accordance with all applicable federal, state and local requirements. All facilities to be removed shall be undercut to suitable material and brought to grade with suitable compacted fill material per the specifications.

The CONTRACTOR is responsible for obtaining all permits required for demolition and disposal.

Electrical, telephone, cable, water, fire optic cable and/or gas lines needing to be removed shall be coordinated by the CONTRACTOR with the affected utility company. CONTRACTOR must protect the public at all times with fencing, barriers, enclosures, and other appropriate best management practices.

Continuous access shall be maintained for surrounding properties at all times during demolition.

All fire access lanes within the project area shall remain in service, clear of debris, and accessible for use by emergency vehicles.

The CONTRACTOR shall coordinate water main work with the Fire Department and the JURISDICTIONAL GOVERNING ENTITY to plan the proposed improvements and to ensure adequate fire protection is available to the facility and site throughout this specific work and through all phases of construction. CONTRACTOR shall be responsible for any required water main shut offs with the JURISDICTIONAL GOVERNING ENTITY during construction. Any costs associated with water main shut offs will be the responsibility of the CONTRACTOR and no extra compensation will be provided.

CONTRACTOR shall maintain all existing parking areas, sidewalks, drives, etc., clear and free from any construction activity and/or material to ensure easy and safe pedestrian and vehicular traffic to and from the site. CONTRACTOR shall coordinate/phase all construction activity within proximity of the building and utility interruptions with the facility manager to minimize disturbance and inconvenience to facility operations.

CONTRACTOR may limit saw-cut and pavement removal to only those areas where it is required as shown on these construction plans, however if any damage is incurred on any of the surrounding pavement, etc., the CONTRACTOR shall be responsible for ITS removal and repair.

Any existing wells encountered shall be exposed and sealed 3' below proposed finish grade by the CONTRACTOR in accordance with Section 920.120 (latest edition) of the Illinois Water Well Construction Code, Department of Public Health, and all applicable local rules and regulations. CONTRACTOR is responsible for obtaining all permits required by JURISDICTIONAL GOVERNMENTAL ENTITIES for abandoning existing wells.

Any existing septic tanks and grease traps encountered shall have all liquids and solids removed and disposed of by a licensed commercial hauler in accordance with JURISDICTIONAL GOVERNING ENTITY regulations, and the tank and grease traps shall then be filled with suitable materials or removed from the site and disposed of by the CONTRACTOR.

voids left by any item removed under any proposed building, pavement, walk, etc., or within 24" thereof shall be filled and compacted with suitable materials by the CONTRACTOR.

The CONTRACTOR shall be responsible for the disconnection of utility services to the existing buildings prior to demolition of the buildings.

Any material containing asbestos found within existing structures shall be removed from the site and disposed of off-site by the CONTRACTOR in accordance with County, State and Federal regulations.

CONTRACTOR shall develop and implement a daily program of dust control and shall submit and obtain JURISDICTIONAL GOVERNING ENTITY approval of dust control procedures prior to demolition of any structures. Modification of dust control procedures shall be performed by the CONTRACTOR to the satisfaction of the JURISDICTIONAL GOVERNING ENTITY as requested.

The CONTRACTOR shall coordinate all demolition with the JURISDICTIONAL GOVERNING ENTITY and CLIENT to ensure protection and maintenance of sanitary sewer and water utilities as necessary and to provide stormwater conveyance until new facilities are constructed, tested and placed into operation.

The locations of all existing utilities shown on this plan have been determined from the best information available and are given for the convenience of the CONTRACTOR and are not to be interpreted as the exact location, or as the only obstacles that may occur on the site. The ENGINEER assumes no responsibility for their accuracy. Prior to the start of any demolition activity, the CONTRACTOR shall notify the utility companies for location of existing utilities and shall verify existing conditions and proceed with caution around any anticipated features.

The CONTRACTOR is responsible for removing the existing irrigation system in the areas of proposed improvements. The contractor shall cap the existing irrigation system to remain such that the remaining system shall continue to function properly.

The parking lot shall be completed in sections such that it does not interrupt the facility operations. The CONTRACTOR shall coordinate with the construction manager for work to be performed.

II. EARTHWORK

STANDARDS

This work shall be completed in conformance with the applicable sections of the Standard Specifications for Road and Bridge Construction, Department of Transportation, State of Illinois, latest edition except as modified below.

SOIL BORING DATA

Copies of results of soil boring and reports, if such borings were taken by the CLIENT in the vicinity of the proposed construction site, should be made available by the CLIENT to the CONTRACTOR. These borings are presented for whatever purpose the CONTRACTOR chooses to make of them. The ENGINEER makes no representation or warranty regarding the number, location, spacing or depth of borings taken, nor of the accuracy or reliability of the information given in the results thereof.

Further, the ENGINEER does not assume responsibility for the possibility that during construction, the soil and groundwater condition may be different than indicated. Neither does the ENGINEER assume responsibility for variations of soil and groundwater at location between borings. The CONTRACTOR is required to make its own borings, explorations and observations to determine soil and groundwater conditions.

EARTHWORK CALCULATIONS AND CROSS SECTIONS

The CONTRACTOR understands that any earthwork calculations, quantities or cross sections that have been furnished by the ENGINEER are for information only and are provided without any guarantee by the CLIENT or ENGINEER whatsoever as to their sufficiency or accuracy. CONTRACTOR warrants that he has performed his own subsurface investigations as necessary and his own calculations and cross sections to determine site soil conditions and earthwork volumes. The ENGINEER makes no representation or guarantee regarding earthwork quantities or that the earthwork for this project will balance due to the varying field conditions, changing soil types, allowable construction to tolerances and construction methods that are beyond the control of the ENGINEER.

CLEARING, GRUBBING AND TREE REMOVAL

The site shall be cleared, grubbed, and trees and stumps removed where designated on the PLANS. Trees designated to remain shall be protected from damage.

TOPSOIL STRIPPING

Upon completion of demolition, clearing, grubbing and tree removal, all topsoil shall be stripped from under all buildings and pavements areas, and other areas necessary to complete the work. Topsoil stripped shall be placed in stockpiles in locations as designated by the CLIENT.

TOPSOIL RESPREAD

Upon completion of roadway and/or parking lot improvements and installation of underground utilities a minimum of six inches (6") of topsoil shall be respread over all unpaved areas which have been disturbed by earthwork construction, except building pads and other designated areas, which shall be kept free from topsoil.

SEEDING

Upon completion of topsoil respread, the CONTRACTOR shall apply seed and fertilizer to all respread areas in accordance with IDOT standards or as designated on landscape drawings and specifications provided by the CLIENT.

SODDING

Upon completion of topsoil respread, the CONTRACTOR shall install sod to all areas designated on the plans or as designated on the landscape drawings and specifications provided by the CLIENT.

EXCAVATION AND EMBANKMENT

Upon completion of topsoil stripping, all excavation and embankments shall be completed as shown on the PLANS. All suitable excavated materials shall be hauled, placed (moisture conditioned if necessary) and compacted in the embankment areas. The CONTRACTOR shall include all dewatering, temporary ditching and culverts necessary to complete the excavation and embankment.

Specifically included in the scope of Excavation and Embankments is grading and shaping of all cut or fill areas including swales and ditches; handling of sewer spoil, etc., and all work required to provide positive drainage at the end of each working day and upon completion of a section.

The CONTRACTOR shall be responsible for the excavation of all swales and ditches and for the excavation or filling of the roads, building pads and parking lots within the work limits to lines & grades shown on the plans. He shall be responsible for obtaining compaction in accordance with the minimum values listed in the table below for all embankments unless more stringent values are listed in the soils report or are approved by the CLIENT, and to use any method approved by the CLIENT necessary to obtain this compaction (i.e., soil fabric or any undercutting that may be required).

Type Material	Percent Compaction		Pavement & Floor Slabs		Grass Areas
	Standard	Modified Proctor	Standard	Modified Proctor	
Sandy Soils		95%		90%	
Clayey Soils		95%		90%	

The CONTRACTOR shall notify the CLIENT if proper compaction cannot be obtained so that the CLIENT may determine what remedial measures may be needed.

A soils testing firm employed by the CLIENT shall determine which soils are unsuitable. Materials in their natural state being defined as unsuitable that would be suitable material if moisture conditioned, shall be conditioned by the CONTRACTOR and used as suitable embankment material or hauled from the site.

For purposes of definition, unsuitable material shall be as follows unless determined otherwise by the Soils Engineer:

- Any soil whose optimum moisture content exceeds 25%.
- Any cohesive soil with an unconfined compressive strength of 1.5 tons per square foot or less.
- Any soil whose silt content exceeds 60% by weight.
- Any soil whose maximum density is less than 100 pounds per cubic foot.
- Any soil containing organic, deleterious, or hazardous material.

Upon completion of excavation and shaping of the water retention areas intended to maintain a permanent pool of water, all silt seams and granular or sandy soils shall be removed to a minimum depth of three feet below the subgrade and replaced with an impermeable clay liner, including adjacent to and under storm sewer inlets and outlets. It is the intent of these PLANS and SPECIFICATIONS that the CONTRACTOR shall prepare the lake bottoms, side slopes, and compaction thereof such that the lakes will maintain the proposed normal water level and that leakage does not exceed 1/2 inch per week.

Ditches and swales are to be excavated to the lines and grades indicated on the PLANS. All suitable materials excavated from the ditches shall be used in construction of the embankments.

The CONTRACTOR shall notify the CLIENT immediately upon encountering groundwater during excavation. If in the opinion of the CLIENT or the JURISDICTIONAL GOVERNING ENTITY this condition necessitates the installation of perforated drain tile bedded in washed gravel or open storm sewer joints wrapped with fabric, the CONTRACTOR shall install the same.

During excavation and embankment, grades may be adjusted to achieve an overall site working balance. The CONTRACTOR shall cooperate fully with the CLIENT in adjustment of grades, construction methods and placement of material to meet the above goals and shall immediately advise CLIENT if he believes that the earthwork will not balance.

It is the intent of these PLANS that storm water falling on the site be diverted into sedimentation / lake / detention basins during construction. The CONTRACTOR shall construct and maintain any temporary ditches or swales that are necessary to accomplish this prior to beginning mass excavation.

EROSION CONTROL

Suitable erosion control practices shall be maintained by the CONTRACTOR in accordance with Illinois Urban Manual and all applicable Soil Erosion and Sedimentation Control ordinances and the PLANS.

UNDERCUTTING DURING EARTHWORK

If the subgrade cannot be dried adequately by dicing as outlined above for placement of material to planned grades and if the CLIENT determines that the subgrade does not meet the standards set forth above, the CLIENT may require undercutting.

MISCELLANEOUS CONTRACT ITEMS

The following items may be required at the CLIENT's option, as indicated on the PLANS or as required by the JURISDICTIONAL GOVERNING ENTITY:

(1) GEOTEXTILE FABRIC

Geotextile fabric or approved equal shall be provided in areas as designated by the CLIENT, as indicated on the PLANS or as required by the JURISDICTIONAL GOVERNING ENTITY where proper compaction of embankments over existing soft soils is not possible. Geotextile fabric shall meet the material specifications of and shall be installed in accordance with the above standards.

(2) EROSION CONTROL BLANKET

Erosion control blanket or approved equal shall be provided in areas as designated by the CLIENT, as indicated on the PLANS or as required by the JURISDICTIONAL GOVERNING ENTITY for the stabilization of disturbed areas. Erosion control blanket shall meet the material specifications of and shall be installed in accordance with the above standards, the Illinois Urban Manual and the details shown on the PLANS.

III. UNDERGROUND IMPROVEMENTS

A. GENERAL

STANDARDS

All underground improvements shall be constructed and tested in accordance with the Standard Specifications for Water and Sewer Construction in Illinois and Standard Specifications for Road and Bridge Construction, Department of Transportation, State of Illinois, latest edition. In the event of conflicting guidelines, the more restrictive shall govern.

SELECTED GRANULAR BACKFILL

Selected Granular Backfill shall be required for all sewer and water main trenches lying under existing or proposed streets, driveways, parking lots and within 24" thereof, and where noted on the PLANS. All materials used in such trenches shall be in accordance with the above standards.

MANHOLES, CATCH BASIN, INLETS & VALVE VAULTS

All Manholes, Catch Basins, Inlets, and Valve Vaults shall be constructed of reinforced precast concrete ring construction with tongue and groove joints in conformance with the latest revision of ASTM designation C-478. All joints between sections and frames (except sanitary manholes, see Section IIB Manholes, below) shall be sealed with mastic type bituminous jointing compound. CONTRACTOR shall remove all excess mastic on inside of structure and butter joints with mortar. Manholes are to have offset cones except that no cone shall be used on storm manholes 6'-0" deep or less in which case a reinforced concrete flat top section shall be used, and Valve Vaults shall have conic cones. Only concrete adjustment rings will be permitted where necessary and shall be limited to two adjustment rings totaling not more than 8" in height. All manholes and catch basin steps shall be copolymer polypropylene with continuous 1/2" steel reinforcement as manufactured by MA Industries, or approved equal.

*AUGER/BORING AND CASING - INTENTIONALLY OMITTED

*AUGER (OPEN BORE) - INTENTIONALLY OMITTED

HORIZONTAL AND VERTICAL SEPARATION OF WATER AND SEWER MAINS

Horizontal and vertical separation of water and sewer mains shall be in accordance with Standard Specifications for Water and Sewer Construction in Illinois Section 41-2.01A and 41-2.01B and Standard Drawing 18, 19, 20, 21, 22, 23 and 24.

STRUCTURE ADJUSTMENTS

Structures shall be adjusted to the finished grade as shown on PLANS.

B. SANITARY SEWERS AND APPURTENANCES

SANITARY SEWER PIPE

Sanitary sewer pipe including building services, shall conform to the following:

- Polyvinyl Chloride (PVC) Sewer Pipe shall conform to ASTM D3034 (4-inch thru 15-inch) or ASTM F679 (18-inch thru 48-inch) minimum SDR 26 with flexible elastomeric seal gasket gasketed joints conforming to ASTM D3212 and F477.
- Ductile Iron Sewer Pipe shall conform with ANSI/AWWA C151/A21.51 Class 50, cement lined with push on type joints conforming to ANSI/AWWA C111/A21.11.

Sanitary sewers shall include bedding and backfilling.

MANHOLES

Manholes shall be constructed in conformance with Section IIA Manholes, etc. above. The concrete base and bottom section shall be constructed of precast reinforced concrete monolithically cast sections including benches, pipe connection and invert flow lines. Manhole frame and lids shall be East Jordan 102223 with lids inscribed "SANITARY" and "VILLAGE OF ROMEOVILLE" with recessed pick holes. Manhole joints shall be externally wrapped with MacWrap or approved equal. Rubber gasketed bowls are required for the main at the manhole wall. A 10" elastomeric band (chimney seal) shall be installed extending from the manhole top to the manhole frame as shown on detail. Manholes shall include steps, frame & grate, bedding, and trench backfill.

An External Adaptor Seal shall be used on all sanitary manholes. One vendor of this seal is Adaptor Inc.

All sanitary manhole castings, adjusting rings and manhole section shall be set in butyl rope or approved equal. Each manhole cone and barrel section joint shall also be externally sealed with a 6" wide sealing band of rubber and mastic. The band shall have an outer layer of rubber or polyethylene with an under layer of rubberized mastic meeting the requirements of ASTM C-877.02 (Standard Specification for External Sealing Bands for Concrete Pipe, Manholes, and Precast Box Sections). Pipe connection to new and existing manholes through openings (cast or core-drilled) shall be provided with a flexible rubber watertight connector conforming to ASTM C-923 (Standard Specifications for Resilient Connections Between Reinforced Concrete Manhole Structures and Pipes).

Internal chimney seals shall be EnviroSeal AR350 or Raven 581 brush grade, a 100% solids, fluid applied polyuria elastomer repair material as applied per the following: for surface preparation, surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 7 days and no frost or wet conditions can be present during installation. Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Sleet-Seam FT910. After ensuring that all surfaces are clean the chimney seal coating material shall be applied evenly by spraying over the entire chimney seal area including the frame joint area and the vertical rise of the manhole cone including all extensions to the chimney area. Application shall be made in accordance with manufacturer's recommendations and film shall be applied at a wet mils spreading rate of between 100 to 125 mils. The final internal chimney seal shall pass visual inspection and be completely free of pinholes or voids.

FOUNDATION, BEDDING AND HAUNCHING

Foundation, Bedding and Haunching shall be wet coarse aggregate or moist fine aggregate in accordance with the above standards and placed as shown on the detail.

TESTING

Sanitary sewers shall be air tested and tested for deflection in accordance with the requirements of Section 31-1.12 "TESTING AND INSPECTION FOR ACCEPTANCE OF SANITARY SEWERS" of the Standard Specifications for Water and Sewer Construction in Illinois or the JURISDICTIONAL GOVERNING ENTITY, whichever is more restrictive. In addition, a televised inspection of the completed sanitary sewers shall be conducted and a copy of the videotape and report furnished to the JURISDICTIONAL GOVERNING ENTITY.

All sanitary manholes are to be tested for water tightness in accordance with ASTM C969 "Standard Practice for Infiltration and Exfiltration Acceptance Testing of Installed Precast Concrete Pipe Sewer Lines", or ASTM C1244 "Standard Test Method for Concrete Sewer Manholes by the Negative Pressure (Vacuum) Test".

*SERVICES - INTENTIONALLY OMITTED

*RISERS - INTENTIONALLY OMITTED

*DROP MANHOLE CONNECTIONS - INTENTIONALLY OMITTED

*SANITARY SEWER FORCE MAIN - INTENTIONALLY OMITTED

TELEVISION INSPECTION

Upon completion of construction a television inspection of the sanitary sewer system shall be performed on all portions of the sewer if required by the JURISDICTIONAL GOVERNING ENTITY. Videotapes and written report of all television inspections shall be provided to the CLIENT. The form of report and type and format of the videotape shall be approved by the JURISDICTIONAL GOVERNING ENTITY.

All sewers and appurtenances shall be cleaned prior to inspection and testing required by this section.

All defects and corrective work required as the result of television inspection shall be performed by the CONTRACTOR without delay. All dips, cracks, leaks, improperly sealed joints and damaged grades and alignment shall be repaired by removing and replacing the involved sections of pipe. Upon completion thereof, the sewer shall be retested and such further inspection made as may appear warranted by the CLIENT.

MISCELLANEOUS

All floor drains shall be connected to the sanitary sewer.