

WATERMAIN SPECIAL NOTES:

(IN COMPLIANCE WITH 35 ILL. Adm. CODE 653.119)

WATER MAINS AND WATER SERVICE LINES SHALL BE PROTECTED FROM SANITARY SEWERS, STORM SEWERS, COMBINED SEWERS, HOUSE SEWER SERVICE CONNECTIONS AND DRAINS AS FOLLOWS:

A. WATER MAINS:

1) HORIZONTAL SEPARATION:

- A) WATER MAINS SHALL BE LAID AT LEAST TEN FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED DRAIN, STORM SEWER, SANITARY SEWER, COMBINED SEWER OR SEWER SERVICE CONNECTION.
- B) WATER MAINS MAY BE LAID CLOSER THAN TEN FEET TO A SEWER LINE WHEN:
- I) LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF TEN FEET;
- II) THE WATER MAIN INVERT IS AT LEAST 18 INCHES ABOVE THE CROWN OF THE SEWER; AND
- III) THE WATER MAIN IS EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON AN UNDISTURBED EARTH SHELF LOCATED TO ONE SIDE OF THE SEWER.

- C) BOTH THE WATER MAIN AND DRAIN OR SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE, ASBESTOS-CEMENT PRESSURE PIPE, PRESTRESSED CONCRETE PIPE, OR PVC PIPE MEETING THE REQUIREMENTS OF SECTION 653.111 WHEN IT IS IMPOSSIBLE TO MEET (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 TEN 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) BOTH THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF SLIP-ON MECHANICAL JOINT CAST OR DUCTILE IRON PIPE, ASBESTOS-CEMENT PRESSURE PIPE, PRESTRESSED CONCRETE PIPE, OR PVC PIPE MEETING REQUIREMENTS OF SECTION 653.111 WHEN:

- I) IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS
- II) THE WATER MAIN PASSES UNDER A SEWER OR DRAIN.

- 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 A SEWER. SUPPORT THE SEWER OR DRAIN LINES TO PREVENT SETTLING AND BREAKING THE WATER MAIN.

- D) CONSTRUCTION SHALL NOT EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE NORMAL DISTANCE FROM THE WATER MAIN TO THE SEWER OR DRAIN LINE IS AT LEAST TEN FEET.

B) WATER SERVICE LINES:

- 1) THE HORIZONTAL AND VERTICAL SEPARATION BETWEEN WATER SERVICE LINES AND ALL STORM SEWERS, SANITARY SEWERS, COMBINED SEWERS OR ANY DRAIN OR SEWER SERVICE CONNECTION SHALL BE THE SAME AS WATER MAIN SEPARATION DESCRIBED IN (A) ABOVE.

- 2) WATER PIPE DESCRIBED IN (A) ABOVE SHALL BE USED FOR SEWER SERVICE LINES WHEN MINIMUM HORIZONTAL AND VERTICAL SEPARATION CANNOT BE MAINTAINED.

- C) SPECIAL CONDITIONS - ALTERNATE SOLUTIONS SHALL BE PRESENTED TO THE AGENCY WHEN EXTREME TOPOGRAPHICAL, GEOLOGICAL OR EXISTING STRUCTURAL CONDITIONS MAKE STRICT COMPLIANCE WITH (A) AND (B) ABOVE TECHNICALLY AND ECONOMICALLY IMPRACTICAL. ALTERNATE SOLUTIONS WILL BE APPROVED PROVIDED WATERTIGHT CONSTRUCTION STRUCTURALLY EQUIVALENT TO APPROVED WATER MAIN MATERIAL IS PROPOSED.

- D) WATER MAINS SHALL BE SEPARATED FROM SEPTIC TANKS, DISPOSAL FIELDS AND SEEPAGE BEDS BY A MINIMUM OF 25 FEET.

- E) WATER MAINS AND WATER SERVICE LINES SHALL BE PROTECTED AGAINST ENTRANCE OF HYDROCARBONS THROUGH DIFFUSION THROUGH ANY MATERIAL USED IN CONSTRUCTION OF THE LINE.

GENERAL NOTES:

- A. ALL EXTERIOR CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", AS ADOPTED BY THE STATE OF ILLINOIS, WITH LATEST SUPPLEMENT AND THE VILLAGE OF ROMEOVILLE STANDARDS.

- B. UNDERGROUND CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", LATEST DATE AND VILLAGE OF ROMEOVILLE STANDARDS.

- C. CONTRACTOR SHALL NOTIFY ALL UTILITIES, GAS, POWER, SEWER, WATER AND TELEPHONE PRIOR TO EXCAVATION SO ALL UTILITIES ARE LOCATED PROPERLY. CONTACT JULIE (1-800-892-0123) AND THE VILLAGE OF ROMEOVILLE.

- D. ELEVATIONS SHOWN ARE USGS.

- E. SAW CUT ALL ASPHALT AND CONCRETE BEFORE REMOVAL. CONTRACTOR DAMAGED ADJACENT PAVEMENT SURFACE OUTSIDE CONTRACT LIMITS SHALL BE RESTORED TO EXISTING CONDITION. CONTRACTOR DAMAGED CONCRETE APRONS AND CURBS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY ENGINEER.

- F. CONTRACTOR SHALL PROVIDE CA-6 TRENCH BACKFILL UNDER OR WITHIN THE ZONE OF INFLUENCE OF PAVED SURFACES.

- G. ALL PROOF-ROLLING SHALL BE DONE IN THE PRESENCE OF THE VILLAGE OF ROMEOVILLE.

- H. NOTIFY VILLAGE AND VILLAGE ENGINEER 2 WORKING DAYS PRIOR TO STARTING PROJECT. VILLAGE CONTACT:

MR. JONATHAN A. ZABROCKI, P.E.,
C/O VILLAGE OF ROMEOVILLE
615 ANDERSON DRIVE
ROMEOVILLE, IL 60446
(PHONE: 815-886-1870)

- I. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROVIDED IN ACCORDANCE WITH THE "STORMWATER POLLUTION PREVENTION PLAN" SHOWN ON SHEET C-33.

- J. WHEREVER A SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY SEWERS AND WATERMAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED ABOVE CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATERMAIN, THEN, WITHIN A DISTANCE OF 10 FEET ON EITHER SIDE OF THE WATERMAIN, THE SEWER PIPE SHALL BE CAST IRON, DUCTILE IRON OR AN APPROVED EQUIVALENT.

SPECIAL NOTES:

- I. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.

- II. EACH CONTRACTOR FOR EACH TRADE OR DIVISION SHALL CAREFULLY READ AND STUDY PLANS AND SPECIFICATIONS FOR ALL TRADES TO BE CERTAIN TO INCLUDE IN HIS BID ALL WORK TO BE DONE BY HIM; SHALL VISIT SITE TO DETERMINE ALL LOCAL CONDITIONS INCLUDING ABOVE AND UNDERGROUND CONSTRUCTION OF EVERY TYPE; SHALL CHECK ALL MEASUREMENTS ON JOB; SHALL REPORT ALL INTERFERENCES TO ENGINEER BEFORE WORK IS DONE. APPLICABLE REQUIREMENTS OF PLANS AND SPECIFICATIONS FOR ALL TRADES AND DIVISIONS APPLY TO ALL CONTRACTS. ALL WORK MUST FIT INTO AVAILABLE SPACE AND BE LOCATED TO FACILITATE REMOVAL, REPLACEMENT AND SERVICING WITH MODIFICATIONS AS REQUIRED AND AS APPROVED BY ENGINEER, WITHOUT INCREASE IN CONTRACT PRICE.

- III. CONTRACTOR SHALL FURNISH RECORD DRAWINGS IN ACCORDANCE WITH REQUIREMENTS OF THE VILLAGE OF ROMEOVILLE RECORD DRAWINGS CHECKLIST, ON DISKETTE IN AUTOCAD (dwg) FORMAT. CORRECTIONS TO SITE DESIGN, UTILITY PLACEMENT, AND ELEVATIONS MUST BE SHOWN ON DIGITAL DRAWINGS BY CROSSING OUT THE ORIGINAL DESIGN INFORMATION AND ADDING THE CHANGES MADE (REFER TO 8.11).

- IV. STORM WATER DETENTION VOLUME AFTER CONSTRUCTION MUST BE CALCULATED AND CERTIFIED BY A PROFESSIONAL ENGINEER.

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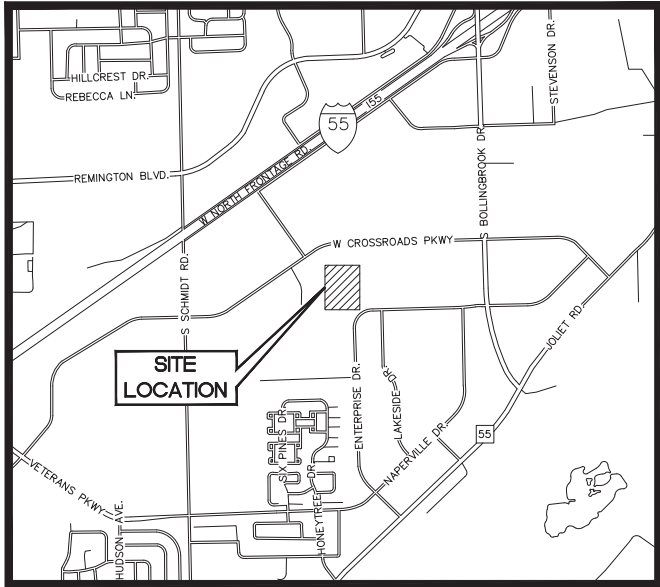
STATE OF ILLINOIS
WILL COUNTY

SITE IMPROVEMENTS

FOR:

1290 ENTERPRISE DR.

ROMEOVILLE, ILLINOIS



LOCATION MAP

NOT TO SCALE

JOB SITE BENCHMARK:

FINISH FLOOR @ MANDOOK ON
S. FACE OF BLDG.
ELEV. = 701.72 (NAVD88)

SITE DATA TABLE:

TOTAL SITE AREA = 262,180 SF = 6.02 AC

EXISTING IMPERVIOUS SURFACE AREA = 167,843 SF = 3.86 AC = 64.12%

PROPOSED IMPERVIOUS SURFACE AREA = 196,400 SF = 4.50 AC = 74.82%

PARKING SPACES:

CARS:

9.5' X 18'		
REG.	=	33
H.C.	=	2
TOTAL	=	35

TRAILER:

12' X 30'	=	97
12' X 60'	=	31
TOTAL	=	128

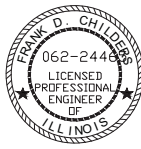
NOTE:

THE LOCATION OF EXISTING UNDERGROUND UTILITIES, SUCH AS WATER MAINS, SEWERS, GAS LINES, ETC., AS SHOWN ON THE PLANS, HAS BEEN DETERMINED FROM THE BEST AVAILABLE INFORMATION AND IS GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. HOWEVER, THE OWNER AND THE ENGINEER DO NOT ASSUME RESPONSIBILITY IN THE EVENT THAT DURING CONSTRUCTION, UTILITIES OTHER THAN THOSE SHOWN MAY BE ENCOUNTERED, AND THAT THE ACTUAL LOCATION OF THOSE WHICH ARE SHOWN MAY BE DIFFERENT FROM THE LOCATION AS SHOWN ON THE PLANS.

DRAINAGE CERTIFICATE

I, FRANK D. CHILDERS, 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.

Frank D Childers
FRANK D. CHILDERS, P.E. 0062-024465



PROFESSIONAL ENGINEERS CERTIFICATE

I, FRANK D. CHILDERS, A LICENSED PROFESSIONAL ENGINEER OF ILLINOIS, HEREBY CERTIFY THAT THIS TECHNICAL SUBMISSION WAS PREPARED UNDER MY PERSONAL DIRECTION FOR THE EXCLUSIVE USE OF THE CLIENT NOTED IN THE TITLE BLOCK. REPRODUCTION OR USE BY A THIRD PARTY IS STRICTLY PROHIBITED WITHOUT THE WRITTEN PERMISSION OF THE UNDERSIGNED.

DATED THIS 3rd DAY OF JULY A.D. 2019

Frank D Childers
ILLINOIS PROFESSIONAL ENGINEER NO. 0062-024465
MY LICENSE EXPIRES NOVEMBER 30, 2019

NOTE: UNLESS THIS DOCUMENT BEARS ORIGINAL SIGNATURE IN COLOR, IT IS NOT A VALID TECHNICAL SUBMISSION.

G&C #19-005

SHEET TITLE: COVER SHEET

DRAWN BY: DMC

CHECKED BY: FDC

LEGEND

EXISTING

PROPERTY LINE
EASEMENT LINE
FENCE
CONSTRUCTION FENCE
SILT FENCE
CURB AND GUTTER
REVERSE PITCH CURB AND GUTTER

OH
W
G

UTILITY PIPE TO BE REMOVED

STORM SEWER
SANITARY SEWER

CATCH BASIN
MANHOLE

TRENCH BACKFILL

WATER SHUT-OFF VALVE

FIRE HYDRANT

LIGHT STANDARD

WATER VALVE

CONCENTRIC REDUCER

SIGN

UTILITY POLE

ELECTRICAL BOS

TELEPHONE PEDISTAL

WHEEL STOP

DECIDUOUS TREE

PINE TREE

CONTOUR

SPOT GRADE

CURB ELEVATION

GUTTER ELEVATION

RIM ELEVATION

INVERT ELEVATION

BITUMINOUS PAVEMENT

MILLED EXISTING ASPHALT PAVEMENT

CONCRETE PAVEMENT

STONE

PROPOSED

FENCE
CONSTRUCTION FENCE
SILT FENCE
CURB AND GUTTER
REVERSE PITCH CURB AND GUTTER

W
G

UTILITY PIPE TO BE REMOVED

STORM SEWER
SANITARY SEWER

CATCH BASIN
MANHOLE

TRENCH BACKFILL

WATER SHUT-OFF VALVE

FIRE HYDRANT

LIGHT STANDARD

WATER VALVE

CONCENTRIC REDUCER

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UTILITY POLE

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DECIDUOUS TREE

PINE TREE

CONTOUR

SPOT GRADE

CURB ELEVATION

GUTTER ELEVATION

RIM ELEVATION

INVERT ELEVATION

BITUMINOUS PAVEMENT

MILLED EXISTING ASPHALT PAVEMENT

CONCRETE PAVEMENT

STONE

STANDARD ABBREVIATIONS

CI	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
CSP	CONCRETE SEWER PIPE
DIP	DUCTILE IRON PIPE
DIWM	DUCTILE IRON WATERMAIN
PVC	POLYVINYLCHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
VCP	VITRIFIED CLAY PIPE



Know what's below.
Call before you dig.



NEW FACILITY
1290 ENTERPRISE DR., ROMEOVILLE, IL

DESCRIPTION: VILLAGE REVIEW 09-10-19
DATE: 07-03-19

PROJECT NO: 15.120

SHEET NO:

C-1

VILLAGE OF ROMEOVILLE -- MINIMUM CHLORINATION STANDARDS:

- a. GAS CHLORINE MUST BE USED FOR DISINFECTION.
b. THE CHLORINATION CONTRACTOR MUST CALL 815-886-1870 A MINIMUM OF 24-HOURS IN ADVANCE TO SCHEDULE CHLORINATION.
c. ONLY VILLAGE OF ROMEOVILLE EMPLOYEES SHALL OPERATE WATER SYSTEM VALVES AND TUM ON/OFF SAMPLING WHIPS WHILE SAMPLES ARE BEING COLLECTED.
d. ALL CHLORINATION AND SAFETY EQUIPMENT MUST MEET OR EXCEED THE STANDARDS AND RECOMMENDATIONS SET BY THE CHLORINE INSTITUTE, INC.
e. THE CHLORINATOR MUST BE A LICENSED PLUMBER OR CERTIFIED ILLINOIS WATER OPERATOR WITH A MINIMUM OF 5 YEARS' EXPERIENCE WORKING WITH CHLORINE DISINFECTION OF WATER SUPPLY LINES.
f. THE CHLORINATION CONTRACTOR MUST HAVE TWO PEOPLE PRESENT TO CHLORINATE. ONE TO MONITOR THE CYLINDER AND ONE TO MONITOR IN THE FIELD.
g. THE CHLORINATION CONTRACTOR MUST BE BONDED AND INSURED, AND HAVE PROOF OF BOTH ON FILE WITH THE VILLAGE.
h. THE CHLORINATION CONTRACTOR MUST HAVE UPDATED 24-HOUR EMERGENCY PHONE NUMBERS ON FILE WITH THE VILLAGE.
i. THE CHLORINATION CONTRACTOR MUST COMPLY WITH STATE AND FEDERAL REGULATIONS REGARDING TRANSPORTATION AND HANDLING OF CHLORINE CYLINDERS:
• SHIPPING AND EMERGENCY PAPERS FOR EVERY JOB LOCATION
• PROOF OF INSURANCE FOR HAULING AND HANDLING CHLORINE GAS
• COMMERCIAL DRIVER'S LICENSE WITH HAZMAT ENDORSEMENT AND MEDICAL CARD
• COPY OF EMERGENCY RESPONSE GUIDEBOOK IN VEHICLE
• HAZMAT CERTIFICATE OF REGISTRATION
• HAZARDOUS MATERIALS PLACARD DISPLAYED ON VEHICLE
• CYLINDER STRAPPED UPRIGHT IN TRUCK
j. UNDER NO CIRCUMSTANCES WILL CHLORINE CONTRACTORS BE ALLOWED TO APPLY HEAT TO THE CHLORINE CYLINDER (I.E. HOT BATHS, PROPANE TORCHES, ETC.), WHILE THE CYLINDER IS BEING USED IT MUST BE IN A VERTICAL POSITION, AS WELL AS BEING AFFIXED TO A SOLID OBJECT.
k. PRIOR TO CHLORINATION, THE CHLORINATION CONTRACTOR MUST PROVIDE A DETAILED WRITTEN CHLORINATION AND FLUSHING PLAN TO THE VILLAGE FOR REVIEW AND WRITTEN APPROVAL.
l. AT ANY TIME, THE VILLAGE OR ITS AUTHORIZED REPRESENTATIVE MAY ASK FOR PROOF OF ANY OR ALL OF THE ABOVE INFORMATION. PLEASE CONTACT THE VILLAGE OF ROMEOVILLE PUBLIC WORKS DEPARTMENT (815-886-1870) WITH ANY QUESTIONS.

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 EXFILTRATION TESTS, TELEVISION TEST, AND DEFLECTION TEST. THE DEFLECTION TEST SHALL BE PERFORMED NO SOONER THAN THIRTY (30) DAYS OF THE BACKFILLING OPERATION AND SHALL CONSIST OF MEASURING THE PIPE FOR VERTICAL RING DEFLECTION. MAXIMUM RING DEFLECTION OF THE PIPELINE UNDER LOAD SHALL BE LIMITED TO FIVE (5) PERCENT OF THE INTERNAL PIPE DIAMETER. 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 I NO-GO" DEVICE, WITH A DIAMETER EQUAL TO NINETY-FIVE (95) PERCENT OF THE UNDEFLECTED INSIDE DIAMETER OF THE FLEXIBLE PIPE, THROUGH THE PIPELINE. IN ADDITION, ALL SANITARY SEWER HAVING A DIAMETER OF EIGHT (8) INCHES OR GREATER SHALL BE TELEVIEWED. COPIES OF ALL VIDEO TAPES MUST BE SUBMITTED TO THE VILLAGE OF ROMEOVILLE.

FINAL TESTING OF SANITARY SEWER MANHOLES

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 FIFT HOLES SHALL BE PLUGGED WITH A NON-SHRINK GROUT, OR RUBBER PLUG. THE MANHOLE FRAME AND ADJUSTING RINGS 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 D1244-02. 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.

PUBLIC UTILITY AND DRAINAGE EASEMENT PROVISIONS

EASEMENTS ARE RESERVED FOR AND GRANTED TO THE VILLAGE OF ROMEOVILLE AND TO THOSE PUBLIC UTILITY COMPANIES OPERATING UNDER FRANCHISE FROM THE VILLAGE INCLUDING, BUT NOT LIMITED TO, COMMONWEALTH EDISON COMPANY, SBC, NICOR GAS COMPANY, A.T.&T. CABLE COMPANY AND THEIR SUCCESSORS AND ASSIGNS OVER ALL THE AREAS MARKED "PUBLIC UTILITY AND DRAINAGE EASEMENT" ON THE PLAN FOR THE PERPETUAL RIGHT, PRIVILEGE AND AUTHORITY TO CONSTRUCT, RECONSTRUCT, REPAIR, INSPECT, MAINTAIN, AND OPERATE VARIOUS TRANSMISSION AND DISTRIBUTION SYSTEMS INCLUDING STORM AND/OR SANITARY SEWERS, TOGETHER WITH ANY AND ALL NECESSARY MANHOLES, CONNECTIONS, APPLIANCES, AND OTHER STRUCTURES AND APPURTENANCES AS MAY BE DEEMED NECESSARY BY SAID VILLAGE OVER, UPON, ALONG, UNDER, AND THROUGH, SAID INDICATED EASEMENT, TOGETHER WITH RIGHT OF ACCESS ACROSS THE PROPERTY FOR NECESSARY WORKERS AND EQUIPMENT TO DO ANY OF THE ABOVE WORK. THE RIGHT IS ALSO GRANTED TO CUT DOWN, TRIM, OR REMOVE ANY TREES, SHRUBS, PLANTS, OR OTHER APPURTENANCES ON THE EASEMENT THAT INTERFERE WITH THE OPERATION OF THE SEWERS OR OTHER UTILITIES. NO PERMANENT STRUCTURES SHALL BE PLACED ON SAID EASEMENT BUT SAME MAY BE USED AT THE OWNER'S RISK FOR GARDENS, SHRUBS, LANDSCAPING, OR OTHER PURPOSES THAT DO NOT THEN OR LATER INTERFERE WITH THE AFORESAID USES OR RIGHTS. WHERE AN EASEMENT IS USED BOTH FOR VILLAGE AND OTHER UTILITIES, THE OTHER UTILITY INSTALLATION SHALL BE SUBJECT TO THE OTHER ORDINANCES OF THE VILLAGE OF ROMEOVILLE. THESE PROVISIONS GRANT CERTAIN RIGHTS TO THE VILLAGE OF ROMEOVILLE; HOWEVER THE MAINTENANCE RESPONSIBILITY FOR THESE IMPROVEMENTS IS BORNE BY THE LAND OWNER.

DRAINAGE EASEMENT PROVISIONS

EASEMENTS ARE RESERVED FOR AND GRANTED TO THE VILLAGE OF ROMEOVILLE AND THEIR SUCCESSORS AND ASSIGNS OVER ALL THE AREAS MARKED "DRAINAGE EASEMENT" ON THE PLAN FOR THE PERPETUAL RIGHT, PRIVILEGE AND AUTHORITY TO CONSTRUCT, RECONSTRUCT, REPAIR, INSPECT, MAINTAIN, AND OPERATE VARIOUS TRANSMISSION AND DISTRIBUTION SYSTEMS INCLUDING OVERLAND FLOOD ROUTES, DETENTION FACILITIES, STORM SEWERS, TOGETHER WITH ANY AND ALL NECESSARY MANHOLES, CATCH BASINS, CONNECTIONS, APPLIANCES, AND OTHER STRUCTURES AND APPURTENANCES AS MAY BE DEEMED NECESSARY BY SAID VILLAGE OVER, UPON, ALONG, UNDER, AND THROUGH, SAID INDICATED EASEMENT, TOGETHER WITH RIGHT OF ACCESS ACROSS THE PROPERTY FOR NECESSARY WORKERS AND EQUIPMENT TO DO ANY OF THE ABOVE WORK. THE RIGHT IS ALSO GRANTED TO CUT DOWN, TRIM, OR REMOVE ANY TREES, SHRUBS, PLANTS, OR OTHER APPURTENANCES ON THE EASEMENT THAT INTERFERE WITH THE OPERATION OF THE SEWERS, OR OTHER DRAINAGE FACILITIES. NO PERMANENT STRUCTURES SHALL BE PLACED ON SAID EASEMENT BUT SAME MAY BE USED AT THE RISK OF THE OWNER FOR GARDENS, SHRUBS, LANDSCAPING, OR OTHER PURPOSES THAT DO NOT THEN OR LATER INTERFERE WITH THE AFORESAID USES OR RIGHTS. THESE PROVISIONS GRANT CERTAIN RIGHTS TO THE VILLAGE OF ROMEOVILLE; HOWEVER THE MAINTENANCE RESPONSIBILITY FOR THESE IMPROVEMENTS IS BORNE BY THE LAND OWNER.

UTILITY EASEMENT PROVISIONS

EASEMENTS ARE RESERVED FOR AND GRANTED TO THE VILLAGE OF ROMEOVILLE AND THEIR SUCCESSORS AND ASSIGNS OVER ALL THE AREAS MARKED "UTILITY EASEMENT" ON THE PLAN FOR THE PERPETUAL RIGHT, PRIVILEGE AND AUTHORITY TO CONSTRUCT, RECONSTRUCT, REPAIR, INSPECT, MAINTAIN, AND OPERATE VARIOUS UTILITY LINES, INCLUDING BUT NOT LIMITED TO, SANITARY SEWERS, WATER MAINS, STORM SEWERS, TOGETHER WITH ANY AND ALL NECESSARY MANHOLES, CONNECTIONS, APPLIANCES, AND OTHER STRUCTURES AND APPURTENANCES AS MAY BE DEEMED NECESSARY BY SAID VILLAGE OVER, UPON, ALONG, UNDER, AND THROUGH, SAID INDICATED EASEMENT, TOGETHER WITH RIGHT OF ACCESS ACROSS THE PROPERTY FOR NECESSARY WORKERS AND EQUIPMENT TO DO ANY OF THE ABOVE WORK. THE RIGHT IS ALSO GRANTED TO CUT DOWN, TRIM, OR REMOVE ANY TREES, SHRUBS, PLANTS, OR OTHER APPURTENANCES ON THE EASEMENT THAT INTERFERE WITH THE OPERATION OF THE UTILITIES. NO PERMANENT STRUCTURES SHALL BE PLACED ON SAID EASEMENT BUT SAME MAY BE USED AT THE RISK OF THE OWNER FOR GARDENS, SHRUBS, LANDSCAPING, OR OTHER PURPOSES THAT DO NOT THEN OR LATER INTERFERE WITH THE AFORESAID USES OR RIGHTS. THESE PROVISIONS GRANT CERTAIN RIGHTS TO THE VILLAGE OF ROMEOVILLE; HOWEVER THE MAINTENANCE RESPONSIBILITY FOR THESE IMPROVEMENTS IS BORNE BY THE LAND OWNER.

VILLAGE OF ROMEOVILLE RECORD DRAWINGS CHECKLIST

RECORD DRAWINGS ARE REQUIRED TO PROVIDE A MEANS OF SCHEMATIC VERIFICATION THAT THE INTENT OF THE APPROVED ENGINEERING DESIGN HAS BEEN MET, THEREBY SUBSTANTIATING THAT THE HEALTH, SAFETY, AND WELFARE ASPECTS OF THE ENGINEERING DESIGN HAVE BEEN ADEQUATELY PROVIDED BY THE CONSTRUCTION OF THE PROJECT. SECONDLY, RECORD DRAWINGS SERVE AS A REFERENCE TOOL FOR FUTURE LOCATION AND MAINTENANCE OPERATIONS. THE FOLLOWING REQUIREMENTS WILL BE APPLIED TO EACH SET OF RECORD DRAWINGS DEVELOPED FOR THE VILLAGE OF ROMEOVILLE.

- 1.1 GENERAL RECORD DRAWING REQUIREMENTS
A. THE FIRST SHEET OF THE SET WILL HAVE A VICINITY MAP IN THE UPPER RIGHT HAND CORNER.
B. RECORD DRAWINGS SHALL BE SUBMITTED AS REVISIONS SHOWN ON THE ORIGINAL ENGINEERING PLANS AND AS AUTOCAD (VERSION 2004) FILES. RECORD DRAWINGS WILL HAVE THE ORIGINAL DATA LINED THROUGH AND THE RECORD DATA ADDED TO THE DRAWING. AT NO TIME WILL THE ORIGINAL DATA BE ACCEPTED AS THE RECORD DATA.
C. ALL RECORD DRAWINGS FOR MAJOR PROJECTS ARE REQUIRED TO BE 24" x 36" AND SHALL BEAR THE NAME, ADDRESS, AND TELEPHONE NUMBER OF THE FIRM PREPARING THE DRAWING AND THE DATE THE RECORD DATA IS ADDED TO THE ORIGINAL VIA THE REVISION BLOCK.
D. SURVEYOR'S/ENGINEER'S STATEMENT (WITH EMBOSSED OR WET SEAL AND WITH ORIGINAL SIGNATURE ON EACH SHEET) SHALL VERIFY THAT THE RECORD DRAWINGS REFLECT THE TRUE CONDITIONS IN THE FIELD.
E. CONTRACTOR'S STATEMENT (WITH ORIGINAL SIGNATURE ON EACH SHEET) SHALL VERIFY THAT ALL CONSTRUCTION SPECIFICATIONS AND PRODUCT QUALITIES HAVE BEEN MET OR EXCEEDED.
F. "RECORD DRAWING" SHALL BE LABELED ON EACH SHEET IN 1-INCH HIGH LETTERS.
G. STREET NAMES SHALL BE SHOWN ON ALL STREETS.

VILLAGE OF ROMEOVILLE RECORD DRAWINGS CHECKLIST (CONTINUED)

- H. IF THE UTILITY SYSTEM IS TO BE PRIVATE (NOT TO BE DEDICATED TO LOCAL AUTHORITY), THEN INDICATE ON EACH SHEET.
I. THE LOCATION AND ELEVATION OF THE BENCHMARKS REFERENCED WILL BE SHOWN ON THE DRAWING. IF THE REFERENCED BENCHMARKS ARE NOT WITHIN THE PROJECT LIMITS, THEN COMPLETE DESCRIPTIONS OF LOCATIONS MUST BE PROVIDED.
J. SHOW ALL EASEMENTS WITHIN THE PROJECT LIMITS ON THE RECORD DRAWINGS
K. ALL AS-CONSTRUCTED ELEVATIONS MUST BE REFERENCED TO THE SAME BENCH MARK DATUM AS THE ORIGINAL APPROVED DESIGN PLANS.
1.2 WATER SYSTEM RECORD DRAWING REQUIREMENTS
A. LOCATE VALVES, FITTINGS, SERVICES (B-BOXES), SHUT-OFF VALVES, AND FIRE HYDRANTS IN TWO DIRECTIONS (STATION AND OFFSET).
1. LOCATIONS SHALL BE PERPENDICULAR TO THE RIGHT-OF-WAY AND PARALLEL TO THE WATER MAIN.
a. LOT LINES MAY BE USED TO LOCATE WATER SERVICES.
b. PERMANENT STRUCTURES THAT ARE PROPERLY LOCATED MAY ALSO BE USED.
c. RADIAL TIES ARE NOT ACCEPTABLE.
2. ALL HORIZONTAL DISTANCES SHALL BE SHOWN TO THE NEAREST FOOT. ALL VERTICAL DISTANCES SHALL BE SHOWN TO THE NEAREST TENTH OF A FOOT.
B. SHOW ALL MATERIALS, SIZES, AND TYPES OF VALVES, PIPES, AND FITTINGS.
C. ELEVATIONS SHALL BE GIVEN FOR THE TOP OF ALL MANHOLE COVERS AND FOR TOP OF PIPE.
D. SPECIAL DETAIL DRAWINGS WILL BE REQUIRED WHERE INSTALLATIONS ARE NOT SHOWN ON APPROVED ENGINEERING DRAWINGS FOR WHATEVER REASON OR WHERE REQUIRED FOR CLARITY.
E. SHOW LOCATION AND ELEVATIONS FOR PIPES AND FITTINGS WHERE CHANGES IN DIRECTION OCCUR.
F. SHOW LINEAR DISTANCES ALONG WATERMAIN FROM APPURTENANCE TO APPURTENANCE (I.E., VALVE VAULT TO TEE, TEE TO BEND, BEND TO VALVE, ETC.)
G. DETAILS FOR WATER SERVICES DEVIATING FROM TYPICAL INSTALLATION DETAILS OF THE APPROVED ENGINEERING PLANS SHALL BE NOTED ON THE RECORD DRAWINGS.
1.3 SANITARY SEWER SYSTEM RECORD DRAWING REQUIREMENTS
C. ALL PIPING, WYES, TEES, VALVES, CLEANOUTS, MANHOLES AND SPECIAL CASES SHALL BE LOCATED IN TWO DIRECTIONS, IN THE SAME MANNER AS WATER LOCATIONS.
D. HORIZONTAL DIMENSIONS SHALL BE TO THE NEAREST FOOT. VERTICAL ELEVATIONS SHALL BE TO THE NEAREST HUNDRETH OF A FOOT.
E. IDENTIFY THE LENGTH, SIZE, MATERIAL, AND SLOPE OF ALL PIPING (I.E., 300 FEET OF 8" PVC SDR 35 AT 0.4%).
F. ELEVATIONS SHALL BE GIVEN FOR THE TOP OF ALL MANHOLE COVERS AND FOR THE INVERTS OF ALL PIPES ENTERING/EXITING EACH MANHOLE.
G. SERVICE LATERALS ARE TO BE IDENTIFIED WITH LOCATION OF END SERVICE PLUG (STATION AND OFFSET MEASURED UPSTREAM).
H. DETAILS FOR DROP MANHOLES DEVIATING FORM THE DETAILS ON THE APPROVED ENGINEERING PLANS SHALL BE INDICATED ON THE RECORD DRAWINGS.
I. PROVIDE COPIES OF ALL TESTING RECORDS AND VIDEO TAPES OF ALL SANITARY LINES.
1.4 FORCE MAINS RECORD DRAWING REQUIREMENTS
A. LOCATE ALL VALVES, FITTINGS, ETC. IN TWO DIRECTIONS IN THE SAME MANNER AS WATER LOCATIONS.
B. LOCATIONS OF FITTINGS SHALL BE SHOWN AT ALL CHANGES IN DIRECTION.
C. ELEVATIONS SHALL BE GIVEN FOR THE TOP OF ALL MANHOLE COVERS AND FOR THE INVERTS OF ALL PIPES ENTERING/EXITING EACH MANHOLE.
D. SHOW ALL SIZES, MATERIALS, AND TYPES OF VALVES, FITTINGS, PIPE, ETC.
E. SPECIAL DETAIL DRAWINGS WILL BE REQUIRED WHERE INSTALLATIONS ARE NOT AS SHOWN ON THE APPROVED DRAWINGS FOR WHATEVER REASON.
1.5 PUMP STATION RECORD DRAWING REQUIREMENTS
A. WETWELL SIZE AND LOCATION SHALL BE SHOWN ALONG WITH HIGH AND LOW WATER LEVELS.
B. ELEVATIONS FOR TOP, BOTTOM, INVERTS, ADJACENT GROUND AND TYPE AND SIZE OF LINES AND FITTINGS FOR ALL LINES ENTERING OR LEAVING THE WETWELL.
C. ALL SCHEDULES WHICH SHOW PUMP, MOTOR AND ELECTRICAL DATA SHALL BE AMENDED AND SHALL BE SUBMITTED WITH WETWELL DRAWINGS.
D. ALL IMPROVEMENTS WITHIN THE PUMP STATION BOUNDARIES SHALL BE LOCATED HORIZONTALLY AND VERTICALLY TO THE NEAREST TENTH OF A FOOT (I.E., VALVE PIT, PUMP-OUT, WATER SPOUT, WETWELL, CONTROL PANEL, BENDS, FITTINGS, ETC.).
E. COPIES OF ALL OPERATION AND MAINTENANCE MANUALS (THREE COPIES MINIMUM) INCLUDING PUMP CURVES.
1.6 DRAINAGE SYSTEM RECORD DRAWING REQUIREMENTS
A. ALL DRAINAGE STRUCTURES SHALL BE LOCATED BY STATION AND OFFSET FROM RIGHT OF-WAY LINE.
B. ELEVATIONS SHALL BE GIVEN FOR THE TOP OF ALL MANHOLE COVERS AND FOR THE INVERTS OF ALL PIPES ENTERING/EXITING EACH MANHOLE.
C. PER THE WILL COUNTY STORM WATER ORDINANCE, ANY ON-SITE FIELD TILES WHICH REMAIN ON-SITE MUST BE IDENTIFIED ON RECORD DRAWINGS.
D. IDENTIFY SIZE, MATERIAL, AND SLOPE OF ALL PIPING.
E. PROVIDE SPOT ELEVATIONS AND CROSS SECTIONAL INFORMATION, AS WELL AS SLOPE, ON ALL DITCHES, CANALS, ETC.
F. "RECORD" INFORMATION REQUIRED ON STORM WATER BASINS SHALL CONSIST OF:
1. TOPOGRAPHIC MAP OF THE DETENTION AREA.
2. SPOT ELEVATION ON TOP OF BANK TO CONFIRM MINIMUM DESIGN BANK ELEVATION.
3. OBSERVED WATER ELEVATION AT DATE OF THE RECORD DRAWING FOR WET BOTTOM BASINS.
4. IN-TOOT RECORD DETAIL OF THE OUTLET CONTROL STRUCTURE INCLUDING ELEVATIONS OF THE TOP OF THE CONTROL STRUCTURE, THROAT, FACES, ORIFICES, OR UNDERDRAIN.
5. LOCATION OF TOP OF BANK AND EXISTING WATER EDGES AT TIME AND DATE OF TAKING ELEVATIONS.
6. SPOT ELEVATIONS ON THE BOTTOM OF DRY BOTTOM BASINS, OR, IF REQUESTED BY THE VILLAGE ENGINEER FOR WET BOTTOM BASINS.
7. A STAGE/STORAGE TABLE SHOWING THE DESIGN AND AS-CONSTRUCTED POND VOLUMES AND RELEASE RATES.
8. A SIGNED/SEALED STATEMENT BY A PROFESSION ENGINEER THAT THE DETENTION POND(S) PROVIDES THE REQUIRED DETENTION STORAGE AND DOES NOT EXCEED THE ALLOWABLE OUTFLOW RATE(S) PER THE APPROVED CONSTRUCTION PLANS AND HYDROLOGY STUDY. IF SIGNIFICANTLY DIFFERENT THAN THE APPROVED DRAWINGS (AS DETERMINED BY THE VILLAGE ENGINEER), THE ENGINEER MUST SUBMIT A REVISED HYDROLOGY STUDY USING THE AS-CONSTRUCTED CONDITIONS IN ORDER TO DOCUMENT THIS STATEMENT.
9. PROVIDE COPIES OF ALL TESTING RECORDS AND VIDEO TAPES OF ALL STORM LINES.
1.7 GRADING RECORD DRAWING REQUIREMENTS
A. INCLUDE ELEVATIONS FOR PROPERTY CORNERS, THE HIGH OR LOW POINTS, OR MAJOR BREAK POINTS ON ALL LOT LINES, AND SWALES.
B. INCLUDE SPOT ELEVATIONS ON THE SIDE PROPERTY LINES AT THE FRONT AND REAR LINES OF THE STRUCTURE EXTENDED.
C. SHOW CONTOURS AT A ONE-FOOT CONTOUR INTERVAL. FLAT GRADING MAY REQUIRE INTERMEDIATE CONTOUR LINES TO DEFINE SWALES AND DRAINAGE PATTERNS.
D. LOCATE THE LOWEST ADJACENT GRADES (LAGS) TO ANY OPENINGS ALONG REAR YARD AND SIDE-YARD SWALES.
E. PROVIDE CROSS-SECTIONS, AT A MAXIMUM SPACING OF 50 FEET, ALONG ALL 100- YEAR OVERLAND FLOOD ROUTES LOCATED OUTSIDE STREET PAVEMENTS.
1.8 STRUCTURE RECORD DRAWING REQUIREMENTS
A. INCLUDE AS-CONSTRUCTED TOP OF FOUNDATION ELEVATIONS, INCLUDING ALL STEPS IN THE FOUNDATION.
B. INCLUDE AS-CONSTRUCTED ELEVATIONS OF BASEMENTS OR WALK-OUTS IF PRESENT.
1.9 STREET LIGHTING RECORD DRAWING REQUIREMENTS
A. PROVIDE HORIZONTAL TIES FOR LIGHT FOUNDATIONS AND CONTROL CABINETS AS REFERENCED TO THE APPROVED PLAN STATIONING OR COORDINATE.
B. SERVICE CABLES AND SERVICE TRANSFORMERS SHALL BE DEPICTED IN SCHEMATIC FORM.
1.10 ELECTRONIC FILE RECORD DRAWING REQUIREMENTS
A. INCLUDE AUTOCAD (V.2004) COMPATIBLE VERSION OF ALL RECORD INFORMATION.
B. PROVIDE SEPARATE LAYERS FOR ALL UTILITIES.
1.11 ACCEPTANCE OF RECORD DRAWING
A. NO FINAL OCCUPANCY PERMITS, OR ACCEPTANCE OF THE PUBLIC UTILITIES BY THE VILLAGE OF ROMEOVILLE WILL PROCEED UNTIL THE RECORD DRAWINGS HAVE BEEN SUBMITTED AND APPROVED BY THE VILLAGE ENGINEER.
NOTE: 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.

VILLAGE OF ROMEOVILLE WATER NOTES:

ALL VALVE VAULTS SHALL BE A MINIMUM OF 5' DIAMETER.

FRAME AND COVER SHALL BE EAST JORDAN #102223 EMBOSSED WITH 1020A HD "WATER" AND "VILLAGE OF ROMEOVILLE".

ALL JOINTS NEED TO BE EXTERNALLY WRAPPED WITH MacWrap OR EQUAL.

RUBBER GASKETED BOOTS ARE REQUIRED FOR ALL PENETRATIONS THROUGH THE MANHOLE WALL.

INTERNAL/EXTERNAL CHIMNEY SEALS ARE REQUIRED.

MINIMUM OF TWO ADJUSTING RINGS (MIN 6" ADJUSTING HEIGHT) AND MAXIMUM OF THREE RINGS (MAX 10" ADJUSTING HEIGHT). NO 1" OR 2" CONCRETE RINGS ARE ALLOWED. UNDER PAVED AREAS, TOP RING SHOULD BE RUBBER. USE ONE (1) EJM INGRA-RISER RUBBER COMPOSITED ADJUSTMENT RISERS (1" TO 3" MAX HT. OF STACKED RISERS)

MANHOLES MUST CONFORM TO THE LATEST REQUIREMENTS OF ASTM C478.

NEVER TRANSPORT SECTIONS TO THE SITE UNTIL THEY HAVE CURED FOR AT LEAST 10 (10) DAYS.

MARK EACH PIECE PLAINLY WITH MANHOLE NUMBERS AND DATE OF MANUFACTURE SO IT CAN BE INSTALLED IN THE PROPER LOCATION, AS SHOWN ON THE PLANS.

MAKE SURE FACTORY-INSTALLED CUTOUTS IN THE BOTTOM SECTION ARE APPROPRIATE FOR THE PIPE BEING LAID.

PIPE CONNECTIONS AT MANHOLE-CUTOUTS SHOULD BE EQUIPPED WITH RUBBER BOOTS TO ENSURE A WATERTIGHT CONNECTION. MATERIAL SHALL BE EQUAL TO KOR-N-SEAL CONNECTOR, AS MANUFACTURED BY NPC, INC.

JOINT SEALANT -- FLEXIBLE RUBBER SEALANT FOR JOINTS IN PRE-CAST MANHOLE SECTIONS SHALL PROVIDE PERMANENTLY FLEXIBLE WATERTIGHT JOINT, SHALL REMAIN WORKABLE OVER A WIDE TEMPERATURE RANGE AND SHALL NOT SHRINK, HARDEN OR OXIDIZE UPON AGING. MATERIAL SHALL BE EQUAL TO TYLOX SUPERSEAL AND SHALL MEET ASTM C 443 AND ASTM C 361 REQUIREMENTS.

THE FRAME FOR THE UID SHALL BE INSTALLED WHEN CONE SECTION IS CAST.

HEAT-SHRINKABLE ENCAPSULATION FOR EXTERNAL WRAPPING OF ALL JOINTS: WRAPID SEAL AS MANUFACTURED BY CANUSA CPS, BIDCO EXTERNAL JOINT WRAP AS MANUFACTURED BY NPC, OR APPROVED EQUAL.

PLEASE BE CONSCIOUS OF DAMAGING THE PAINT ON THE HYDRANTS DURING INSTALLATION. THE VILLAGE OF ROMEOVILLE HAS FOUND THAT THE PAINT ON THE HYDRANTS CAN BEEN DAMAGED DURING BACKFILLING. IF REQUESTED BY THE VILLAGE OF ROMEOVILLE WATER SUPERINTENDENT, ANY HYDRANTS EXHIBITING EXCESSIVE ROCK DAMAGE WILL BE SAND BLASTED AND REPAINTED BY AN APPROVED CONTRACTOR PRIOR TO ACCEPTANCE.

A MINIMUM OF 48 HOURS PRIOR TO ANY WATER USAGES (I.E. FLUSHES, FILLS, ETC.), THE CONTRACTOR MUST CALL THE VILLAGE OF ROMEOVILLE'S WATER DEPARTMENT AT 815-886-1870 TO GET APPROVAL OF SAID USAGE. ANY UNAUTHORIZED USAGES WILL RESULT IN PENALTIES.

ALL VALVES AND HYDRANTS SHALL BE SUBMITTED TO THE VILLAGE OF ROMEOVILLE WATER DEPARTMENT FOR WRITTEN APPROVAL PRIOR TO ORDERING.

WATERMAIN MUST HAVE A MINIMUM COVER DEPTH OF 5'-6". ALL WATERMAINS MUST BE WRAPPED IN POLYETHYLENE USING METHOD B. ALL JOINTS MUST BE RESTRAINED WITH MEGALUGS (EBAA IRON) ONLY.

HYDRANTS MUST BE EAST JORDAN WATER MASTER 5BR250, WITH 6" PLAIN-END SHOE WITH ATTACHED 6" RESILIENT WEDGE MECHANICAL JOINT VALVE, AND MUST INCLUDE STORZ PUMPER CONNECTION ALONG WITH TWO 2-1/2" HOSE CONNECTIONS. VALVES MUST BE AMERICAN FLOW OR EAST JORDAN (FLOWMASTER). ALL SIZES SHOULD BE RESILIENT-SEATED GATE VALVES.

ALL MANHOLES LOCATED IN AREAS SUBJECT TO INUNDATION MUST HAVE WATERPROOF BOLT-DOWN FRAMES AND LIDS. FLOWMASTER OR AMERICAN FLOW RESILIENT WEDGE GATE VALVES MUST BE USED FOR PRESSURE CONNECTIONS.

VILLAGE OF ROMEOVILLE SANITARY NOTES:

ALL MANHOLES LOCATED IN AREAS SUBJECT TO INUDATION MUST HAVE WATER PROOF, BOLT-DOWN FRAMES AND LIDS.

WHEN UTILITY STRUCTURE ADJUSTMENT IS NECESSARY, A MINIMUM OF TWO ADJUSTING RINGS (MIN 6" ADJUSTING HEIGHT) AND MAXIMUM OF THREE RINGS (MAX 10" ADJUSTING HEIGHT). NO 1" OR 2" CONCRETE RINGS ARE ALLOWED. UNDER PAVED AREAS, TOP RING SHOULD BE RUBBER. USE ONE (1) EJM INFRA-RISER RUBBER COMPOSITE.

USE AN INTERNAL/EXTERNAL ADAPTOR SEAL ON SANITARY MANHOLES. THE 1"/E A" SEAL STOPS INFLOW BETWEEN THE MANHOLE FRAME AND THE TOP ADJUSTING RING AND IT ALSO SEALS THE MANHOLE CHIMNEY FROM THE FRAME TO THE CORBEL. ONE VENDOR OF THIS SEAL IS ADAPTOR INC.

"INTERNAL CHIMNEY SEALS SHALL BE ENVIROLASTIC 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, FROM RELEASE AGENTS, MOISTURE CURING MEMBRANES, LOOSE CEMENT AND HARDENERS. FILL BUG HOLES, AIR POCKETS AND OTHER VOIDS WITH STEEL-SEAM FT910. AFTER ENSURING THAT ALL POCKETS AND SURFACES ARE CLEAN THE CHIMNEY SEAL COATING MATERIAL SHALL BE APPLIED EVENLY AND THE VERTICAL RISER OF THE MANHOLE CONE INCLUDING ALL EXTENSIONS TO THE CHIMNEY AREA. APPLICATION SHALL BE MADE IN ACCORDANCE WITH MANUFACTURE'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."

SANITARY MANHOLE FRAME AND COVER SHALL BE EAST JORDAN 102223 EMBOSSED WITH "SANITARY" AND "VILLAGE OF ROMEOVILLE". ALL JOINTS NEED TO BE EXTERNALLY WRAPPED WITH MacWrap OR EQUAL. RUBBER GASKETED BOOTS ARE REQUIRED FRO THE MAIN AT THE MANHOLE WALL.

ALL SANITARY MANHOLE CASTINGS, ADJUSTING RINGS AND MANHOLE SECTIONS 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 RUBBERIZED MASTIC MEETING THE REQUIREMENTS OF ASTM C-877-02 (STANDARD SPECIFICATIONS 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 CONNECTION BETWEEN REINFORCED CONCRETE MANHOLE STRUCTURES AND PIPES).

VILLAGE OF ROMEOVILLE STORM NOTES:

STORM SEWER JOINTS MUST BE FLEXIBLE GASKET O-RINGS PER ASTM C361, ASTM C443, AND ASTM C1619.

VILLAGE REQUIRES SUBMISSION OF RECORDED VIDEO INSPECTIONS OF ALL PUBLIC STORM SEWER.

FOR CLOSED LID STRUCTURES, FRAME AND COVER SHALL BE EAST JORDAN 102223 EMBOSSED WITH "STORM" AND "VILLAGE OF ROMEOVILLE"

ALL STORM SEWER FRAMES AND GRATES/LIDS SHALL BE MARKED WITH "DUMP NO WASTE" AND "DRAINS TO CREEK"

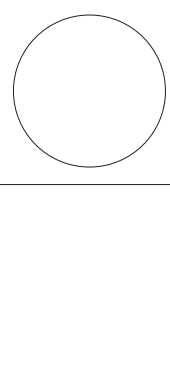
A MINIMUM OF TWO ADJUSTING RINGS (MIN 6" ADJUSTING HEIGHT) AND MAXIMUM OF THREE RINGS (MAX 10" ADJUSTING HEIGHT). NO 1" OR 2" CONCRETE RINGS ARE ALLOWED. UNDER PAVED AREAS, TOP RING SHOULD BE RUBBER. USE ONE (1) EJM INFRA-RISER RUBBER COMPOSITE.

VILLAGE OF ROMEOVILLE PAVEMENT NOTES:

ALL EXPOSED CURB CORNERS (FOR ISLANDS WITHIN PARKING AREAS) SHOULD INCLUDE A MINIMUM 1' CURB RADIUS.

GRANULAR TRENCH BACKFILL IS REQUIRED WHEN THE TRENCH IS WITHIN TWO FEET OF PAVEMENT OR CURB. THE LIMITS OF ALL GRANULAR (CA-6) TRENCH BACKFILL MUST BE SHOWN ON THE PLANS FOR ALL APPLICABLE PIPE RUNS AND SHOULD ALSO BE ACCOUNTED FOR IN THE COST ESTIMATE.

G&C CONSULTING ENGINEERS, INC.
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DESCRIPTION:	VILLAGE REVIEW	VILLAGE REVIEW	DATE:
	09-10-19	07-03-19	

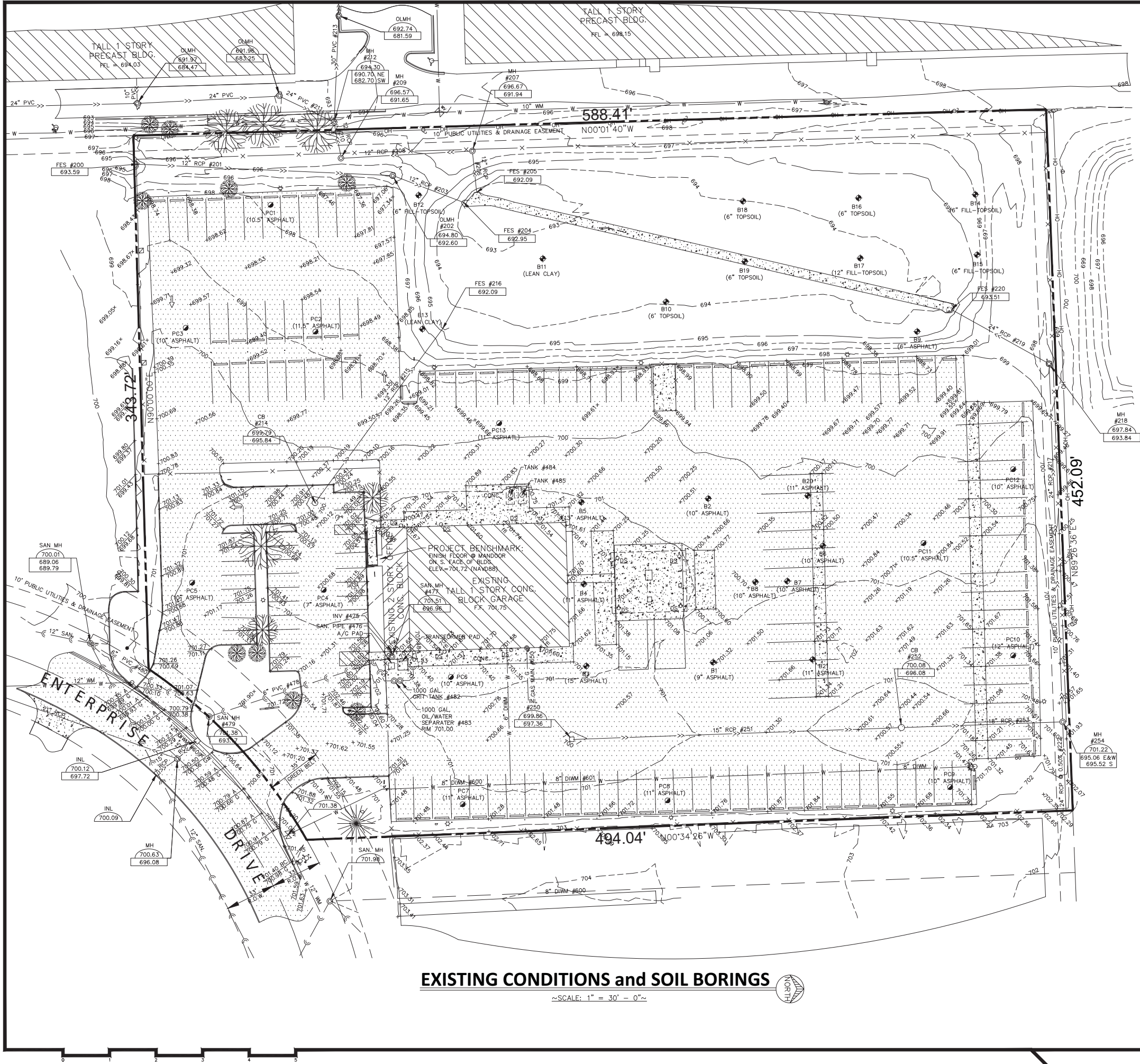
PROJECT NO: 15.120
SHEET NO:

G&C #19-005

C-2

SHEET TITLE:	GENERAL NOTES and SPECIFICATIONS		
DRAWN BY:	DMC	CHECKED BY:	FDC

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FOR SOIL BORING INFORMATION SEE GEOTECHNICAL
ENGINEERING REPORT DATED AUGUST 26, 2016

• B = SOIL BORING
(X) = DEPTH OF ASPHALT

• PC = PAVEMENT BORING
(X) = DEPTH OF ASPHALT

EXISTING CONDITIONS and SOIL BORINGS

~SCALE: 1" = 30' - 0"~



NEW FACILITY
1290 ENTERPRISE DR., ROMEVILLE, IL

DESCRIPTION: VILLAGE REVIEW

DATE: 05-10-19

VILLAGE REVIEW

DATE: 07-03-19

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PROJECT NO: 15.120

SHEET NO:

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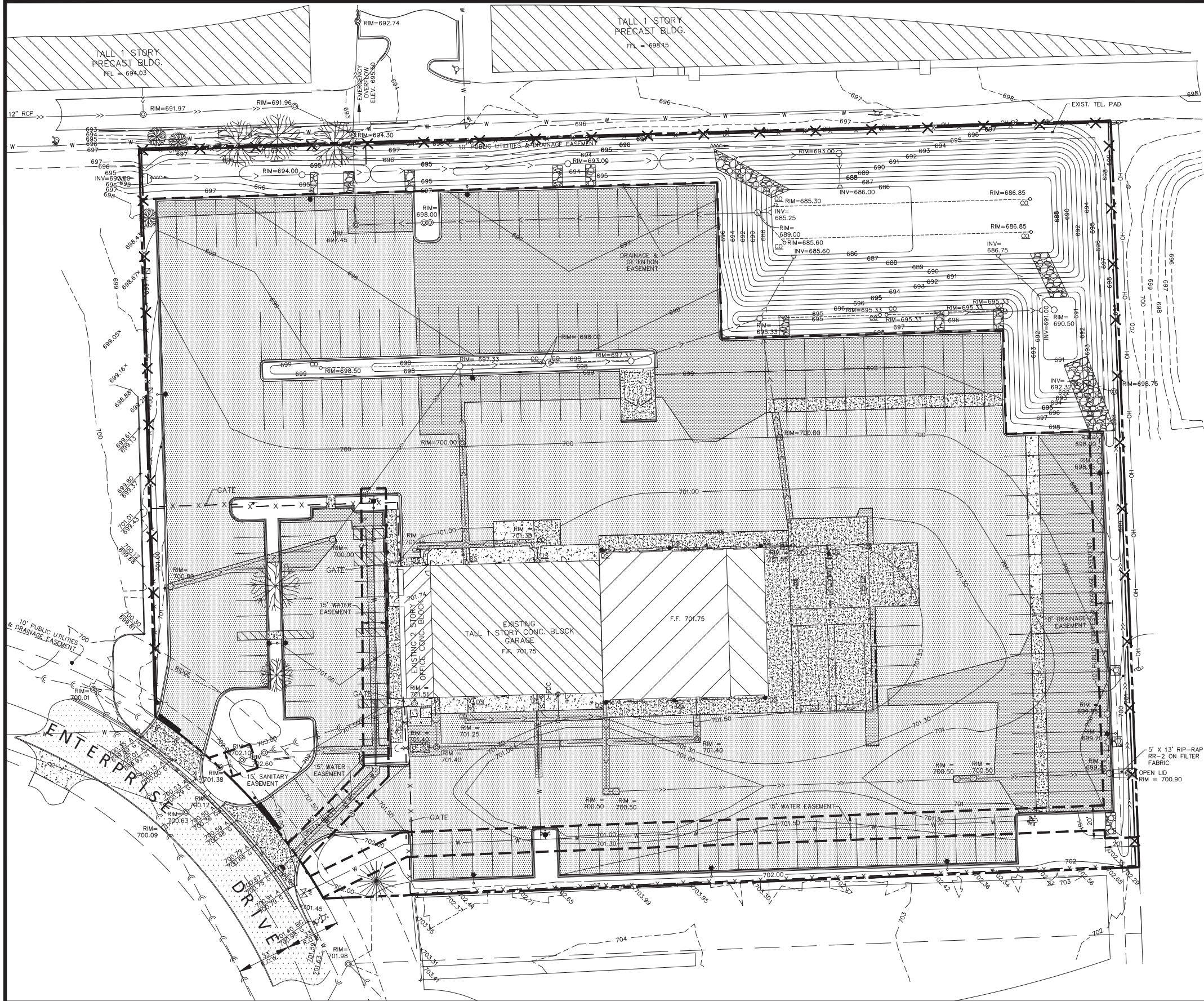
SHEET TITLE: EXISTING CONDITIONS and SOIL BORINGS

DRAWN BY: DMC

CHECKED BY: FDC

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**PROJECT PROPOSED SITE PLAN
and ITEMS OF WORK**

~SCALE: 1" = 30'~



WHEN SHEET IS PRINTED CORRECTLY, THE ABOVE SCALE IS IN 1" INCREMENTS

ITEMS OF WORK:

CONSTRUCTION SCHEDULE SHALL BE PREPARED BY CONTRACTOR IN WRITING AND SHALL BE APPROVED BY OWNER PRIOR TO ANY CONSTRUCTION ACTIVITY.

MAINTAIN CLOSE COORDINATION WITH OWNER DURING ALL PHASES OF CONSTRUCTION. RYDER CLIENT SERVICES SHALL BE MAINTAINED DURING CONSTRUCTION.

CHANGES TO CONSTRUCTION SCHEDULE SHALL BE APPROVED BY OWNER PRIOR TO IMPLEMENTATION.

PHASE 1

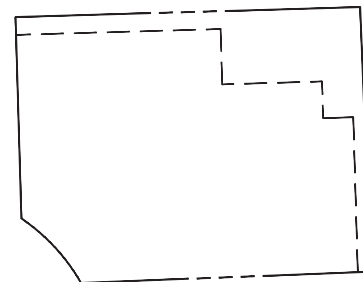
1. REMOVE OR MODIFY EXISTING STORM SEWERS DRAINING INTO NEW DETENTION POND FROM OFFSITE AREAS FROM THE SOUTH AND EAST.
2. REVISE STORM SEWERS THAT PROVIDE STORM RELEASE FROM DETENTION AREA.
3. PROVIDE STORM WATER EROSION CONTROL PROCEDURES WHILE MASS GRADING THE NEW DETENTION POND AND NEW PAVEMENT AREAS.
4. SAW-CUT EXISTING ASPHALT PAVEMENT TO PROVIDE NEW AND REVISED STORM SEWERS.
5. SAW-CUT EXISTING PAVEMENT EDGE TO INSTALL NEW CONCRETE CURB AND GUTTER.
6. CONSTRUCT NEW PAVEMENT, MILL EXISTING PAVEMENT, AND PROVIDE TEMPORARY PAVEMENT STRIPING.
7. PROVIDE NEW FENCE AND GATES.

PHASE 2

1. PROVIDE STORMWATER EROSION CONTROL PROCEDURES.
2. CONSTRUCT NEW TRUCK FUEL FACILITY KEEPING EXISTING FUEL STATION IN OPERATION.
3. CONSTRUCT NEW AND TEMPORARY UTILITY CONNECTIONS FOR FUEL FACILITY OPERATIONS.

PHASE 3

1. REMOVE EXISTING SURFACE OF TRUCK FUELING FACILITY. SEPARATE OWNER CONTRACTOR SHALL REMOVE EXISTING UNDERGROUND FUEL TANK.
2. CONSTRUCT NEW SANITARY SEWER WITH NEW OIL WATER SEPARATOR.
3. REMOVE EXISTING GRIT TANK, 1000 GALLON OIL WATER SEPARATOR, AND SANITARY PIPING. INSTALL NEW CONNECTION TO NEW 2000 GALLON OIL WATER SEPARATOR.
4. CONSTRUCT NEW WATER CONNECTION, PIPING AND FIRE HYDRANTS.
5. CONSTRUCT PROPOSED BUILDING ADDITION.
6. CONSTRUCT REVISED EMPLOYEE PARKING AREA.
7. SAW-CUT EXISTING ASPHALT TO INSTALL STORM STRUCTURES.
8. SAW-CUT EXISTING ASPHALT PAVEMENT TO INSTALL NEW CONCRETE CURBS.
9. REMOVE EXISTING UNDERGROUND OIL TANKS ON WEST SIDE OF EXISTING BUILDING WHEN DIRECTED BY OWNER.
10. CONSTRUCT NEW PAVEMENT, MILL EXISTING PAVEMENT, AND PROVIDE TEMPORARY STRIPING.
11. CONSTRUCT NEW SURFACE OVERLAY OVER ENTIRE SITE AFTER MAJOR ELEMENTS OF CONSTRUCTION HAS BEEN COMPLETED. PROVIDE NEW PAVEMENT STRIPING.
12. PROVIDE NEW FENCE AND GATES.

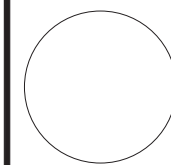
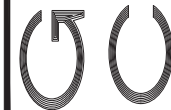


NEW DETENTION EASEMENT

NOTES:

1. COORDINATE ALL CIVIL ENGINEERED PLANS WITH ARCHITECTURAL AND LANDSCAPE PLANS.
2. FOR LIGHT STANDARDS SEE ELECTRICAL PLANS.

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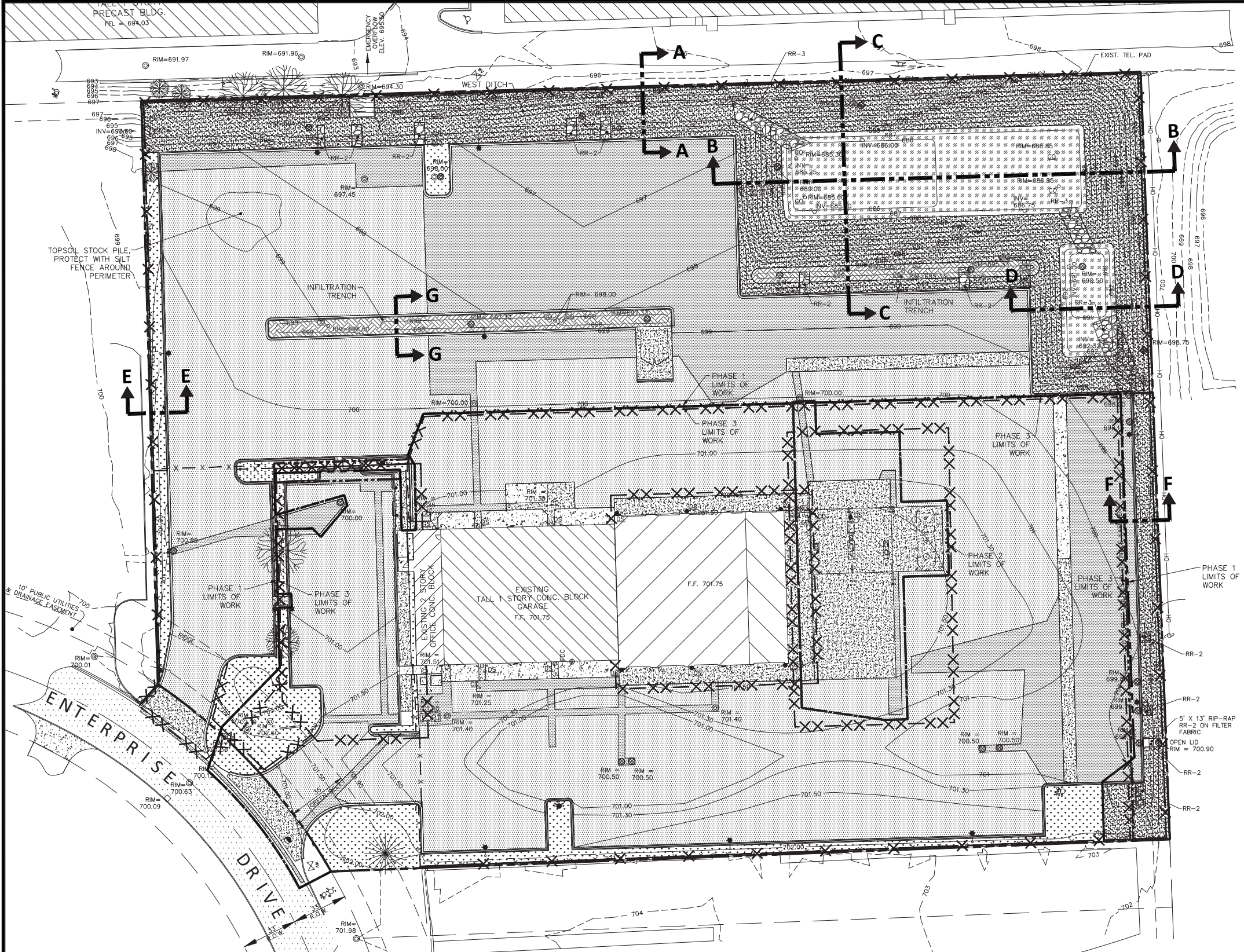
**NEW FACILITY
1290 ENTERPRISE DR., ROMEVILLE, IL**

PROJECT NO: 15.120
SHEET NO:

G&C #19-005

SHEET TITLE: PROJECT PROPOSED SITE PLAN and ITEMS OF WORK
DRAWN BY: DMC
CHECKED BY: FDC

C-4



PROPOSED SITE SOIL EROSION CONTROL PLAN

~SCALE: 1" = 30'~



ROMEEOVILLE SOIL EROSION NOTES:

- ALL ACCESS TO AND FROM THE CONSTRUCTION SITE IS TO BE RESTRICTED TO THE CONSTRUCTION ENTRANCE.
- ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE EFFECTIVE PERFORMANCE OF THEIR INTENDED FUNCTION.
- 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.
- 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.
- 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.
- DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN 14 CALENDAR DAYS FOLLOWING THE END OF ACTIVE DISTURBANCE OR REDISTURBANCE.
- 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.
- DUST CONTROL MEASURES FOR CONSTRUCTION ACTIVITIES SHALL MINIMIZE SOIL DISTURBANCE, APPLY MULCH AND ESTABLISH VEGETATION, AND WATER SPRAYING. WATER SHALL BE APPLIED AT RATES SO THAT RUNOFF DOES NOT OCCUR.

NOTES:

- FOR SECTIONS SEE SHEET C-6
- FOR PHASE 1 SOIL EROSION CONTROL SEE SHEET C-16
- FOR PHASE 2 SOIL EROSION CONTROL SEE SHEET C-22
- FOR PHASE 3 SOIL EROSION CONTROL SEE SHEET C-25
- FOR SOIL EROSION CONTROL DETAILS SEE SHEET C-58
- FOR STORMWATER POLLUTION PROTECTION PLAN SEE SHEET C-34

EROSION CONTROL NOTES:

- THE EROSION CONTROL PLAN SHALL BE IMPLEMENTED ON ALL DISTURBED AREAS WITHIN THE CONSTRUCTION SITE. ALL MEASURES INVOLVING EROSION CONTROL PRACTICES SHALL BE INSTALLED UNDER THE GUIDANCE OF QUALIFIED PERSONNEL EXPERIENCED IN EROSION CONTROL, AND FOLLOWING THE PLANS AND SPECIFICATIONS INCLUDED IN HEREIN.
- ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION AND UNTIL ALL LAND DISTURBING AND CONSTRUCTION ACTIVITIES HAVE CEASED. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
- THE CONTRACTOR SHALL CONTROL WASTES, GARBAGE, DEBRIS, WASTEWATER, AND OTHER SUBSTANCES ON THE SITE IN SUCH A WAY THAT THEY SHALL NOT BE TRANSPORTED FROM THE SITE BY THE ACTION OF WINDS, STORM WATER RUNOFF, OR OTHER FORCES. PROPER DISPOSAL AND MANAGEMENT OF ALL WASTES AND UNUSED CONSTRUCTION MATERIAL, APPROPRIATE TO THE NATURE OF THE WASTES AND MATERIALS IS REQUIRED. COMPLIANCE IS REQUIRED WITH ALL APPLICABLE REGULATIONS REGARDING WASTE DISPOSAL.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AREAS FOR STORAGE OF DISPOSAL OF SOLID, SANITARY, AND TOXIC WASTES, AND VEHICLE OR EQUIPMENT FUELING.
- EXISTING VEGETATION SHALL BE PROTECTED AS MUCH AS PRACTICAL.
- THE CONTRACTOR SHALL STOCKPILE TOPSOIL FOR USE IN FINAL LANDSCAPING. THE LOCATION OF THE STOCKPILE AREA SHALL BE DETERMINED BY THE CONTRACTOR, UNLESS OTHERWISE INDICATED ON THE DRAWINGS, AND ALL NECESSARY EROSION AND SEDIMENTATION PREVENTION MEASURES SHALL BE IMPLEMENTED.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ALL MUD, DIRT, GRAVEL, AND ANY OTHER MATERIALS TRACKED ONTO ANY PUBLIC OR PRIVATE STREETS, SIDEWALKS, OR RIGHTS-OF-WAY. THE CONTRACTOR MUST USE WATER OR OTHER METHODS TO KEEP AIRBORNE DUST TO A REQUIRED MINIMUM.
- PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED IMMEDIATELY AFTER THE UTILITY INSTALLATION.
- INLET PROTECTION SHALL BE INSTALLED AT ALL STORM DRAINAGE INLETS.
- CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT FROM ALL UTILITY STRUCTURES PRIOR TO FINAL SITE STABILIZATION. AT COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE TRANSFER OF MAINTENANCE RESPONSIBILITIES OF ANY PERMANENT SEDIMENT CONTROL STRUCTURES WITH THE OWNER.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE REMOVED AND DISPOSED OF WITHIN THIRTY DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED, OR AFTER THE TEMPORARY PRACTICES ARE NO LONGER NEEDED. ACCUMULATED SEDIMENT SHALL BE PERMANENTLY STABILIZED OR PROPERLY DISPOSED.
- THE APPROVED EROSION CONTROL PLAN MUST BE RETAINED ON-SITE AT ALL TIMES DURING THE PERIOD OF CONSTRUCTION.
- ALL CONSTRUCTION AND DEMOLITION DEBRIS WASTE WILL BE DISPOSED OF IN A LEGAL MANNER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PERMITS AND EROSION CONTROL ASSOCIATED WITH OFFSITE BORROW OR SPOIL AREAS.
- CONTRACTOR SHALL COMPLY WITH ALL STATE & LOCAL ORDINANCES THAT APPLY.
- ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.25 INCHES OF RAIN PER 24 HOUR PERIOD.
- ALL SLOPES STEEPER THAN 12% SHALL RECEIVE EROSION MAT AND SHALL BE STAKED AS NECESSARY.

LEGEND

- LIMITS OF PHASES
- X-X- SILT FENCE ON CONSTRUCTION FENCE
- X- SILT FENCE ON FENCE
- ⊗ FILTER BASKET
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- SEEDING EROSION CONTROL BLANKET
- STONE POND BOTTOM
- INFILTRATION TRENCH
- GRASS/GROUND COVER
- RIP-RAP ON FILTER FABRIC

FOR QUANTITIES SEE INDIVIDUAL PHASE PLANS

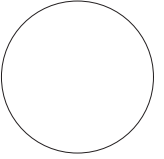
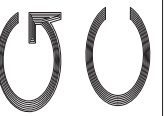
THIS EROSION CONTROL PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND COMPLIES WITH THE URBAN SOIL EROSION CONTROL AND STANDARDS IN ILLINOIS MANUAL (LATEST EDITION) AND THE GENERALLY RECOGNIZED METHODS IN USE IN THE AREA.

Frank D. Childers
FRANK D. CHILDERS
ILLINOIS PROFESSIONAL ENGINEER NO. 0062-024465
MY LICENSE EXPIRES NOVEMBER 30, 2019

G&C #19-005

SHEET TITLE:	PROPOSED SITE SOIL EROSION CONTROL PLAN
DRAWN BY:	DMC
CHECKED BY:	FDC

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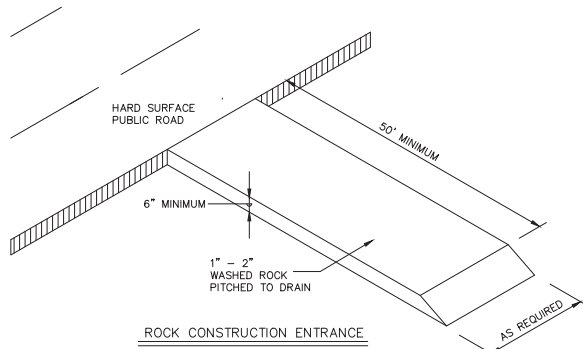


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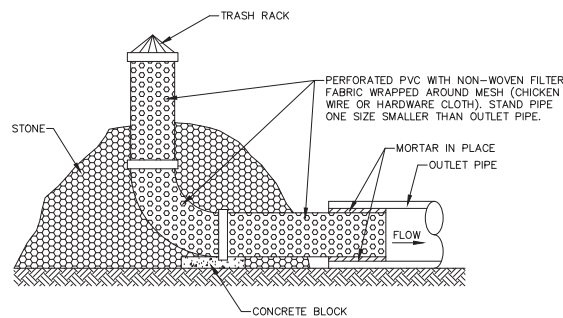
DESCRIPTION:	VILLAGE REVIEW	05-10-19
DATE:	VILLAGE REVIEW	07-03-19

PROJECT NO: 15.120
SHEET NO:

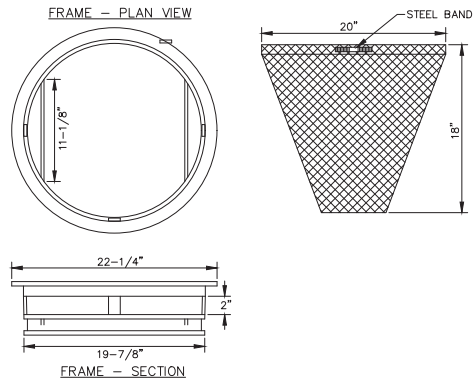
C-5A



CONSTRUCTION ENTRANCE DETAIL



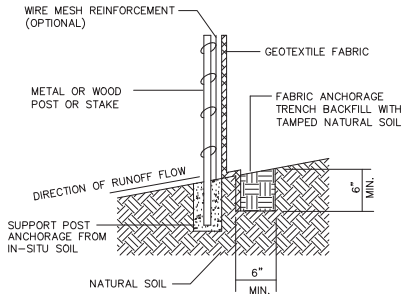
TEMPORARY PERFORATED RISER DETAIL



NOTE:
FRAME: TOP FLANGE FABRICATED FROM 1-1/4" X 1-1/4" X 1/8" ANGLE. BASE RIM FABRICATED

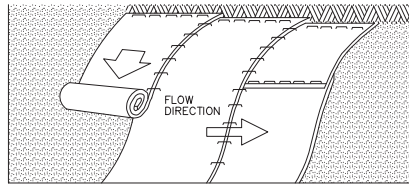
GENERAL NOTES:
FROM 1-1/2" X 1/2" X 1/8" CHANNEL. HANDLES AND SUSPENSION BRACKETS FABRICATED FROM 1-1/4" X 1/4" FLAT STOCK. ALL STEEL CONFORMING TO ASTM-A36.
SEDIMENT BAG: BAG FABRICATED FROM 4 OZ./SQ.YD. NON-WOVEN POLYPROPYLENE GEOTEXTILE REINFORCED WITH POLYESTER MESH. BAG SECURED TO BASE RIM WITH A STAINLESS STEEL STRAP AND LOCK.
FILTER FOR OTHER SHAPE GRATES SHALL BE APPROVED IN ADVANCE OF PLACEMENT BY VILLAGE ENGINEERING.

FILTER FOR ROUND OPEN (TYPE 1)
GRATE AND FRAME DETAIL



NOTE:
1. DEPENDING UPON CONFIGURATION, ATTACH FABRIC TO WIRE MESH W/ HOG RINGS, STEEL POSTS W/ TIE WIRES, WOOD POSTS W/ NAILS.
2. SILT FENCE SHALL BE REMOVED AS DIRECTED BY ENGINEER.
3. SILT FENCE SHALL BE MIRAFI PREFABRICATED SILT FENCE OR APPROVED EQUAL.

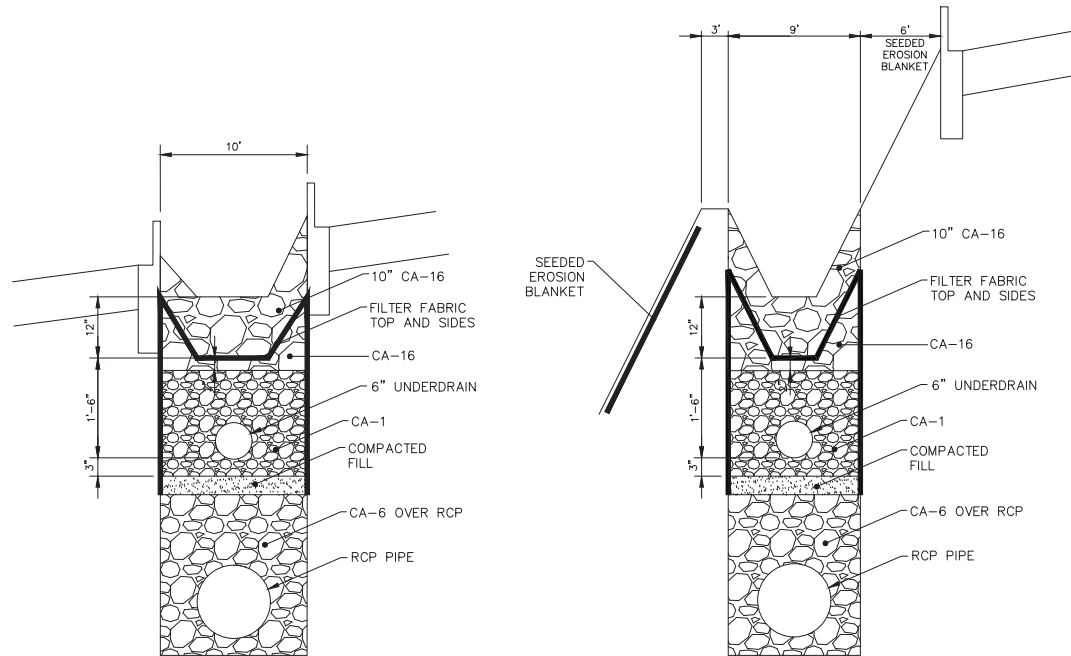
TYPICAL SILT FENCE DETAIL



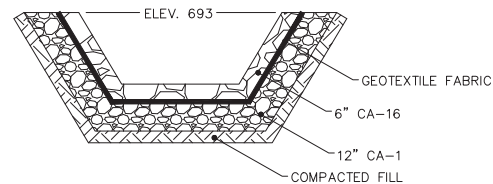
SLOPE INSTALLATION

NOTES:
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE (OR CHANNEL) BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS DOWN STARTING AT DOWNSTREAM PROCEEDING UPSTREAM HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH AN APPROXIMATE (MIN.) 4" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY A (MIN.) 6" OVERLAP. USE A DOUBLE ROW OF STAGGERED STAPLES 4" APART TO SECURE BLANKETS.
6. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A ROW OF STAPLES 4" APART OVER ENTIRE WIDTH OF THE CHANNEL. PLACE A SECOND ROW 4" BELOW THE FIRST ROW IN A STAGGERED PATTERN.
7. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

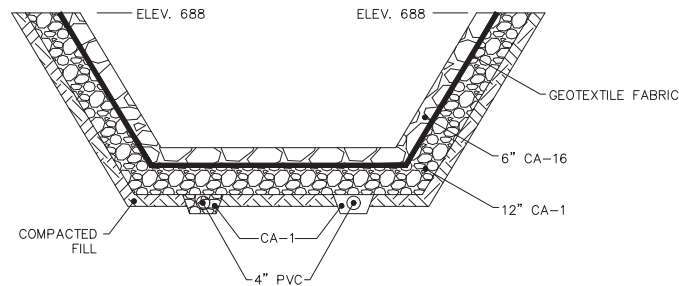
EROSION CONTROL BLANKET DETAIL



INFILTRATION TRENCH

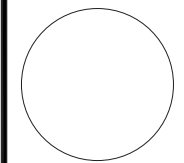


SHALLOW POND DETAIL



DETENTION POND DETAIL

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PROJECT NO: 15.120

SHEET NO:

G&C #19-005

SHEET TITLE: SOIL EROSION CONTROL DETAILS

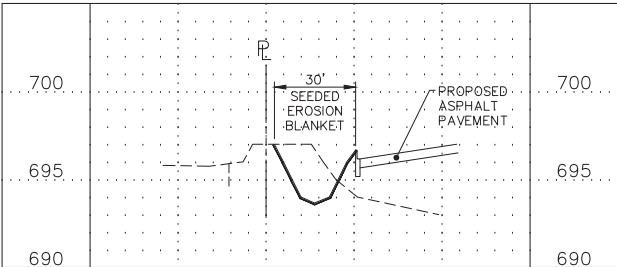
DRAWN BY: DMC

CHECKED BY: FDC

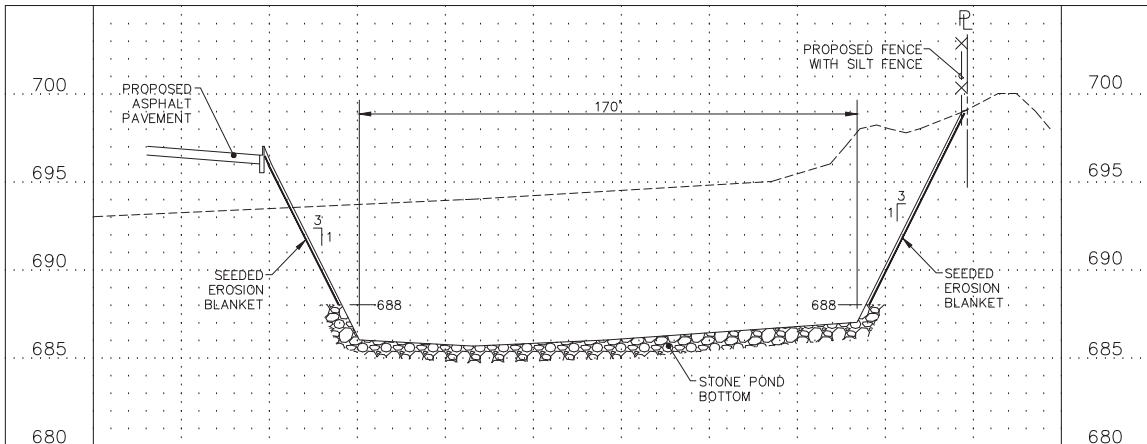
C-5B

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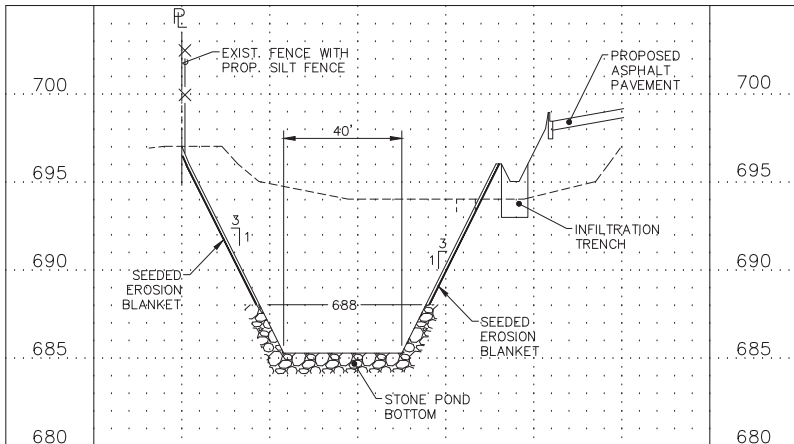
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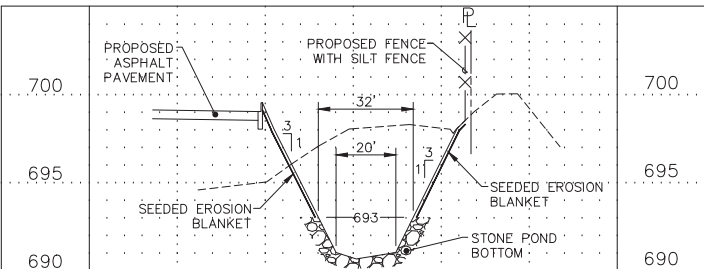
SECTION A-A
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.



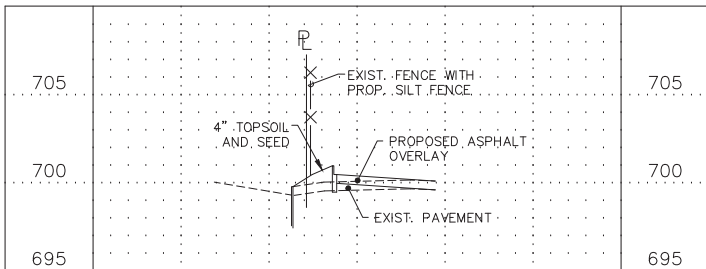
SECTION B-B
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.



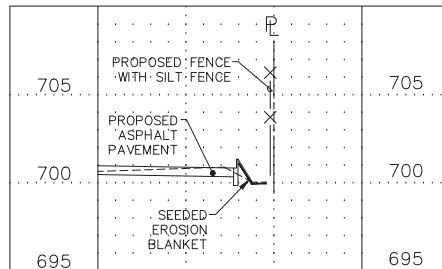
SECTION C-C
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.



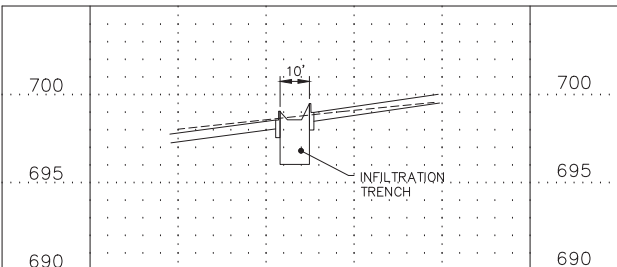
SECTION D-D
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.



SECTION E-E
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.



SECTION F-F
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.



SECTION G-G
SCALE: 1" = 30' HORIZ.
1" = 5' VERT.

NOTE:
FOR SOIL EROSION DETAILS
SEE SHEET C-5B

G&C #19-005

SHEET TITLE: SECTIONS A-A to G-G
DRAWN BY: DMC CHECKED BY: FDC

PROJECT NO: 15.120
SHEET NO:

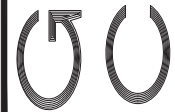
C-6



NEW FACILITY
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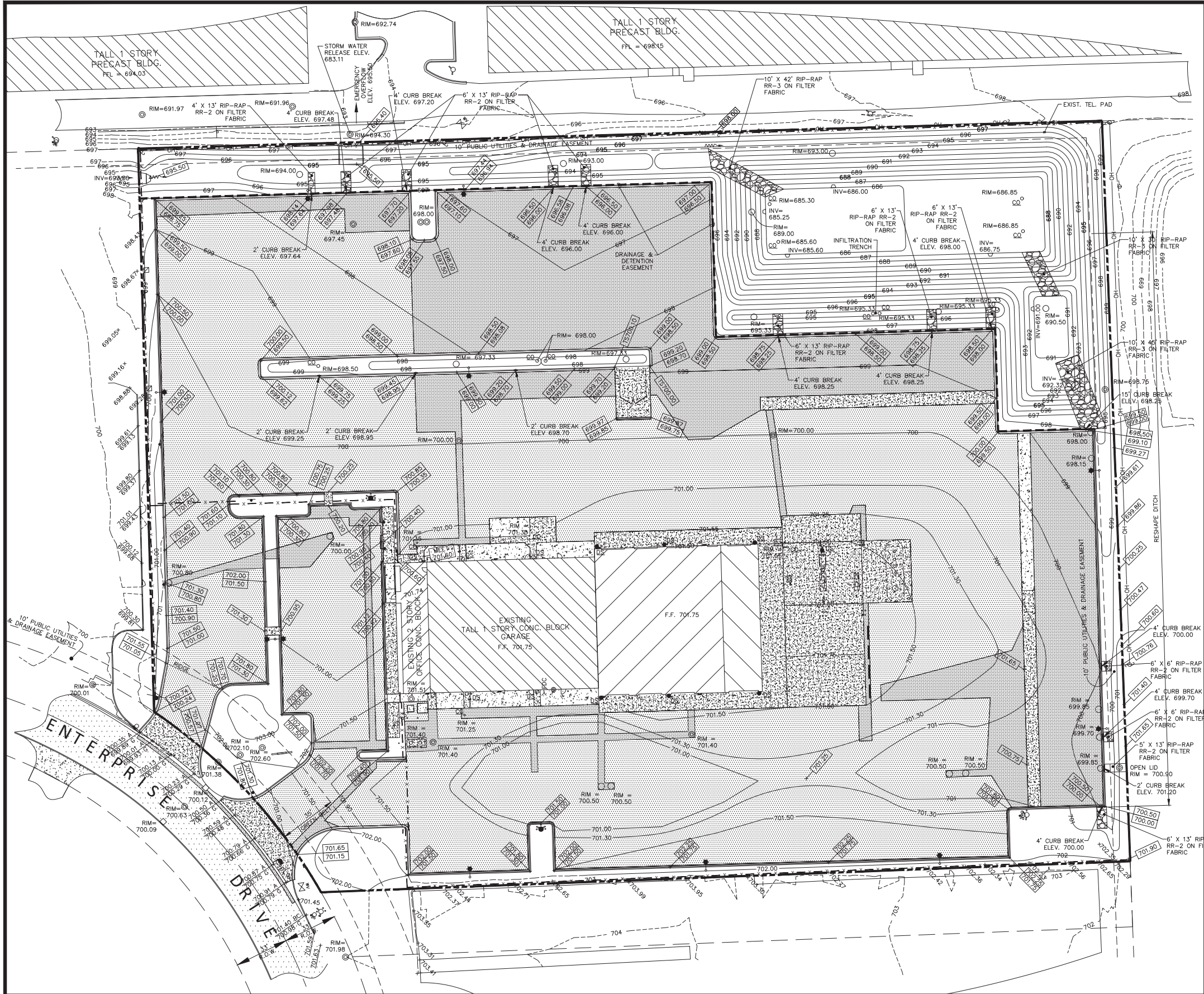
DESCRIPTION: VILLAGE REVIEW
DATE: 05-10-19
VILLAGE REVIEW
DATE: 07-03-19

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PROPOSED SITE GRADING PLAN

~SCALE: 1" = 30'~



PAVEMENT KEY

- EXISTING ASPHALT PAVEMENT
- EXISTING ASPHALT PAVEMENT THAT HAS BEEN MILLED AND RESURFACED
- NEW ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- NEW CONCRETE PAVEMENT

WHEN SHEET IS PRINTED CORRECTLY, THE ABOVE SCALE IS IN 1" INCREMENTS

SHEET TITLE: PROPOSED SITE GRADING PLAN
DRAWN BY: DMC
CHECKED BY: FDC

G&C #19-005

PROJECT NO: 15.120
SHEET NO:

C-8



NEW FACILITY
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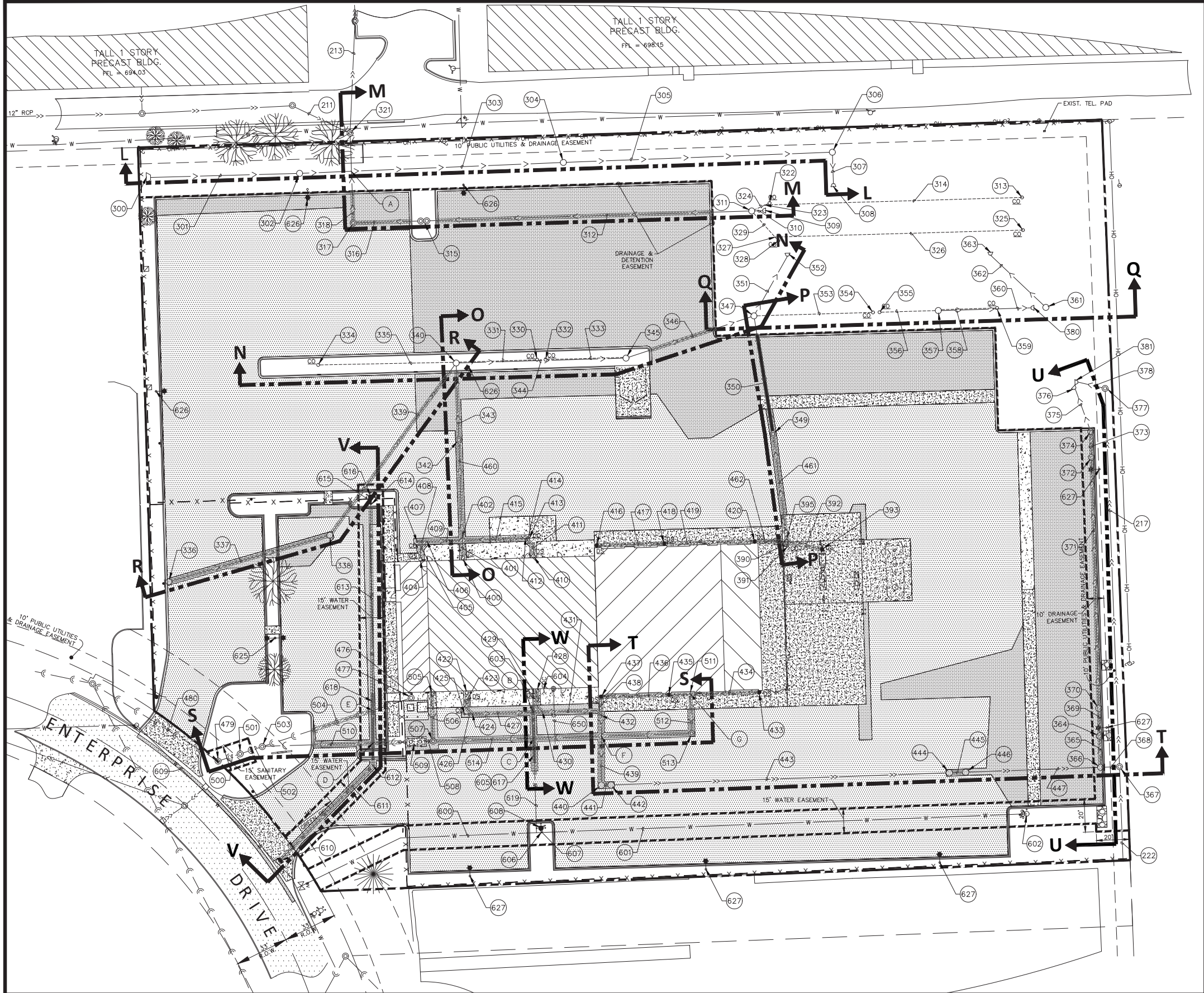
DESCRIPTION: VILLAGE REVIEW
DATE: 05-10-19

VILLAGE REVIEW
DATE: 07-03-19



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PROPOSED SITE UTILITY PLAN

SCALE: 1" = 30'



NOTES:

1. FOR SITE UTILITY PROJECT NOTES SEE SHEET C-10
2. FOR PIPE CROSSING SCHEDULE SEE SHEET C-10
3. FOR PROFILES SEE SHEETS C-11, C-12 and C-13
4. TRENCH BACKFILL (SEE SHEET C-30 FOR DETAIL)

WHEN SHEET IS PRINTED CORRECTLY, THE ABOVE SCALE IS IN 1" INCREMENTS

SHEET TITLE:	PROPOSED SITE UTILITY PLAN		
DRAWN BY:	DMC	CHECKED BY:	FDC

G&C #19-005

PROJECT NO: 15.120

SHEET NO:

C-9



NEW FACILITY
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STORM SEWER:

211. 39 LF EXIST. 24" PVC STORM SEWER @ 1.41%
213. 69 LF EXIST. 30" PVC STORM SEWER @ 1.61%
217. 231 LF EXIST. 24" RCP @ 0.53%
222. EXIST. 24" RCP @ 0.50%
300. PROP. FLARED END
INV (15" N) = 693.50
301. 91 LF PROP. 15" RCP @ 3.10%
302. PROP. 48" CATCH BASIN WITH NEENAH R4353 BEEHIVE GRATE
RIM = 694.00
INV (24" N) = 689.84
INV (15" S) = 690.68
303. 161 LF PROP. 24" RCP @ 0.40%
304. PROP. 48" CATCH BASIN WITH NEENAH R4353 BEEHIVE GRATE
RIM = 693.00
INV (24" N) = 689.20
INV (24" S) = 689.20
305. 164 LF PROP. 24" RCP @ 0.57%
306. PROP. 60" CATCH BASIN WITH NEEHAH R4340B BEEHIVE GRATE
RIM = 693.00
INV (24" S) = 688.27
INV (24" E) = 686.11
307. 19 LF PROP. 24" RCP @ 0.57%
308. PROP. FLARED END SECTION
INV (24" W) = 686.00
309. PROP. FLARED END SECTION
INV (15" S) = 685.25
310. 7 LF PROP. 15" RCP @ 0.20%
311. PROP. 48" CATCH BASIN WITH R4340B BEEHIVE GRATE
RIM = 689.00
INV (15" N) = 685.23
INV (15" S) = 683.75
INV (4" NE) = 683.75
INV (4" NW) = 683.75
312. 200 LF PROP. 15" RCP @ 0.20%
313. PROP. CLEAN-OUT
RIM = 696.85
INV (4" S) = 685.63
314. 157 LF PROP. 4" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 1.14%
315. PROP. 60" RESTRICTOR MANHOLE (SEE SHEET C-32 FOR DETAIL)
RIM = 698.00
INV (15" N) = 683.35
INV (15" S) = 683.33
316. 43 LF PROP. 15" RCP @ 0.20%
317. PROP. 48" STORM MANHOLE
RIM = 697.45
INV (15" N) = 683.26
INV (15" W) = 683.26
318. 55 LF PROP. 15" RCP @ 0.20%
321. MODIFIED EXIST. STORM MANHOLE #212
RIM = 694.30
INV (15" E) = 683.15
INV (24" SW) = 682.70
INV (30" W) = 682.70
322. PROP. CLEAN-OUT
RIM = 698.00
INV (4" SE) = 683.85
323. PROP. INV (4") = 683.84
324. 12 LF PROP. 4" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 0.75%
325. PROP. CLEAN-OUT
RIM = 686.85
INV (4" S) = 685.63
326. 151 LF PROP. 4" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 1.17%
327. PROP. INV (4") = 683.87
328. PROP. CLEAN-OUT
RIM = 685.60
INV (4" SW) = 683.88
329. 24 LF PROP. 4" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 0.54%
330. PROP. CLEAN-OUT
RIM = 698.00
INV (6" S) = 695.50
331. 49 LF PROP. 6" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 2.05%
332. PROP. CLEAN-OUT
RIM = 698.00
INV (6" N) = 695.50
333. 49 LF PROP. 6" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 2.05%
334. PROP. CLEAN-OUT
RIM = 698.50
INV (6" N) = 696.00
335. 84 LF PROP. 6" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 1.78%
336. PROP. 48" CATCH BASIN
RIM = 700.80
INV (12" NW) = 697.30
337. 102 LF PROP. 12" RCP @ 1.00%
338. MODIFIED EXISTING CATCH BASIN (#214)
RIM = 700.00
INV (12" NW) = 695.84
INV (12" SE) = 696.28
339. REMAINING 130 LF OF MODIFIED EXIST. 12" RCP (#215) @ 2.70%

STORM SEWER (CONTINUED):

340. PROP. 48" CATCH BASIN WITH R4340B BEEHIVE GRATE
RIM = 697.33
INV (18" N) = 694.50
INV (6" N) = 694.50
INV (6" S) = 694.50
INV (8" E) = 695.61
INV (12" SE) = 692.36
342. PROP. 48" STORM MANHOLE
RIM = 700.00
INV (8" E) = 697.02
INV (8" W) = 697.02
343. 47 LF PROP. 8" DIP @ 3.00%
344. 104 LF PROP. 18" RCP @ 1.00%
345. PROP. 48" CATCH BASIN WITH R4340B BEEHIVE GRATE
RIM = 697.33
INV (18" S) = 691.32
INV (6" S) = 694.50
INV (18" NW) = 689.44
346. 82 LF PROP. 18" RCP @ 1.00%
347. PROP. 48" CATCH BASIN WITH NEENAH R4353 BEEHIVE GRATE
RIM = 695.33
INV (24" NW) = 686.21
INV (18" SE) = 688.62
INV (8" E) = 691.54
INV (6" N) = 692.50
349. PROP. 48" STORM MANHOLE
RIM = 700.00
INV (8" E) = 696.50
INV (8" W) = 693.00
350. 73 LF PROP. 8" DIP @ 2.00%
351. 42 LF PROP. 24" RCP @ 0.50%
352. PROP. FLARED END SECTION
INV (24" SE) = 685.60
353. 73 LF PROP. 6" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 0.45%
354. PROP. CLEAN-OUT
RIM = 695.33
INV (6" S) = 692.83
355. PROP. CLEAN-OUT
RIM = 695.33
INV (6" N) = 692.83
356. 36 LF PROP. 6" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 0.92%
357. PROP. 48" CATCH BASIN
RIM = 695.33
INV (15" N) = 691.58
INV (6" N) = 692.50
INV (6" S) = 692.50
358. 36 LF PROP. 6" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 0.92%
359. PROP. CLEAN-OUT
RIM = 695.33
INV (6" S) = 692.83
360. 58 LF PROP. 15" RCP @ 1.00%
361. PROP. 60" CATCH BASIN WITH NEENAH R4340B BEEHIVE GRATE
RIM = 690.50
INV (24" SW) = 686.82
362. 47 LF PROP. 24" RCP @ 0.15%
363. PROP. FLARED END SECTION
INV (24" NE) = 686.75
364. PROP. 48" CATCH BASIN
RIM = 699.70
INV (18" E) = 693.85
INV (18" W) = 693.85
365. 19 LF PROP. 18" RCP @ 1.00%
366. PROP. 60" STORM MANHOLE
RIM = 699.85
INV (18" N) = 695.58
INV (18" S) = 695.58
INV (18" W) = 693.95
367. MODIFIED EXIST. 60" STORM MANHOLE #254
RIM = 700.90 OPEN LID
INV (18" S) = 695.52
INV (24" E) = 695.06
INV (24" W) = 695.06
368. REMAINING 12 LF EXIST. 18" RCP #253 @ 0.54%
369. 17 LF PROP. 18" RCP @ 1.00%
370. PROP. 48" CATCH BASIN
RIM = 699.85
INV (18" E) = 693.68
INV (18" W) = 693.68
371. 153 LF PROP. 18" RCP @ 0.80%
372. PROP. 48" CATCH BASIN
RIM = 698.15
INV (18" E) = 692.75
INV (24" W) = 692.50
373. 16 LF PROP. 24" RCP @ 0.40%
374. PROP. 60" CATCH BASIN
RIM = 698.00
INV (24" E) = 692.44
INV (24" SW) = 692.44
375. 28 LF PROP. 30" RCP @ 0.40%
376. PROP. FLARED END SECTION
INV (24" NE) = 692.32
377. PROP. 48" OPEN LID STORM MANHOLE
RIM = 698.75
INV (24" SW) = 692.44
INV (24" E) = 693.84

STORM SEWER (CONTINUED):

378. 20 LF PROP. 24" RCP @ 0.60%
380. PROP. FLARED END SECTION
RIM = 691.00
INV (15" S) = 691.00
381. PROP. FLARED END SECTION
INV (24" NE) = 692.32
390. 5 LF PROP. 8" DIP @ 2.00%
391. PROP. CLEAN-OUT
RIM = 701.55
INV (8" E) = 697.69
392. 23 LF PROP. 8" DIP @ 1.00%
393. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #392
INV (8" SW) = 697.82
395. PROP. INVERTS
INV (8" NW) = 697.59
INV (8" S) = 697.59
INV (8" E) = 697.59
INV (8" W) = 697.59
400. EXIST. DOWNSPOUT, CONNECT TO PROP. PIPE #401
INV (8" W.) = 698.48
401. 13 LF PROP. 8" DIP @ 2.00%
402. PROP. INV = 698.22
404. EXIST. DOWNSPOUT, CONNECT TO PROP. PIPE #405
INV (6" W) = 698.65
405. 13 LF PROP. 6" DIP @ 1.00%
406. PROP. INV = 698.62
407. PROP. CLEAN-OUT
RIM = 701.35
INV (6" N) = 698.68
408. 6 LF PROP. 6" DIP @ 1.00%
409. 22 LF PROP. 6" DIP @ 1.27%
410. EXIST. DOWNSPOUT, CONNECT TO PROP. PIPE #411
INV (6" W) = 698.73
411. 13 LF PROP. 6" DIP @ 1.00%
412. PROP. INV (6") = 698.62
413. PROP. CLEAN-OUT
RIM = 701.30
INV (6" S) = 698.63
414. 2 LF PROP. 6" DIP @ 0.95%
415. 39 LF PROP. 6" DIP @ 1.00%
416. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #417
INV (8" N) = 698.75
417. 41 LF PROP. 8" DIP @ 1.00%
418. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #417 AND #419
INV (#419 8" N) = 698.34
INV (#418 8" S) = 698.34
419. 55 LF PROP. 8" DIP @ 1.00%
420. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #419 AND #421
INV (#421 8" N) = 697.79
INV (#419 8" S) = 697.79
422. EXIST. DOWNSPOUT, CONNECT TO PROP. PIPE #423
INV (8" E @ BLDG.) = 698.78
423. 14 LF PROP. 8" DIP @ 1.00%
424. PROP. INV. (@ PIPE #426 & #427) = 698.64
425. PROP. CLEAN-OUT
RIM = 701.25
INV (8" S) = 698.70
426. 5 LF PROP. 8" DIP @ 1.00%
427. 43 LF PROP. 8" DIP @ 1.00%
428. EXIST. DOWNSPOUT, CONNECT TO PROP. PIPE #429
INV (8" E @ BLDG.) = 698.36
429. 14 LF PROP. 8" DIP @ 1.00%
430. PROP. INV (@ PIPE #427 & # 431) = 698.22
431. 37 LF PROP. 8" DIP @ 1.00%
432. PROP. INV (@ PIPE #439) = 697.85
433. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #438 & #439
INV (8" S) = 698.93
434. 55 LF PROP. 8" DIP @ 1.00%
435. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #434 AND #436
INV (#434 8" N) = 698.38
INV (#436 8" S) = 698.38
436. 41 LF PROP. 8" DIP @ 1.00%
437. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #436 AND #438
INV (#436 8" N) = 697.96
INV (#438 12" E) = 697.96
438. 11 LF PROP. 12" DIP STORM SEWER @ 1.00%
439. 43 LF PROP. 12" DIP STORM SEWER @ 1.40%
440. PROP. 24" CATCH BASIN
RIM = 700.50
INV (15" N) = 697.36
INV (12" W) = 697.36
441. 6 LF PROP. 15" RCP @ 0.60%
442. PROP. 24" CATCH BASIN
RIM = 700.50
INV (15" N) = 697.32
INV (15" S) = 697.32
443. REMAINING 207 LF EXIST. 15" RCP (#251) @ 0.60%

STORM SEWER (CONTINUED):

444. MODIFIED EXIST. 48" CATCH BASIN (#252)
RIM = 700.50
INV (18" N) = 696.08
INV (15" S) = 696.08
445. 10 LF PROP. 18" RCP @ 0.54%
446. PROP. 48" CATCH BASIN
RIM = 700.50
INV (18" N) = 696.03
INV (18" S) = 696.03
447. REMAINING 82 LF EXIST. 18" RCP (#253) @ 0.54%

460. 60 LF PROP. 8" DIP @ 2.00%
461. 64 LF PROP. 8" DIP @ 2.00%
462. 20 LF PROP. 8" DIP @ 1.00%

SANITARY SEWER:

476. 3 LF EXIST. 6" SANITARY SEWER
477. EXIST. SANITARY MANHOLE
RIM = 701.51
INV (6" W) = 696.96
INV (6" SE) = 696.96

479. EXIST. SANITARY MANHOLE
RIM = 701.38
INV (6" NW) = 693.17
INV (6" SW) = 693.17
480. 90 LF EXIST. 6" PVC @ 3.76%

500. REMAINING 14 LF OF EXIST. 6" PVC SANITARY SEWER (#478) @ 3.05%
501. PROP. 60" SANITARY INSPECTION MANHOLE
RIM = 702.10
INV (6" NW) = 693.66
INV (6" SE) = 693.66
502. REMAINING 14 LF OF EXIST. 6" PVC SANITARY SEWER (#478) @ 3.05%
503. PROP. 48" SANITARY MANHOLE
RIM = 702.60
INV (6" N) = 694.09
INV (6" NW) = 694.09
INV (6" SE) = 694.09
504. REMAINING 95 LF OF EXIST. 6" PVC SANITARY SEWER (#478) @ 3.05%
505. INV (6" E @ BLDG) = 696.79
506. 30 LF PROP. 6" PVC SDR26 @ 2.00%
507. PROP. 48" SANITARY MANHOLE
RIM = 701.40
INV (6" N) = 695.44
INV (6" S) = 695.49
INV (6" W) = 696.49

508. 5 LF PROP. 6" PVC SDR26 @ 1.00%
509. PROP. 1000 GALLON OIL/WATER SEPARATOR
RIM = 701.45
INV (6" N) = 695.44
INV (6" S) = 695.11
510. 85 LF PROP. 6" PVC SDR26 @ 1.00%
511. PROP. INV (6" E @ BLDG.) = 697.34
512. 25 LF PROP. 6" PVC SDR26 @ 1.00%
513. PROP. 48" SANITARY MANHOLE
RIM = 701.40
INV (6" S) = 697.07
INV (6" W) = 697.07
514. 158 LF PROP. 6" PVC SDR26 @ 1.00%

WATER:

600. EXIST. 8" DIWM
601. EXIST. 8" DIWM
602. MODIFIED EXIST. FIRE HYDRANT RAISE FLANGE TO ELEV. 702.15 PROVIDE 2 BOLLARDS
603. REMAINING 12 LF EXIST. 6" DIWM CONNECTED TO BUILDING 6" DIWM #605
604. EXIST. FIRE DEPARTMENT CONNECTION
605. 40 LF PROP. 6" DIWM (SEE SHEET C-13 PROFILE W-W)
606. PROP. 8" X 6" CUT-IN TEE
607. 3 LF PROP. 6" DIWM
608. PROP. FIRE HYDRANT WITH 3 BOLLARDS (SEE SHEET C-32 FOR DETAIL)
609. EXIST. 12" DIWM
610. PROP. 60" VALVE VAULT WITH 12" X 8" PRESSURE CONNECTION WITH 8" VALVE
RIM = 700.87
611. 80 LF PROP. 8" DIWM
612. PROP. 135' BEND (TYP. ____)
613. 160 LF PROP. 8" DIWM
614. PROP. 8" X 6" CONCENTRIC REDUCER
615. 4 LF PROP. 6" DIWM
616. PROP. FIRE HYDRANT WITH 3 BOLLARDS (SEE SHEET C-32 FOR DETAIL)
617. 40 LF PROP. CASING FOR 6" DIWM
618. 40 LF PROP. CASING FOR 8" DIWM
619. REMAINING 30 LF EXIST. 6" DIWM

ELECTRICAL:

625. MODIFIED EXIST. SINGLE STREET LIGHT TO A DOUBLE (SEE ELECTRICAL PLANS)
626. PROP. STREET LIGHT (TYP. 4 DURING PHASE 1) (SEE ELECTRICAL PLANS)
627. PROP. STREET LIGHT (TYP. 5 DURING PHASE 3) (SEE ELECTRICAL PLANS)

GAS:

650. EXIST. GAS MAIN (SEE "M" MECHANICAL DRAWINGS)

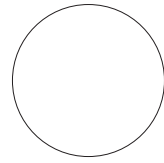
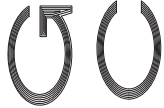
PIPE CROSSING SCHEDULE

MARK	PIPE TYPE AND SIZE	ELEVATION	DIFFERENCE
A	24" RCP STORM SEWER (#303)	B/P 689.84	5.33'
	15" RCP STORM SEWER (#318)	T/P 684.51	
B	8" DIP STORM SEWER (#427)	B/P 698.29	4.20'
	6" DI WATER LINE (#605)	T/P 694.09	
C	6" PVC SANITARY SEWER (#514)	B/P 696.09	2.00'
	6" DI WATER LINE (#605)	T/P 694.09	
D	6" PVC SANITARY SEWER (#510)	B/P 694.74	1.55'
	8" DI WATER LINE (#613)	T/P 693.19	
E	6" PVC SANITARY SEWER (#504)	B/P 696.13	2.94'
	8" DI WATER LINE (#613)	T/P 693.19	
F	12" DIP STORM SEWER (#439)	B/P 697.70	0.69'
	6" PVC SANITARY SEWER (#514)	T/P 697.01	
G	8" DIP STORM SEWER (#434)	B/P 698.93	1.09'
	6" PVC SANITARY SEWER (#512)	T/P 697.84	

G&C CONSULTING ENGINEERS, INC.

PROFESSIONAL DESIGN FIRM
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184-00805

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gandcengs@bcglobal.net



NEW FACILITY
1290 ENTERPRISE DR., ROMEOVILLE, IL

DESCRIPTION: VILLAGE REVIEW
DATE: 05-10-19
VILLAGE REVIEW
DATE: 07-03-19

PROJECT NO: 15.120

SHEET NO:

G&C #19-005

C-10

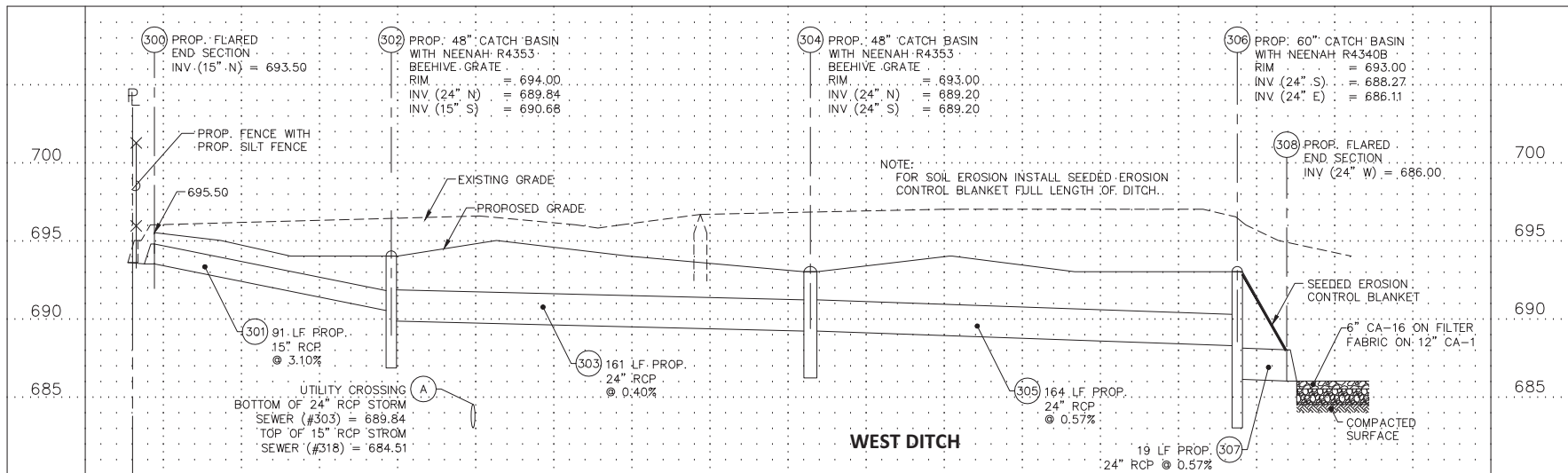
SHEET TITLE: PROPOSED SITE UTILITY PROJECT NOTES

DRAWN BY: DMC
CHECKED BY: FDC

WHEN SHEET IS PRINTED CORRECTLY, THE ABOVE SCALE IS IN 1" INCREMENTS

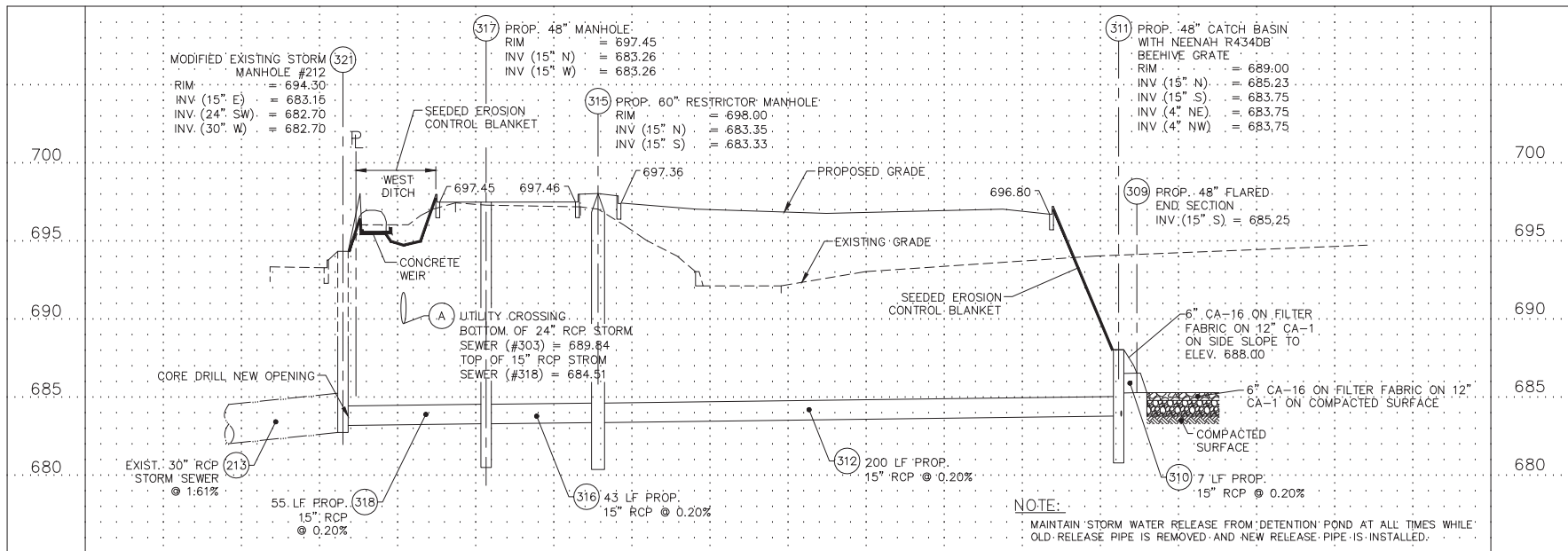
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PROFILE L-L

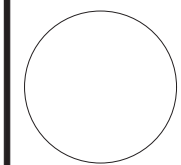
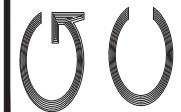
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1" = 5' VERT.



PROFILE M-M

SCALE: 1" = 30' HORIZ.
1" = 5' VERT.

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Ryder
NEW FACILITY
1290 ENTERPRISE DR., ROMEVILLE, IL

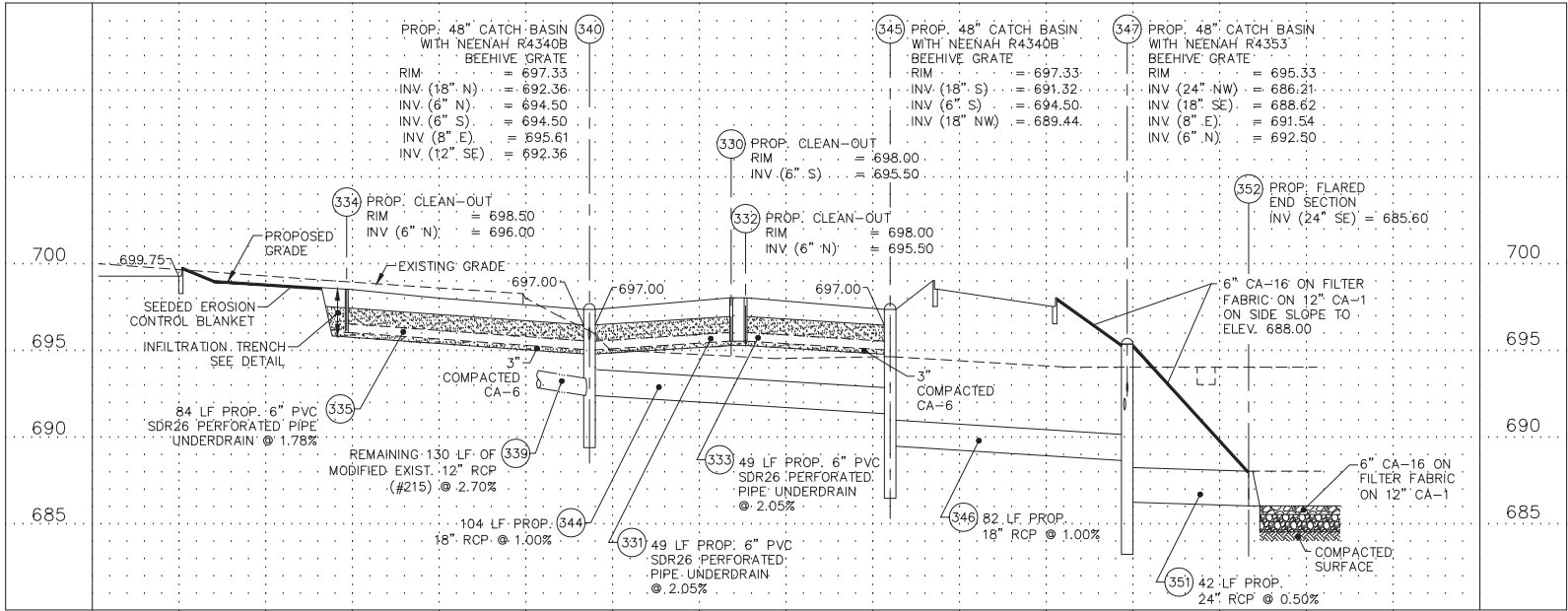
DESCRIPTION:	VILLAGE REVIEW	VILLAGE REVIEW	VILLAGE REVIEW
DATE:	05-10-19	07-03-19	

PROJECT NO: 15.120
SHEET NO:

G&C #19-005

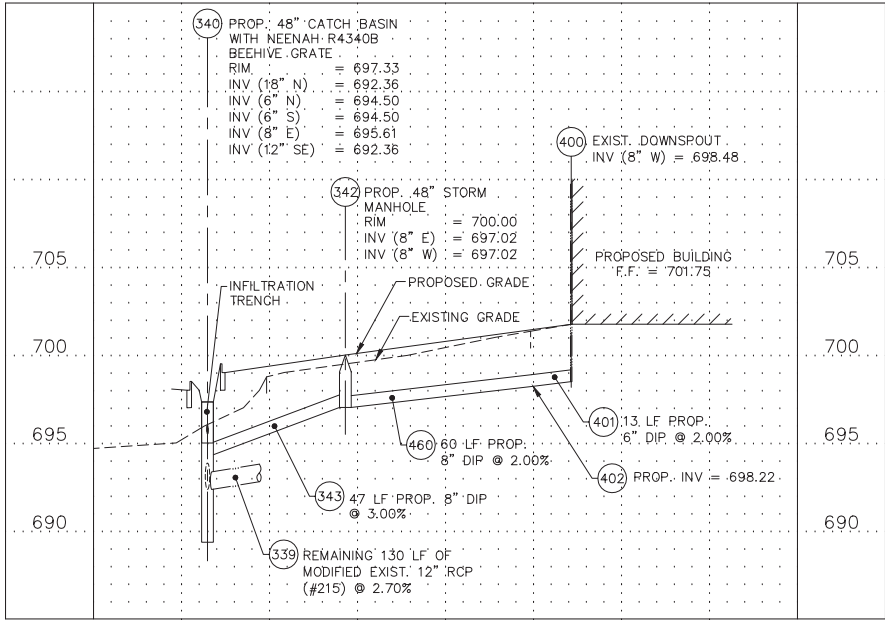
SHEET TITLE: UTILITY PROFILES L-L to M-M
DRAWN BY: DMC
CHECKED BY: FDC

C-11



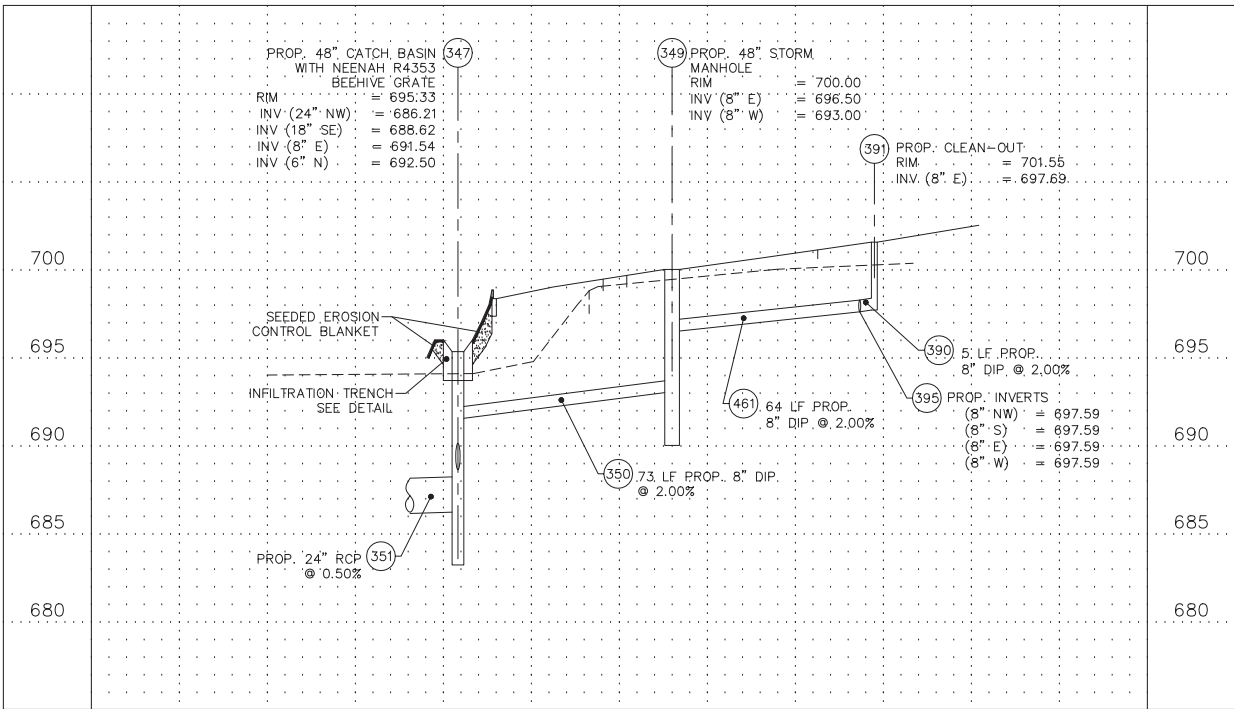
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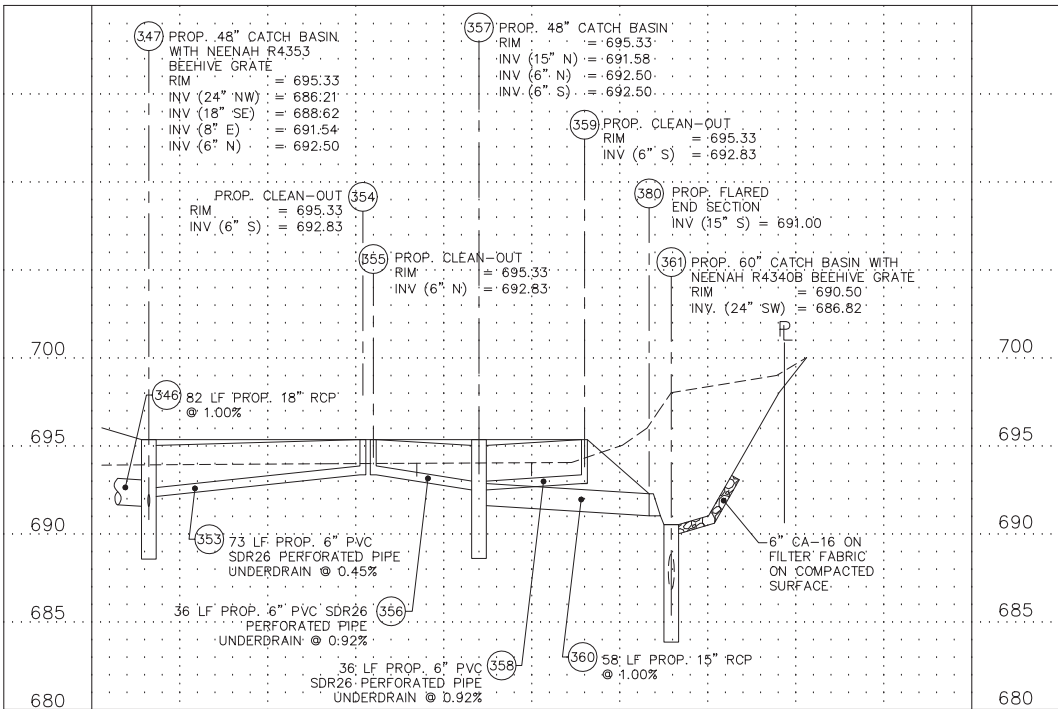
PROFILE O-O

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1" = 5' VERT.



PROFILE P-P

SCALE: 1" = 30' HORIZ.
1" = 5' VERT.



PROFILE Q-Q

SCALE: 1" = 30' HORIZ.
1" = 5' VERT.

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WHEN SHEET IS PRINTED CORRECTLY, THE ABOVE SCALE IS IN 1" INCREMENTS

G&C #19-005

SHEET TITLE:	UTILITY PROFILES N-N to Q-Q		
DRAWN BY:	DMC	CHECKED BY:	FDC

PROJECT NO: 15.120
SHEET NO:

C-12

1290 ENTERPRISE DR., ROMEVILLE, IL

DESCRIPTION: VILLAGE REVIEW
DATE: 05-10-19

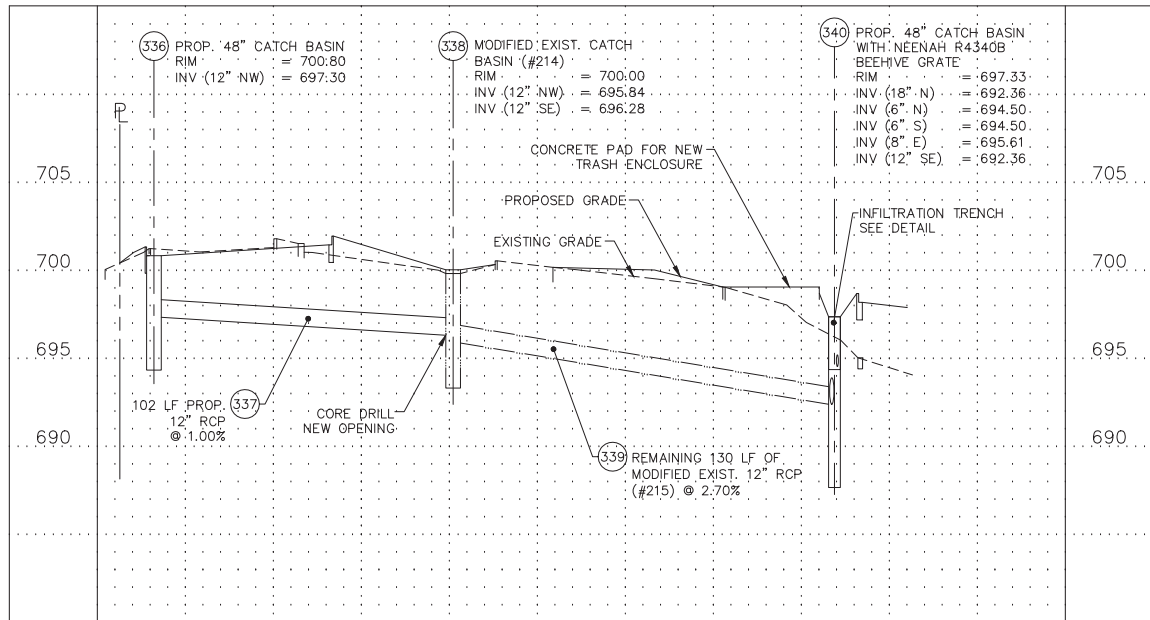
VILLAGE REVIEW
DATE: 07-03-19



NEW FACILITY

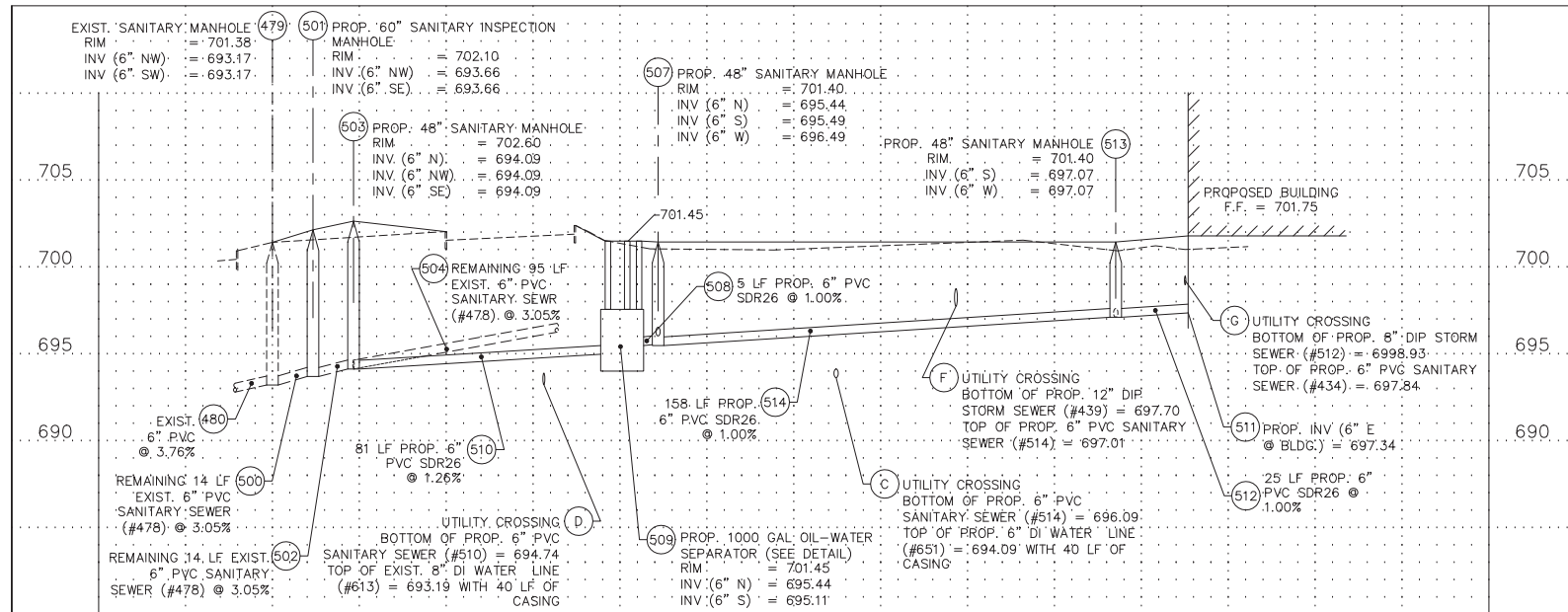
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ENGINEERS, INC.
PROFESSIONAL DESIGN FIRM
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60010

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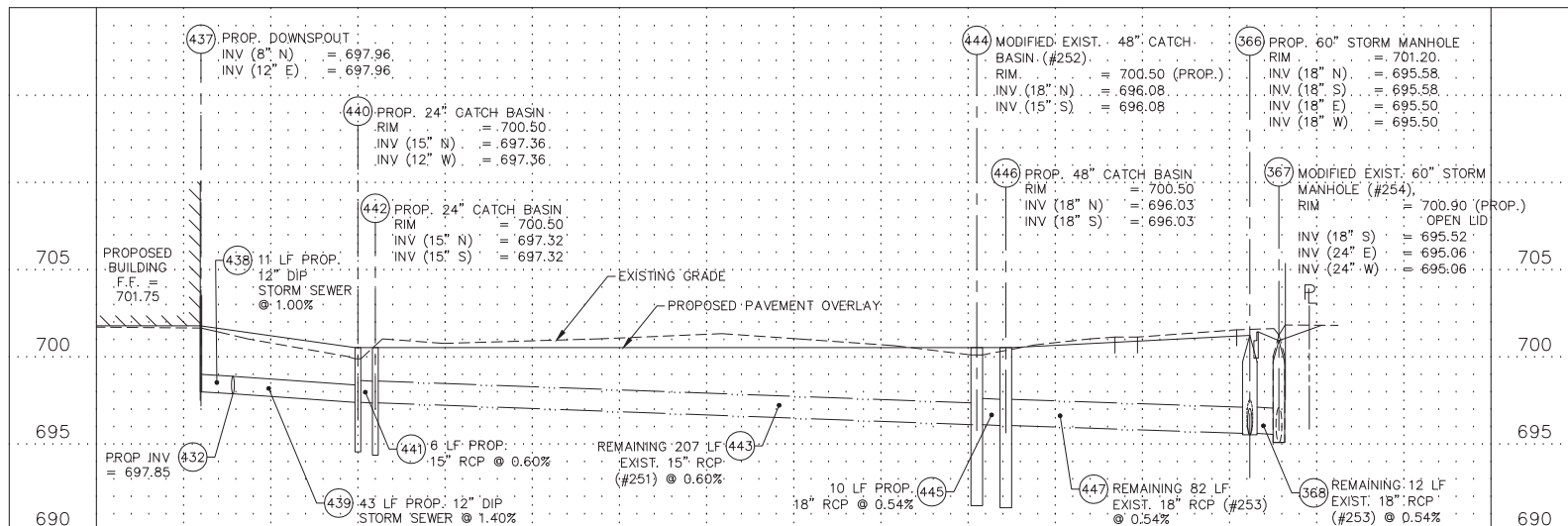
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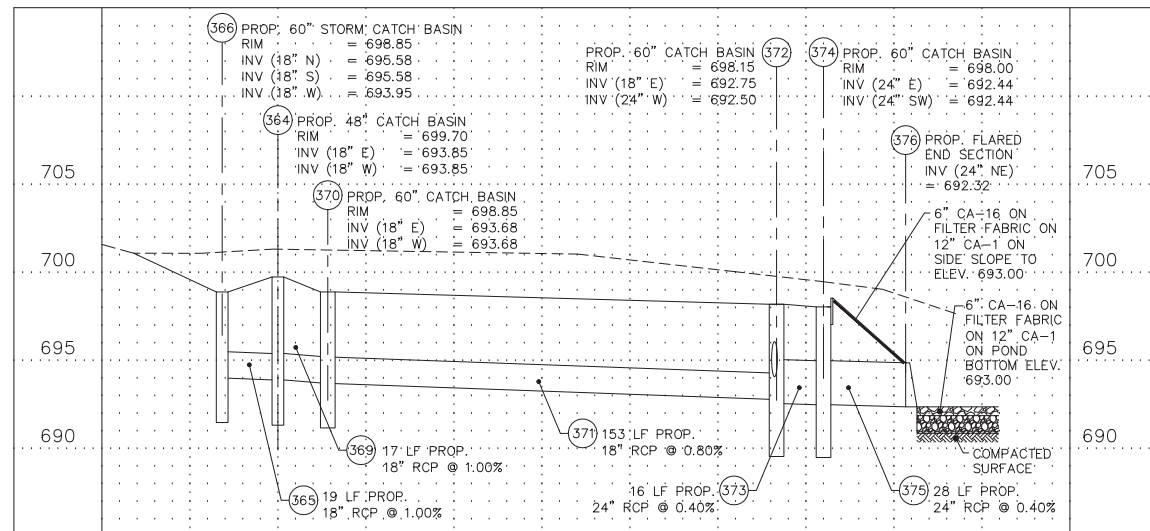
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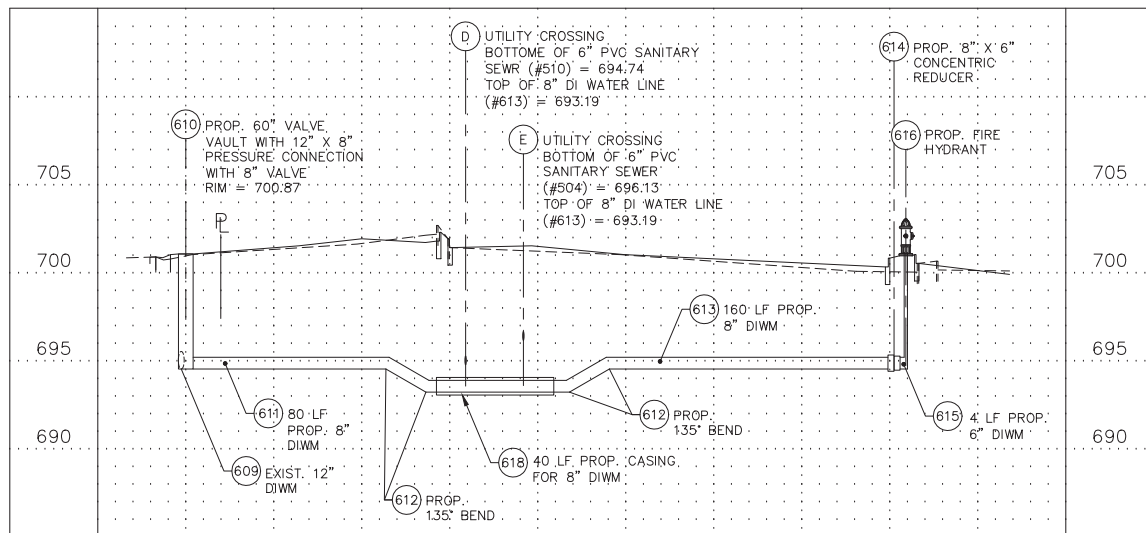
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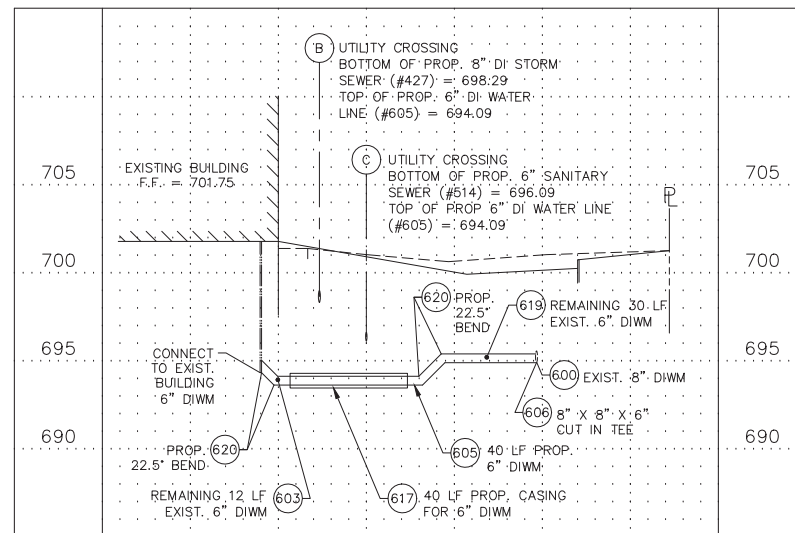
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PROFILE V-V

SCALE: 1" = 30' HORIZ.
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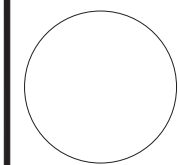
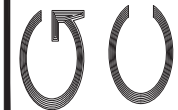


PROFILE W-W

SCALE: 1" = 30' HORIZ.
1" = 5' VERT.

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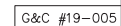
NEW FACILITY
1290 ENTERPRISE DR., ROMEVILLE, IL

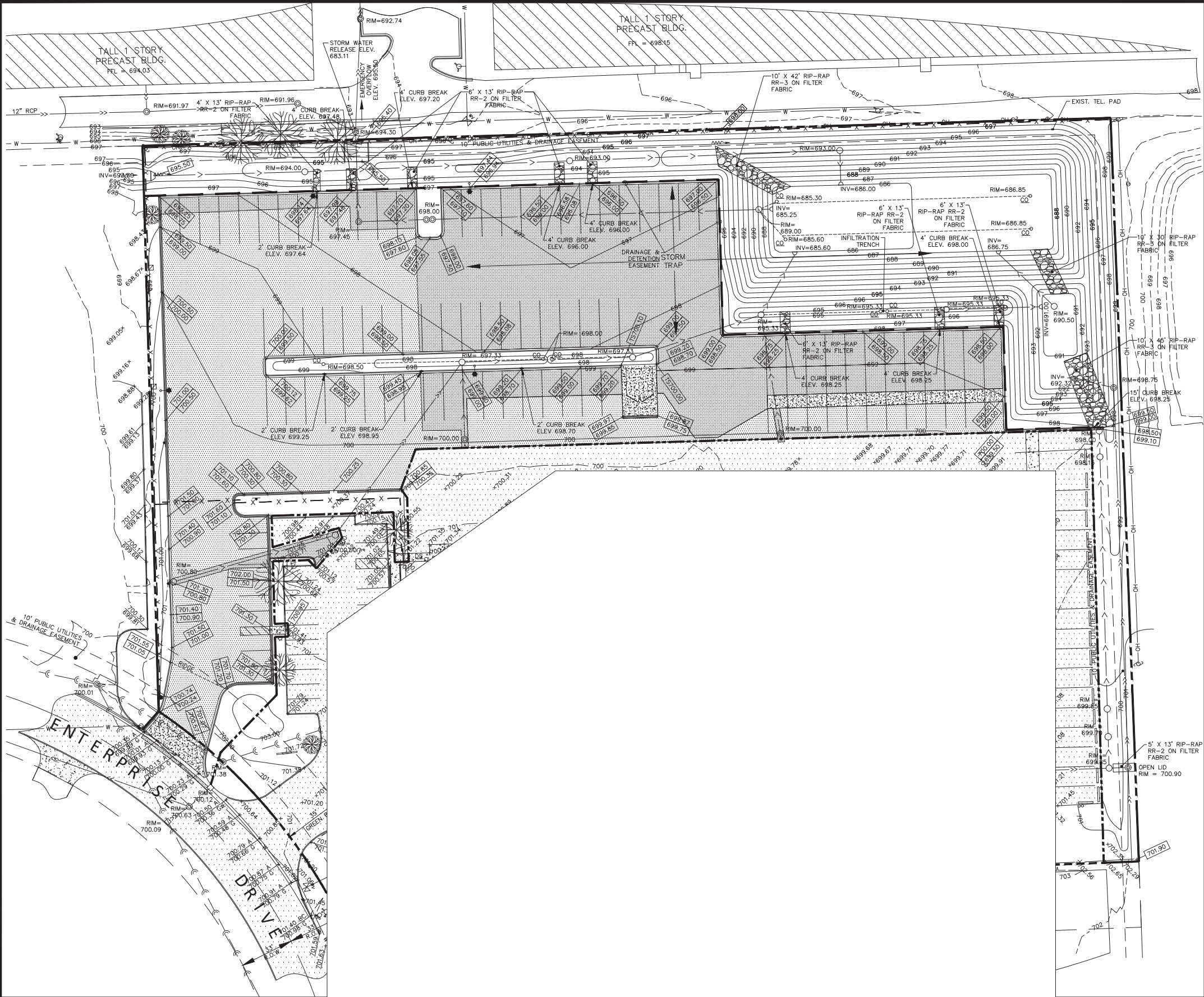
PROJECT NO: 15.120
SHEET NO:

G&C #19-005

SHEET TITLE: UTILITY PROFILES R-R to W-W
DRAWN BY: DMC
CHECKED BY: FDC

C-13





PHASE 1 - PROPOSED SITE PLAN

~SCALE: 1" = 30'~



ITEMS OF WORK:

CONSTRUCTION SCHEDULE SHALL BE PREPARED BY CONTRACTOR IN WRITING AND SHALL BE APPROVED BY OWNER PRIOR TO ANY CONSTRUCTION ACTIVITY.

MAINTAIN CLOSE COORDINATION WITH OWNER DURING ALL PHASES OF CONSTRUCTION. RYDER CLIENT SERVICES SHALL BE MAINTAINED DURING CONSTRUCTION.

CHANGES TO CONSTRUCTION SCHEDULE SHALL BE APPROVED BY OWNER PRIOR TO IMPLEMENTATION.

PHASE 1

1. REMOVE OR MODIFY EXISTING STORM SEWERS DRAINING INTO NEW STORM TRAP FROM OFFSITE AREAS FROM THE SOUTH AND EAST.
2. REVISE STORM SEWERS THAT PROVIDE STORM RELEASE FROM DETENTION AREA.
3. PROVIDE STORM WATER EROSION CONTROL PROCEDURES WHILE MASS GRADING THE NEW STORM TRAP AND NEW PAVEMENT AREAS.
4. SAW-CUT EXISTING ASPHALT PAVEMENT TO PROVIDE NEW AND REVISED STORM SEWERS.
5. SAW-CUT EXISTING PAVEMENT EDGE TO INSTALL NEW CONCRETE CURB AND GUTTER.
6. CONSTRUCT NEW PAVEMENT, MILL EXISTING PAVEMENT, AND PROVIDE TEMPORARY PAVEMENT STRIPING.
7. PROVIDE NEW FENCE AND GATES.

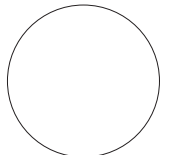
PAVEMENT KEY

- EXISTING ASPHALT PAVEMENT
- EXISTING ASPHALT PAVEMENT THAT HAS BEEN MILLED AND RESURFACED
- NEW ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- NEW CONCRETE PAVEMENT



NEW FACILITY
1290 ENTERPRISE DR., ROMEVILLE, IL

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DESCRIPTION: VILLAGE REVIEW
DATE: 05-10-19

VILLAGE REVIEW
DATE: 07-03-19

PROJECT NO: 15.120
SHEET NO:

C-15

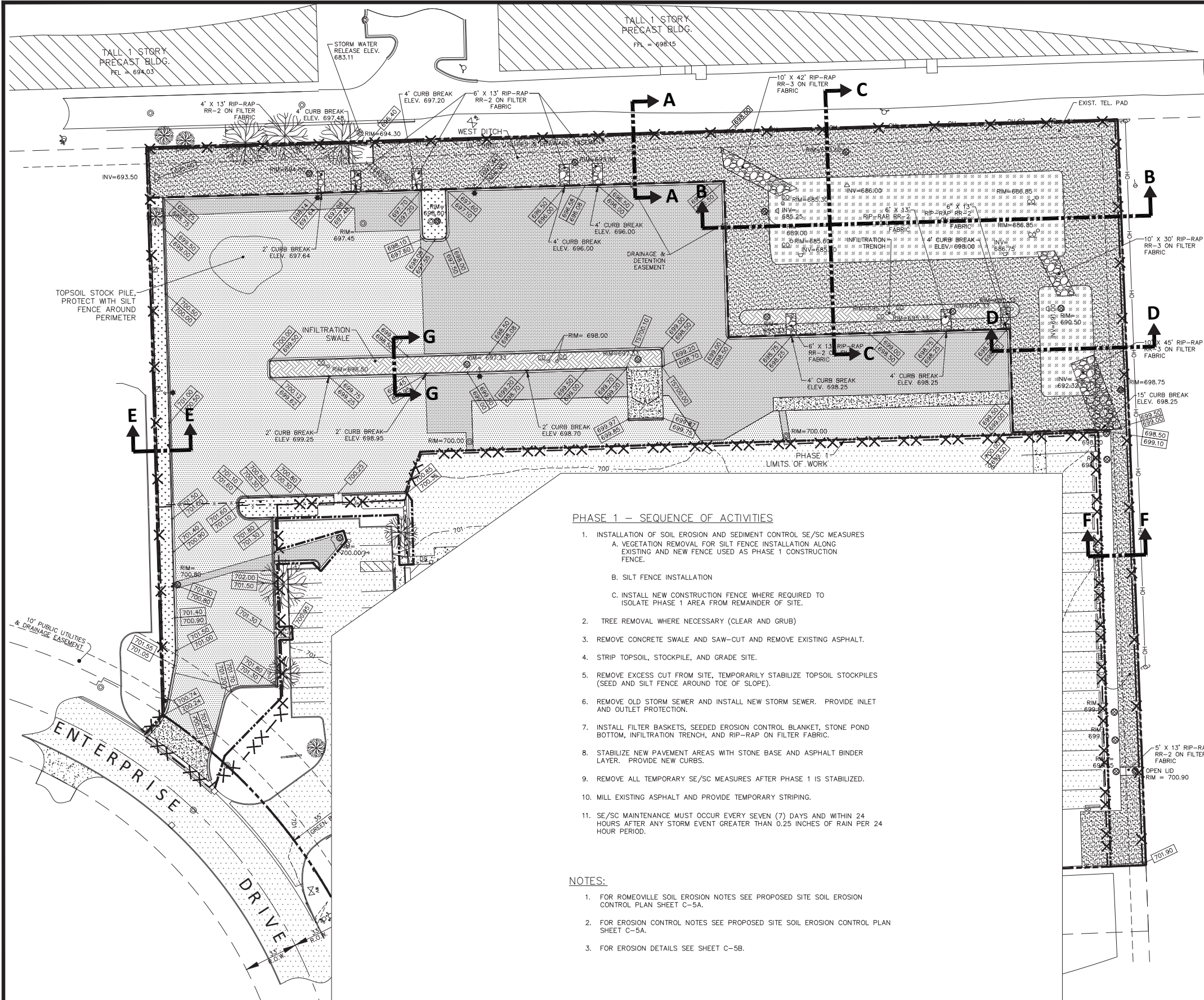
SHEET TITLE: PHASE 1 - PROPOSED SITE PLAN
DRAWN BY: DMC
CHECKED BY: FDC

G&C #19-005

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WHEN SHEET IS PRINTED CORRECTLY, THE ABOVE SCALE IS IN 1" INCREMENTS

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PHASE 1 - SOIL EROSION CONTROL PLAN

~SCALE: 1" = 30'~



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.

FRANK D. CHILDERS
ILLINOIS PROFESSIONAL ENGINEER NO. 0062-024465
MY LICENSE EXPIRES NOVEMBER 30, 2017

LEGEND

	PHASE 1 QTY.
---XX---	LIMITS OF WORK
XX	SILT FENCE ON CONSTRUCTION FENCE..... 1014 LF
XX	SILT FENCE ON FENCE..... 1395 LF
⊗	FILTER BASKET..... 18 EA
ASPHALT PAVEMENT FULL DEPTH.....	31120 SF
ASPHALT PAVEMENT MILLED.....	38368 SF
CONCRETE PAVEMENT.....	2408 SF
SEEDED EROSION CONTROL BLANKET.....	34481 SF
STONE POND BOTTOM.....	11132 SF
INFILTRATION TRENCH.....	3807 SF
GRASS/GROUND COVER.....	3879 SF
RIP-RAP ON FILTER FABRIC.....	1451 SF

PHASE 1 - SEQUENCE OF ACTIVITIES

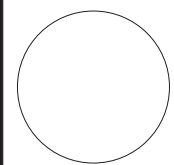
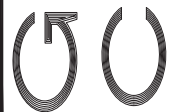
- INSTALLATION OF SOIL EROSION AND SEDIMENT CONTROL SE/SC MEASURES
 - VEGETATION REMOVAL FOR SILT FENCE INSTALLATION ALONG EXISTING AND NEW FENCE USED AS PHASE 1 CONSTRUCTION FENCE.
 - SILT FENCE INSTALLATION
 - INSTALL NEW CONSTRUCTION FENCE WHERE REQUIRED TO ISOLATE PHASE 1 AREA FROM REMAINDER OF SITE.
- TREE REMOVAL WHERE NECESSARY (CLEAR AND GRUB)
- REMOVE CONCRETE SWALE AND SAW-CUT AND REMOVE EXISTING ASPHALT.
- STRIP TOPSOIL, STOCKPILE, AND GRADE SITE.
- REMOVE EXCESS CUT FROM SITE, TEMPORARILY STABILIZE TOPSOIL STOCKPILES (SEED AND SILT FENCE AROUND TOE OF SLOPE).
- REMOVE OLD STORM SEWER AND INSTALL NEW STORM SEWER. PROVIDE INLET AND OUTLET PROTECTION.
- INSTALL FILTER BASKETS, SEEDED EROSION CONTROL BLANKET, STONE POND BOTTOM, INFILTRATION TRENCH, AND RIP-RAP ON FILTER FABRIC.
- STABILIZE NEW PAVEMENT AREAS WITH STONE BASE AND ASPHALT BINDER LAYER. PROVIDE NEW CURBS.
- REMOVE ALL TEMPORARY SE/SC MEASURES AFTER PHASE 1 IS STABILIZED.
- MILL EXISTING ASPHALT AND PROVIDE TEMPORARY STRIPING.
- SE/SC MAINTENANCE MUST OCCUR EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.25 INCHES OF RAIN PER 24 HOUR PERIOD.

NOTES:

- FOR ROMEOVILLE SOIL EROSION NOTES SEE PROPOSED SITE SOIL EROSION CONTROL PLAN SHEET C-5A.
- FOR EROSION CONTROL NOTES SEE PROPOSED SITE SOIL EROSION CONTROL PLAN SHEET C-5A.
- FOR EROSION DETAILS SEE SHEET C-5B.

WHEN SHEET IS PRINTED CORRECTLY, THE ABOVE SCALE IS IN 1" INCREMENTS

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NEW FACILITY
1290 ENTERPRISE DR., ROMEOVILLE, IL

DESCRIPTION: VILLAGE REVIEW 05-10-19
DATE: 07-03-19

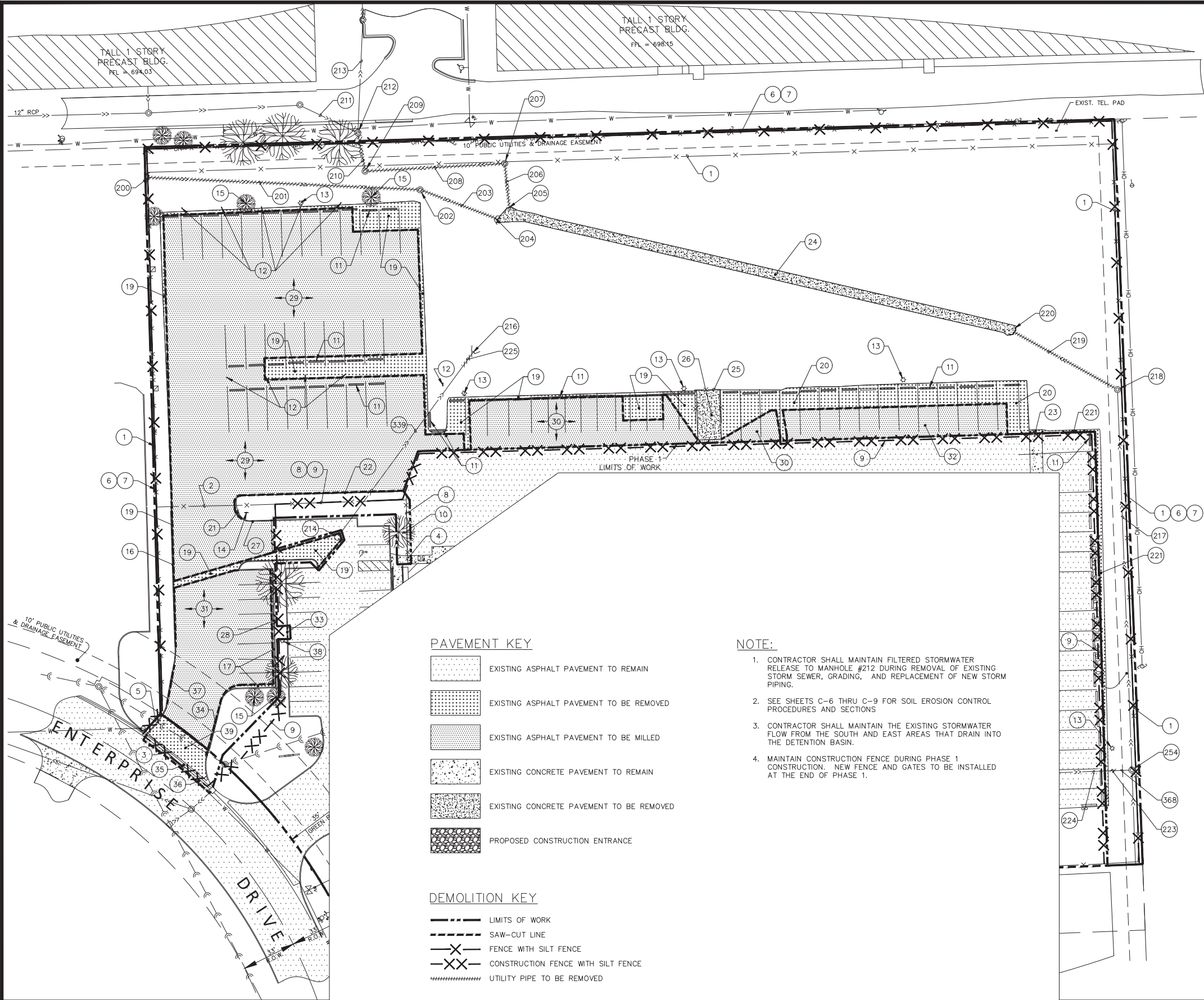
PROJECT NO: 15.120
SHEET NO:

G&C #19-005

SHEET TITLE: PHASE 1 - SOIL EROSION CONTROL PLAN
DRAWN BY: DMC
CHECKED BY: FDC

C-16

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PAVEMENT KEY

- EXISTING ASPHALT PAVEMENT TO REMAIN
- EXISTING ASPHALT PAVEMENT TO BE REMOVED
- EXISTING ASPHALT PAVEMENT TO BE MILLED
- EXISTING CONCRETE PAVEMENT TO REMAIN
- EXISTING CONCRETE PAVEMENT TO BE REMOVED
- PROPOSED CONSTRUCTION ENTRANCE

DEMOLITION KEY

- LIMITS OF WORK
- SAW-CUT LINE
- FENCE WITH SILT FENCE
- CONSTRUCTION FENCE WITH SILT FENCE
- UTILITY PIPE TO BE REMOVED

NOTE:

- CONTRACTOR SHALL MAINTAIN FILTERED STORMWATER RELEASE TO MANHOLE #212 DURING REMOVAL OF EXISTING STORM SEWER, GRADING, AND REPLACEMENT OF NEW STORM PIPING.
- SEE SHEETS C-6 THRU C-9 FOR SOIL EROSION CONTROL PROCEDURES AND SECTIONS
- CONTRACTOR SHALL MAINTAIN THE EXISTING STORMWATER FLOW FROM THE SOUTH AND EAST AREAS THAT DRAIN INTO THE DETENTION BASIN.
- MAINTAIN CONSTRUCTION FENCE DURING PHASE 1 CONSTRUCTION. NEW FENCE AND GATES TO BE INSTALLED AT THE END OF PHASE 1.

PHASE 1 - DEMOLITION PLAN

~SCALE: 1" = 30'~

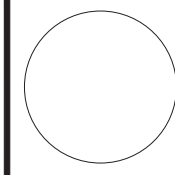
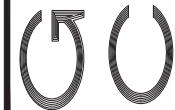


PHASE 1 DEMOLITION PROJECT NOTES:

- REMOVE 1224 LF EXISTING FENCE
- REMOVE EXISTING GATE
- 51 LF PROPOSED CONSTRUCTION GATE
- REMOVE EXISTING GATE
- 24 LF PROP. 6' HIGH CONSTRUCTION CHAIN LINK FENCE WITH SILT FENCE IN FRONT OF IT
- 1371 LF PROP. 6' HIGH CHAIN LINK FENCE
- 1371 PROP. SILT FENCE INSTALL IN FRONT OF PROP. CHAIN LINK FENCE
- REMOVE 129 LF EXISTING FENCE
- 964 LF PROP. 6' HIGH CONSTRUCTION CHAIN LINK FENCE WITH SILT FENCE IN FRONT OF IT
- 39 LF TOTAL PROP. FENCE AND GATE
- REMOVE EXISTING WHEEL STOP (TYP. 60)
- REMOVE EXISTING ELECTRICAL BOX (TYP. 10) (SEE ELECTRICAL PLANS)
- REMOVE EXISTING LIGHT POLE (TYP. 5) (SEE ELECTRICAL PLANS)
- REMOVE EXISTING SIGN
- REMOVE EXISTING TREE (TYP. 4)
- SAW-CUT AND REMOVE 140 LF EXISTING BARRIER CURB
- SAW-CUT AND REMOVE 131 SF EXISTING ASPHALT PAVEMENT
- REMOVE 140 LF EXISTING FENCE
- SAW-CUT AND REMOVE 4502 SF EXISTING ASPHALT PAVEMENT
- SAW-CUT AND REMOVE 9413094 SF EXISTING ASPHALT PAVEMENT
- SAW-CUT AND REMOVE 14 SF EXISTING ASPHALT PAVEMENT
- SAW-CUT AND REMOVE 26 SF EXISTING ASPHALT PAVEMENT
- SAW-CUT AND REMOVE 18 SF EXISTING CONCRETE PAVEMENT
- REMOVE 1902 SF EXISTING CONCRETE PAVEMENT
- REMOVE 56 LF EXISTING CONCRETE
- REMOVE 424 SF EXISTING CONCRETE
- SAW-CUT AND REMOVE 24 LF EXISTING BARRIER CURB
- SAW-CUT AND REMOVE 201 LF EXISTING BARRIER CURB
- 27007 SF EXISTING ASPHALT PAVEMENT TO BE MILLED 2"
- 3922 SF EXISTING ASPHALT PAVEMENT TO BE MILLED 2"
- 4869 SF EXISTING ASPHALT PAVEMENT TO BE MILLED 2"
- 2504 SF EXISTING ASPHALT PAVEMENT TO BE MILLED 2"
- SAW-CUT AND REMOVE 5LF EXIST. BARRIER CURB
- SAW-CUT AND REMOVE 7 SF EXISTING ASPHALT PAVEMENT
- SAW-CUT AND REMOVE 511 SF EXISTING ASPHALT PAVEMENT
- SAW-CUT AND REMOVE 102 LF EXISTING DEPRESSED CURB
- SAW-CUT AND REMOVE 3 SF EXISTING ASPHALT
- EXIST. LIGHT TO BE MODIFIED IN PHASE 3
- SAW-CUT AND REMOVE 571 SF EXISTING ASPHALT PAVEMENT

- EXISTING FLARED END SECTION TO BE REMOVED
- REMOVE 165 LF EXISTING 12" RCP STORM SEWER
- REMOVE EXISTING OPEN LID MANHOLE
- REMOVE 49 LF EXISTING 12" RCP STORM SEWER
- REMOVE EXISTING FLARED END SECTION
- REMOVE EXISTING FLARED END SECTION
- REMOVE 27 LF EXISTING 12" RCP STORM SEWER
- REMOVE EXISTING MANHOLE
- REMOVE 85 LF EXISTING 12" RCP STORM SEWER
- REMOVE EXISTING MANHOLE
- REMOVE 24 LF EXISTING 12" RCP STORM SEWER
- 39 LF EXIST. 24" PVC TO REMAIN AS IS
- EXISTING MANHOLE TO BE MODIFIED AS FOLLOWS:
(SEE ITEM #321 ON SHEETS C-7 AND C-8)
RIM (EXIST.) = 694.30 (TO REMAIN AS IS)
INV (EXIST. 12" E) = 690.70 (TO BE PLUGGED)
INV (PROP. 18" E) = 683.04 (TO BE CORE DRILLED, WITH NEW RUBBER BOOT)
INV (24" SW) = 682.70 (TO REMAIN AS IS)
INV (30" W) = 682.70 (TO REMAIN AS IS)
- 69 LF EXIST. 30" PVC @ 1.61% TO REMAIN AS IS
- REMOVE EXISTING FLARED END SECTION
- EXISTING 231 LF 24" RCP STORM SEWER TO REMAIN AS IS
- EXISTING MANHOLE TO BE REMOVED
- 72 LF 24" RCP STORM SEWER, CAP FOR FUTURE EXTENSION IN PHASE 1
- REMOVE EXISTING FLARED END SECTION
- SAW-CUT AND REMOVE 634 SF EXISTING ASPHALT PAVEMENT
- CUT AND REMOVE 5 LF FROM EXISTING 18 REC #253 FOR INSTALLATION OF PROP. MANHOLE #366 (SEE PHASE 1 - UTILITY PLAN, SHEET C-20)
- REMAINING 90 LF EXISTING 18" RCP #253
- CUT AND REMOVE 11 LF FROM NW END OF EXISTING 12" RCP #215
- EXISTING 60" STORM MANHOLE TO BE MODIFIED (SEE PHASE 1 - UTILITY PLAN, SHEET C-20, # 367 FOR MODIFICATIONS)
- REMAINING 130 LF OF MODIFIED EXISTING 12" RCP #215
- REMAINING 12 LF EXISTING 18" RCP #253

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NEW FACILITY
1290 ENTERPRISE DR., ROMEVILLE, IL

DESCRIPTION: VILLAGE REVIEW
DATE: 05-10-19
VILLAGE REVIEW
DATE: 07-03-19

PROJECT NO: 15.120
SHEET NO:

G&C #19-005

SHEET TITLE: PHASE 1 - DEMOLITION PLAN
DRAWN BY: DMC
CHECKED BY: FDC

C-17



1. ALL DIMENSIONS ARE TO FACE-OF-CURB UNLESS OTHERWISE STATED.
2. MAINTAIN CONSTRUCTION FENCE DURING PHASE 1 CONSTRUCTION. NEW FENCE AND GATES TO BE INSTALLED AT THE END OF PHASE 1.
3. PROVIDE TEMPORARY STRIPING, SEE SHEET C-14
4. FOR ASPHALT PAVEMENT DETAIL SEE SHEET C-30
5. FOR CURB DETAIL SEE SHEET C-30
6. FOR PERIMETER CURB DETAIL SEE SHEET C-30
7. FOR UTILITY TRENCH SEE SHEET C-30
8. NEW 2" SURFACE TO BE INSTALLED IN PHASE 3
9. 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. A MINIMUM OF 3' FULL-DEPTH REMOVAL OF PAVEMENT WILL BE REQUIRED ALONG THE FACE OF ANY NEW CURB TO ENSURE PROPER COMPACTION.

NEW FACILITY
1290 ENTERPRISE DR., ROMEOVILLE, IL

C-18



PAVEMENT KEY

-
- EXISTING ASPHALT PAVEMENT TO REMAIN
- EXISTING MILLED PAVEMENT
- PROPOSED ASPHALT PAVEMENT WITHOUT SURFACE COURSE
- EXISTING CONCRETE PAVEMENT TO REMAIN
- PROPOSED CONCRETE PAVEMENT

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NEW FACILITY
1290 ENTERPRISE DR., ROMEOVILLE, IL

DESCRIPTION:	VILLAGE REVIEW	VILLAGE REVIEW
DATE:	05-10-19	07-03-19

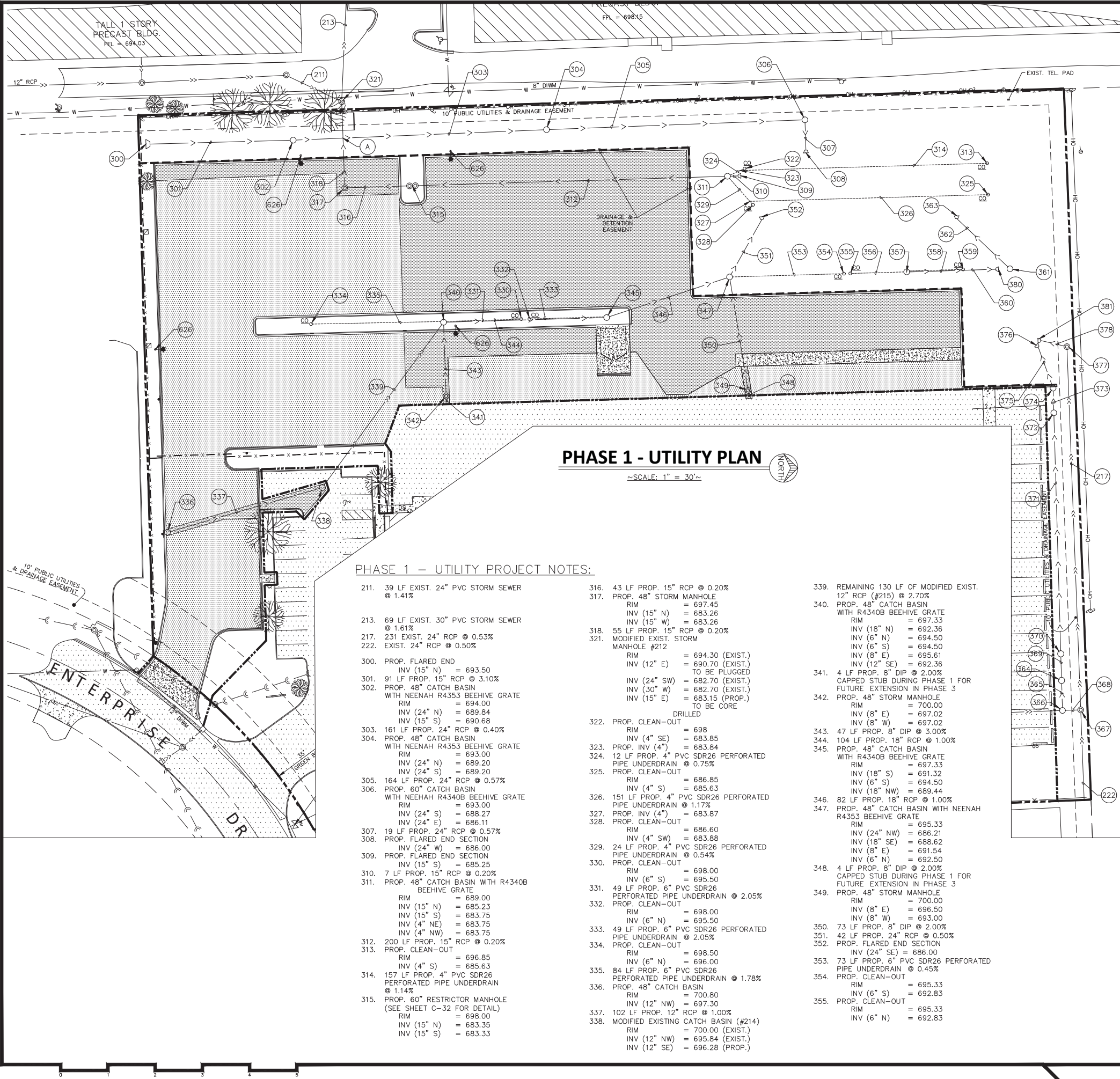
PROJECT NO:	15.120
SHEET NO:	

G&C #19-005

SHEET TITLE:	PHASE 1 - GRADING PLAN		
DRAWN BY:	DMC	CHECKED BY:	FDC

C-19

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PHASE 1 - UTILITY PLAN

~SCALE: 1" = 30'~

PHASE 1 - UTILITY PROJECT NOTES:

211. 39 LF EXIST. 24" PVC STORM SEWER @ 1.41%
213. 69 LF EXIST. 30" PVC STORM SEWER @ 1.61%
217. 231 EXIST. 24" RCP @ 0.53%
222. EXIST. 24" RCP @ 0.50%
300. PROP. FLARED END
INV (15" N) = 693.50
301. 91 LF PROP. 15" RCP @ 3.10%
302. PROP. 48" CATCH BASIN WITH NEENAH R4353 BEEHIVE GRATE
RIM = 694.00
INV (24" N) = 689.84
INV (15" S) = 690.68
303. 161 LF PROP. 24" RCP @ 0.40%
304. PROP. 48" CATCH BASIN WITH NEENAH R4353 BEEHIVE GRATE
RIM = 693.00
INV (24" N) = 689.20
INV (24" S) = 689.20
305. 164 LF PROP. 24" RCP @ 0.57%
306. PROP. 60" CATCH BASIN WITH NEENAH R4340B BEEHIVE GRATE
RIM = 693.00
INV (24" S) = 688.27
INV (24" E) = 686.11
307. 19 LF PROP. 24" RCP @ 0.57%
308. PROP. FLARED END SECTION
INV (24" W) = 686.00
309. PROP. FLARED END SECTION
INV (15" S) = 685.25
310. 7 LF PROP. 15" RCP @ 0.20%
311. PROP. 48" CATCH BASIN WITH R4340B BEEHIVE GRATE
RIM = 689.00
INV (15" N) = 685.23
INV (15" S) = 683.75
INV (4" NE) = 683.75
INV (4" NW) = 683.75
312. 200 LF PROP. 15" RCP @ 0.20%
313. PROP. CLEAN-OUT
RIM = 696.85
INV (4" S) = 685.63
314. 157 LF PROP. 4" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 1.14%
315. PROP. 60" RESTRICTOR MANHOLE (SEE SHEET C-32 FOR DETAIL)
RIM = 698.00
INV (15" N) = 683.35
INV (15" S) = 683.33

316. 43 LF PROP. 15" RCP @ 0.20%
317. PROP. 48" STORM MANHOLE
RIM = 697.45
INV (15" N) = 683.26
INV (15" W) = 683.26
318. 55 LF PROP. 15" RCP @ 0.20%
321. MODIFIED EXIST. STORM MANHOLE #212
RIM = 694.30 (EXIST.)
INV (12" E) = 690.70 (EXIST.)
TO BE PLUGGED
INV (24" SW) = 682.70 (EXIST.)
INV (30" W) = 682.70 (EXIST.)
INV (15" E) = 683.15 (PROP.)
TO BE CORE DRILLED
322. PROP. CLEAN-OUT
RIM = 698
INV (4" SE) = 683.85
323. PROP. INV (4") = 683.84
324. 12 LF PROP. 4" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 0.75%
325. PROP. CLEAN-OUT
RIM = 686.85
INV (4" S) = 685.63
326. 151 LF PROP. 4" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 1.17%
327. PROP. INV (4") = 683.87
328. PROP. CLEAN-OUT
RIM = 686.60
INV (4" SW) = 683.88
329. 24 LF PROP. 4" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 0.54%
330. PROP. CLEAN-OUT
RIM = 698.00
INV (6" S) = 695.50
331. 49 LF PROP. 6" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 2.05%
332. PROP. CLEAN-OUT
RIM = 698.00
INV (6" N) = 695.50
333. 49 LF PROP. 6" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 2.05%
334. PROP. CLEAN-OUT
RIM = 698.50
INV (6" N) = 696.00
335. 84 LF PROP. 6" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 1.78%
336. PROP. 48" CATCH BASIN
RIM = 700.80
INV (12" NW) = 697.30
337. 102 LF PROP. 12" RCP @ 1.00%
338. MODIFIED EXISTING CATCH BASIN (#214)
RIM = 700.00 (EXIST.)
INV (12" NW) = 695.84 (EXIST.)
INV (12" SE) = 696.28 (PROP.)

339. REMAINING 130 LF OF MODIFIED EXIST. 12" RCP (#215) @ 2.70%
340. PROP. 48" CATCH BASIN WITH R4340B BEEHIVE GRATE
RIM = 697.33
INV (18" N) = 692.36
INV (6" N) = 694.50
INV (6" S) = 694.50
INV (8" E) = 695.61
INV (12" SE) = 692.36
341. 4 LF PROP. 8" DIP @ 2.00% CAPPED STUB DURING PHASE 1 FOR FUTURE EXTENSION IN PHASE 3
342. PROP. 48" STORM MANHOLE
RIM = 700.00
INV (8" E) = 697.02
INV (8" W) = 697.02
343. 47 LF PROP. 8" DIP @ 3.00%
344. 104 LF PROP. 18" RCP @ 1.00%
345. PROP. 48" CATCH BASIN WITH R4340B BEEHIVE GRATE
RIM = 697.33
INV (18" S) = 691.32
INV (6" S) = 694.50
INV (18" NW) = 689.44
346. 82 LF PROP. 18" RCP @ 1.00%
347. PROP. 48" CATCH BASIN WITH NEENAH R4353 BEEHIVE GRATE
RIM = 695.33
INV (24" NW) = 686.21
INV (18" SE) = 688.62
INV (8" E) = 691.54
INV (6" N) = 692.50
348. 4 LF PROP. 8" DIP @ 2.00% CAPPED STUB DURING PHASE 1 FOR FUTURE EXTENSION IN PHASE 3
349. PROP. 48" STORM MANHOLE
RIM = 700.00
INV (8" E) = 696.50
INV (8" W) = 693.00
350. 73 LF PROP. 8" DIP @ 2.00%
351. 42 LF PROP. 24" RCP @ 0.50%
352. PROP. FLARED END SECTION
INV (24" SE) = 686.00
353. 73 LF PROP. 6" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 0.45%
354. PROP. CLEAN-OUT
RIM = 695.33
INV (6" S) = 692.83
355. PROP. CLEAN-OUT
RIM = 695.33
INV (6" N) = 692.83

356. 36 LF PROP. 6" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 0.92%
357. PROP. 48" CATCH BASIN
RIM = 695.33
INV (15" N) = 691.58
INV (6" N) = 692.50
INV (6" S) = 692.50
358. 36 LF PROP. 6" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 1.00%
359. PROP. CLEAN-OUT
RIM = 695.33
INV (6" S) = 692.83
360. 58 LF PROP. 15" RCP @ 1.00%
361. PROP. 60" CATCH BASIN WITH NEENAH R4340B BEEHIVE GRATE
RIM = 690.50
INV (24" SW) = 686.82
362. 47 LF PROP. 24" RCP @ 0.15%
363. PROP. FLARED END SECTION
INV (24" NE) = 686.75
364. PROP. 48" CATCH BASIN
RIM = 699.70
INV (18" S) = 693.85
INV (18" W) = 693.85
365. 19 LF PROP. 18" RCP @ 1.00%
366. PROP. 60" CATCH BASIN
RIM = 698.85
INV (18" N) = 695.58
INV (18" S) = 695.58
INV (18" W) = 693.95
367. MODIFIED EXIST. 60" STORM MANHOLE #254
RIM = 701.22 (EXIST.)
RIM = 700.90 (PROP. OPEN LID)
INV (18" S) = 695.52 (EXIST.)
INV (24" E) = 695.06 (EXIST.)
INV (24" W) = 695.06 (EXIST.)
368. REMAINING 12 LF EXIST. 18" RCP #253 @ 0.54%
369. 17 LF PROP. 18" RCP @ 1.00%
370. PROP. 48" CATCH BASIN
RIM = 699.85
INV (18" E) = 693.68
INV (18" W) = 693.68
371. 153 LF PROP. 18" RCP @ 0.80%
372. PROP. 6048" CATCH BASIN
RIM = 698.15
INV (18" E) = 692.75
INV (24" W) = 692.50
373. 16 LF PROP. 24" RCP @ 0.40%
374. PROP. 60" CATCH BASIN
RIM = 698.00
INV (24" E) = 692.44
INV (24" SW) = 692.44
375. 28 LF PROP. 24" RCP @ 0.40%
376. PROP. FLARED END SECTION
INV (24" NE) = 692.32
377. PROP. 48" OPEN LID STORM MANHOLE
RIM = 698.75
INV (24" SW) = 692.44
INV (24" E) = 693.84
378. 20 LF PROP. 24" RCP @ 0.60%
380. PROP. FLARED END SECTION
INV (15" S) = 691.00
381. PROP. FLARED END SECTION
INV (24" NE) = 692.32
626. PROP. STREET LIGHT (TYP. 4) (SEE ELECTRICAL PLANS)

NOTES:

- CONTRACTOR SHALL MAINTAIN FILTERED STORMWATER RELEASE TO MANHOLE #321 DURING REMOVAL OF EXISTING STORM SEWER AND REPLACEMENT OF NEW STORM PIPING.
- SEE ELECTRICAL PLANS FOR PHOTOMETRIC PLAN SHOWING HEIGHT, NUMBER AND ORIENTATION OF PROPOSED LUMINARIES LIGHTING LEVELS IN FOOT-CANDLES AT GROUND LEVEL IN CONFORMANCE WITH THE VILLAGE'S ORDINANCE.
- ALL STORM SEWER FRAMES AND GRATES/LIDS SHALL BE MARKED WITH "DUMP NO WASTE" AND DRAINS TO CREEK.

PIPE CROSSING SCHEDULE

MARK	PIPE TYPE AND SIZE	ELEVATION	DIFFERENCE
A	24" RCP STORM SEWER (#303)	B/P 689.84	5.33'
	15" RCP STORM SEWER (#318)	T/P 684.51	



NEW FACILITY
1290 ENTERPRISE DR., ROMEVILLE, IL

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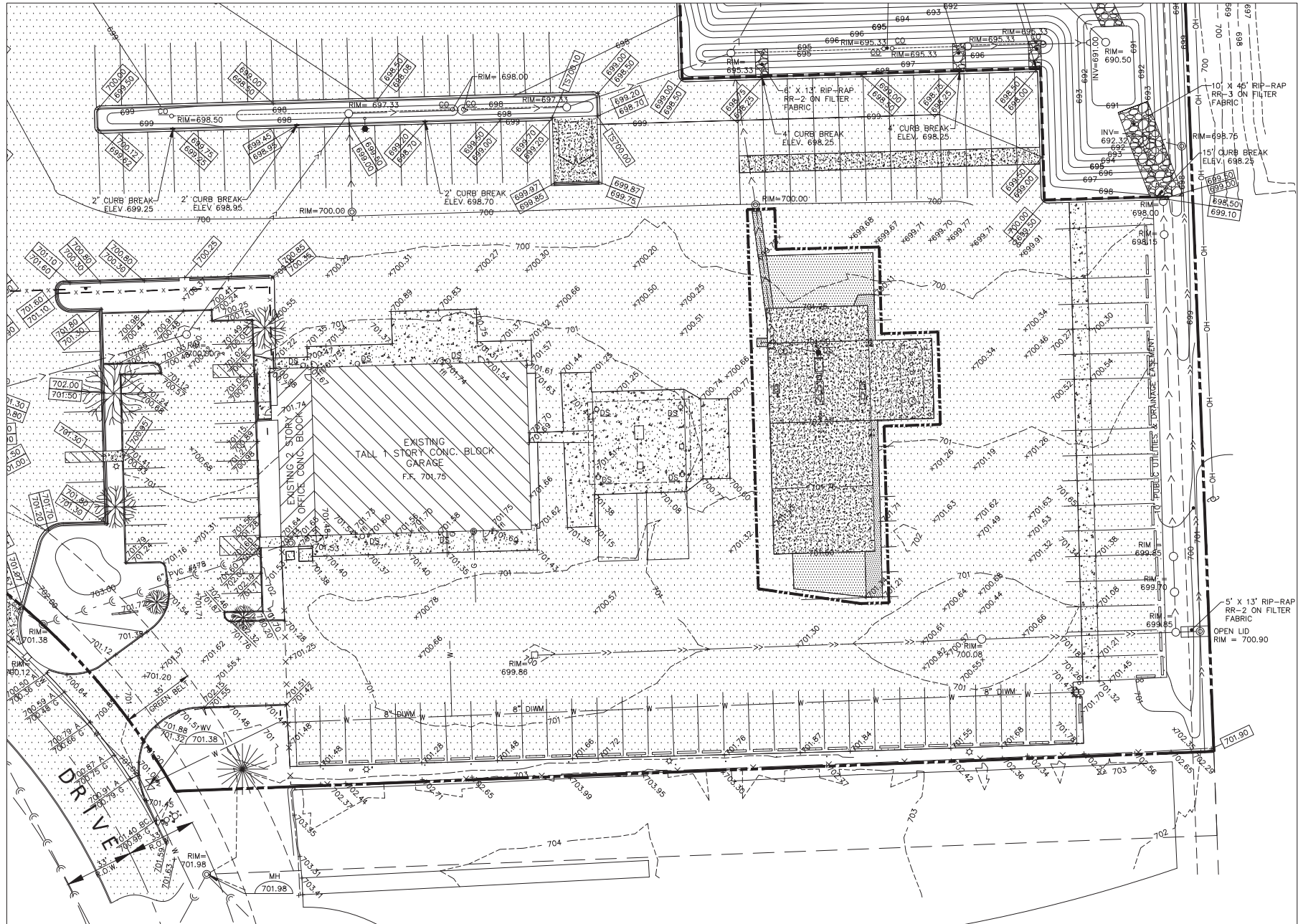
PROJECT NO: 15.120
SHEET NO:

G&C #19-005

SHEET TITLE: PHASE 1 - UTILITY PLAN

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C-20



PHASE 2 - PROPOSED SITE PLAN

~SCALE: 1" = 30'~



PAVEMENT KEY	
	EXISTING ASPHALT PAVEMENT
	EXISTING ASPHALT PAVEMENT THAT HAS BEEN MILLED AND RESURFACED
	NEW ASPHALT PAVEMENT
	EXISTING CONCRETE PAVEMENT
	NEW CONCRETE PAVEMENT
	LIMITS OF PHASE 2 CONSTRUCTION

ITEMS OF WORK:

- CONSTRUCTION SCHEDULE SHALL BE PREPARED BY CONTRACTOR IN WRITING AND SHALL BE APPROVED BY OWNER PRIOR TO ANY CONSTRUCTION ACTIVITY.
- MAINTAIN CLOSE COORDINATION WITH OWNER DURING ALL PHASES OF CONSTRUCTION. RYDER CLIENT SERVICES SHALL BE MAINTAINED DURING CONSTRUCTION.
- CHANGES TO CONSTRUCTION SCHEDULE SHALL BE APPROVED BY OWNER PRIOR TO IMPLEMENTATION.

PHASE 2

1. CONSTRUCT NEW TRUCK FUEL FACILITY KEEPING EXISTING FUEL STATION IN OPERATION.

NOTES:

1. MAINTAIN TRUCK ACCESS TO EXISTING FUEL STATION DURING CONSTRUCTION OF NEW FUEL STATION.

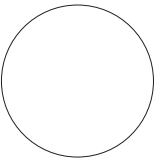
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WHEN SHEET IS PRINTED CORRECTLY, THE ABOVE SCALE IS IN 1" INCREMENTS

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SHEET TITLE:	PHASE 2 - PROPOSED SITE PLAN		
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Ryder

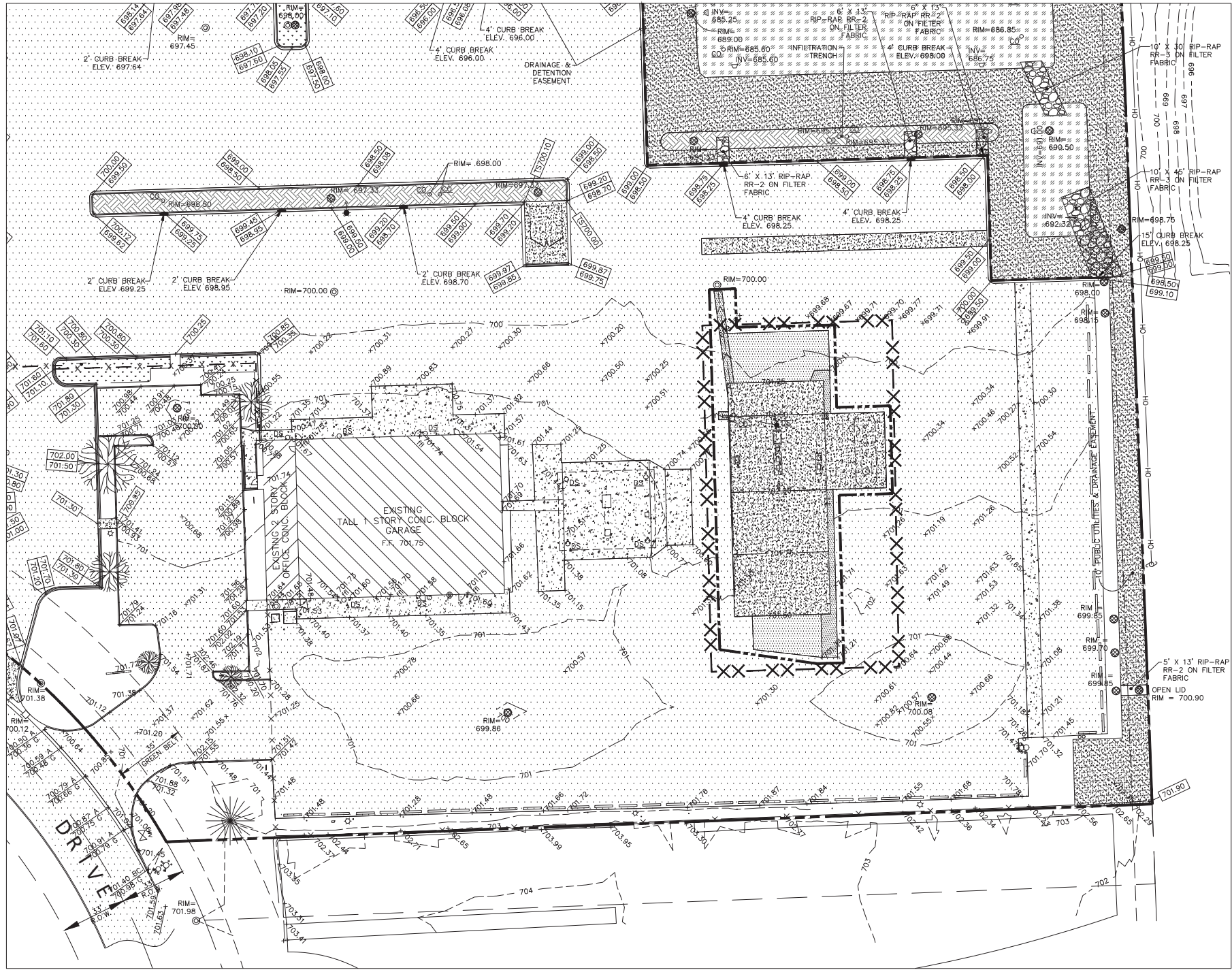
NEW FACILITY
1290 ENTERPRISE DR., ROMEVILLE, IL

PROJECT NO: 15.120
SHEET NO:

DESCRIPTION: VILLAGE REVIEW
DATE: 05-10-19

VILLAGE REVIEW
07-03-19

C-21



PHASE 2 - SOIL EROSION CONTROL PLAN
~SCALE: 1" = 30'~

- PHASE 2 – SEQUENCE OF ACTIVITIES:
1. INSTALLATION OF SOIL EROSION AND SEDIMENT CONTROL SE/SC MEASURES
 - A. SILT FENCE INSTALLATION
 - B. INSTALL NEW CONSTRUCTION FENCE WHERE REQUIRED TO ISOLATE PHASE 2 AREA FROM REMAINDER OF SITE.
 2. REMOVE EXCESS CUT FROM, SITE TEMPORARILY STABILIZE TOPSOIL STOCKPILES (SEED AND SILT FENCE AROUND TOE OF SLOPE).
 3. INSTALL NEW STORM SEWER
 4. INSTALL FUEL ISLAND.
 5. REMOVE ALL TEMPORARY SE/SC MEASURES AFTER PHASE 2 IS STABILIZED.
 6. SE/SC MAINTENANCE MUST OCCUR EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN .25 INCHES OR FAIR PER 24 HOUR PERIOD.

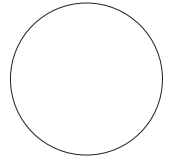
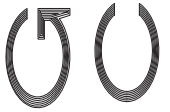
- NOTES:
1. FOR ROMEOVILLE SOIL EROSION NOTES SEE PROPOSED SITE SOIL EROSION CONTROL PLAN SHEET C-5A.
 2. FOR EROSION CONTROL NOTES SEE PROPOSED SITE SOIL EROSION CONTROL PLAN SHEET C-5A.
 3. FOR SOIL EROSION CONTROL DETAILS SEE SHEET C-5B

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.

FRANK D. CHILDERS
ILLINOIS PROFESSIONAL ENGINEER NO. 0062-024465
MY LICENSE EXPIRES NOVEMBER 30, 2017

	PHASE 1	PHASE 2
	QTY.	QTY.
LIMITS OF PHASES		
SILT FENCE ON CONSTRUCTION FENCE.....	1014 LF	536 LF
SILT FENCE ON FENCE.....	1395 LF	0 LF
FILTER BASKET.....	18 EA	2 EA
ASPHALT PAVEMENT FULL DEPTH.....	31120 SF	660 SF
ASPHALT PAVEMENT MILLED.....	38368 SF	1850 SF
CONCRETE PAVEMENT.....	2408 SF	6754 SF
SEEDED EROSION CONTROL BLANKET.....	34481 SF	0 SF
STONE POND BOTTOM.....	11132 SF	0 SF
INFILTRATION TRENCH.....	3807 SF	0 SF
GRASS/GROUND COVER.....	3879 SF	0 SF
RIP-RAP ON FILTER FABRIC.....	145 SF	0 SF
4' LONG EROSION LOG (AT CURB BREAKS).	0 EA	5 EA

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Ryder
NEW FACILITY
1290 ENTERPRISE DR., ROMEOVILLE, IL

DESCRIPTION:	VILLAGE REVIEW	VILLAGE REVIEW
DATE:	05-10-19	07-03-19

PROJECT NO: 15.120
SHEET NO:

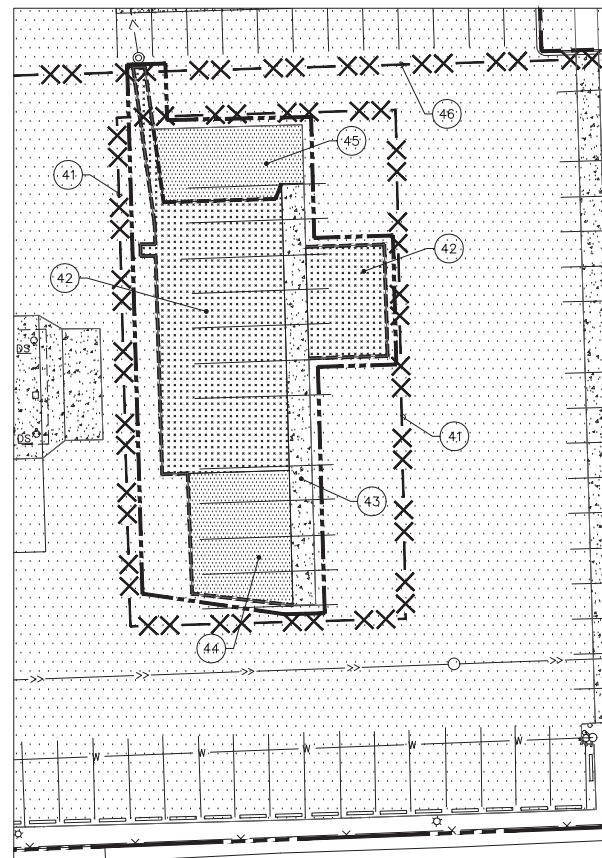
G&C #19-005

SHEET TITLE:	PHASE 2 – SOIL EROSION CONTROL PLAN		
DRAWN BY:	DMC	CHECKED BY:	FDC

C-22

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PHASE 2 - DEMOLITION PLAN


~SCALE: 1" = 30'~

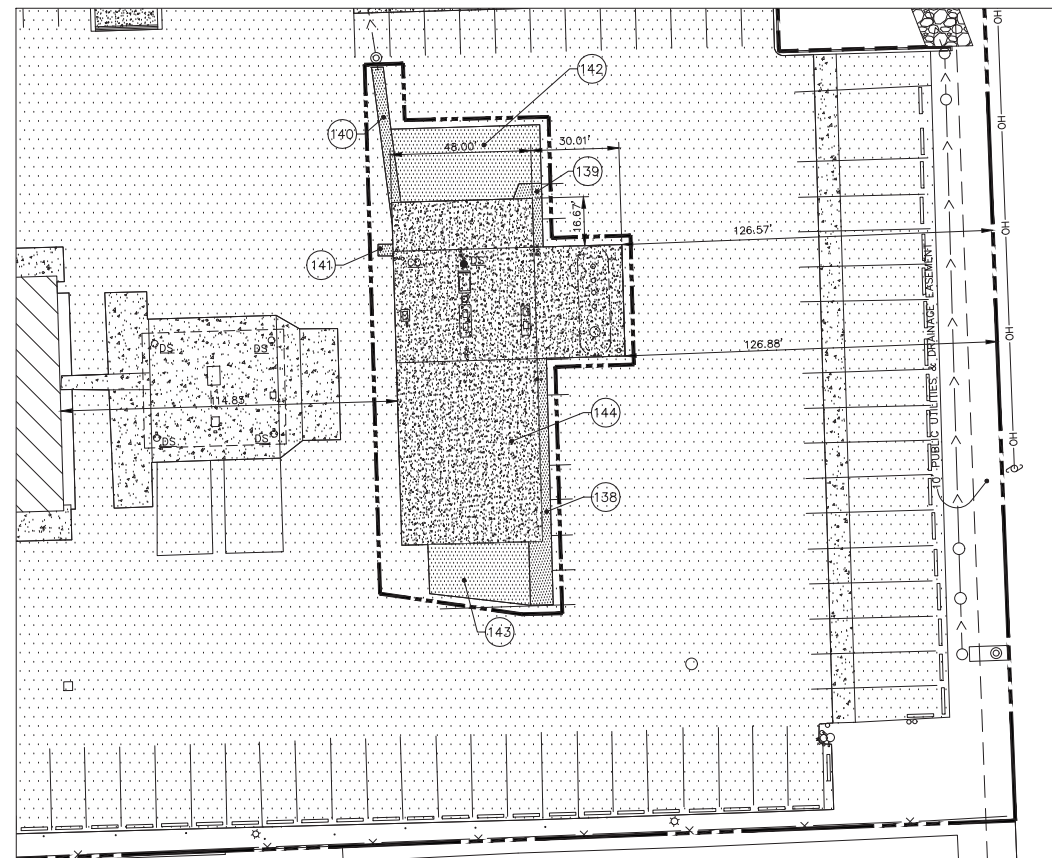


PHASE 2 – DEMOLITION PROJECT NOTES:

41. 537 LF PROPOSED 6' HIGH CONSTRUCTION CHAIN LINK FENCE WITH SILT FENCE IN FRONT OF IT
42. SAW-CUT AND REMOVE 5263 SF (TOTAL) EXISTING ASPHALT PAVEMENT (FULL DEPTH)
43. REMOVE 1107 SF EXISTING CONCRETE PAVEMENT
44. 1497 SF EXIST. ASPHALT PAVEMENT TO BE MILLED 2"
45. 1190 SF EXIST. ASPHALT PAVEMENT TO BE MILLED 2"
46. 964 LF PROPOSED 6' HIGH CONSTRUCTION CHAIN LINK FENCE #9 TO BE REMOVED

DEMOLITION KEY

- SAW-CUT LINE
 CONSTRUCTION FENCE WITH SILT FENCE



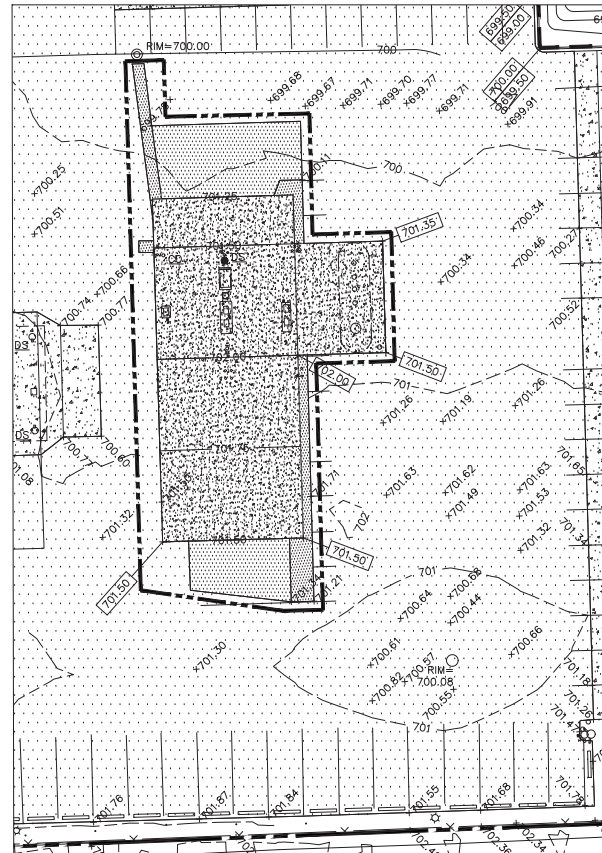
PHASE 2 - GEOMETRIC PLAN

~SCALE: 1" = 30'~



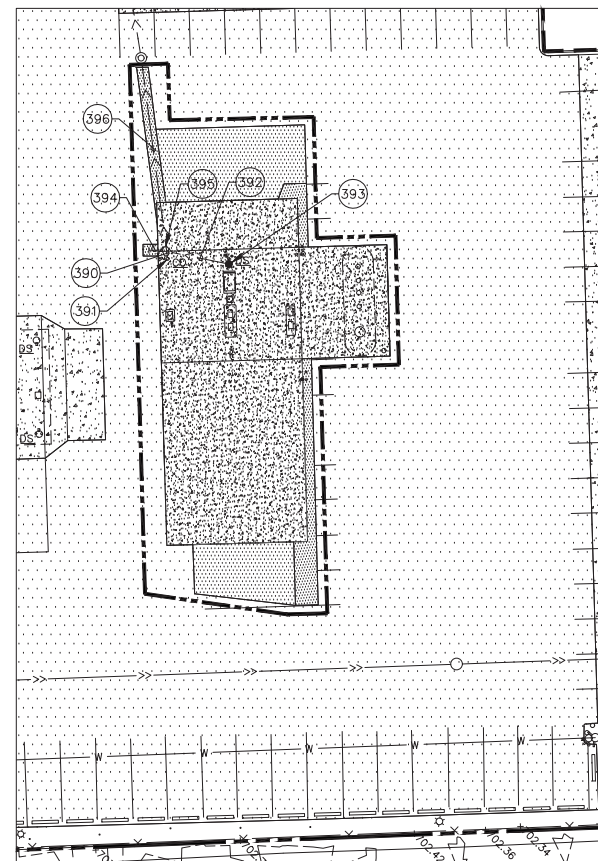
PHASE 2 – PROJECT
GEOMETRIC NOTES:

138. 361 SF PROP. ASPHALT PAVEMENT (FULL DEPTH)
139. 98 SF PROP. ASPHALT PAVEMENT (FULL DEPTH)
140. 186 SF PROP. ASPHALT PAVEMENT (FULL DEPTH)
141. 20 SF PROP. ASPHALT PAVEMENT (FULL DEPTH)
142. 1190 SF PROP. ASPHALT SURFACE
143. 659 SF PROP. ASPHALT SURFACE
144. 6754 SF PROP. CONCRETE PAVEMENT



PHASE 2 - GRADING PLAN

~SCALE: 1" = 30'~



PHASE 2 - UTILITY PLAN

~SCALE: 1" = 30'~








PHASE 2 – UTILITY PROJECT NOTES:

- ```

390. 5 LF PROP. 8" DIP @ 2.00%
391. PROP. CLEAN-OUT
 RIM = 701.55
 INV (8" E) = 697.69
392. 23 LF PROP. 8" DIP @ 1.00%
393. PROP. DOWNSPOUT, CONNECT TO
 PROP. PIPE #392
 INV (8" SW) = 697.82
394. 6 LF PROP. 8" DIP @ 1.00%
 CAPED STUB DURING PHASE 2 FOR
 FUTURE EXTENSION IN PHASE 3
395. PROP. INVERTS
 INV (8" NW) = 697.59
 INV (8" S) = 697.59
 INV (8" E) = 697.59
 INV (8" W) = 697.59
396. 60 LF PROP. 8" DIP @ 0.00%

```

### PAVEMENT KEY

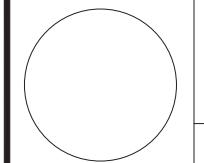
- |                                                                                       |                                                     |
|---------------------------------------------------------------------------------------|-----------------------------------------------------|
|  | EXISTING ASPHALT PAVEMENT<br>TO REMAIN              |
|  | EXISTING MILLED PAVEMENT                            |
|  | PROPOSED ASPHALT PAVEMENT<br>WITHOUT SURFACE COURSE |
|  | EXISTING CONCRETE PAVEMENT<br>TO REMAIN             |
|  | PROPOSED CONCRETE PAVEMENT                          |

G&C #19-005

|              |                                                            |
|--------------|------------------------------------------------------------|
| SHEET TITLE: | PHASE 2 – DEMOLITION, GEOMETRIC, GRADING and UTILITY PLANS |
|--------------|------------------------------------------------------------|

|           |     |             |     |
|-----------|-----|-------------|-----|
| DRAWN BY: | DMC | CHECKED BY: | FDC |
|-----------|-----|-------------|-----|

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| PROFESSIONAL ENGINEERING CORP.            | 60010  |
| 184-000805                                |        |
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| LAKE BARRINGTON, IL                       |        |
| TEL. (847) 827-9430                       |        |
| gandcengs@sbcbglobal.net                  |        |



**NEW FACILITY**  
**1290 ENTERPRISE DR., ROMEVILLE, IL**

|              |                |                |
|--------------|----------------|----------------|
| DESCRIPTION: | VILLAGE REVIEW | VILLAGE REVIEW |
| DATE:        | 05-10-19       | 07-03-19       |

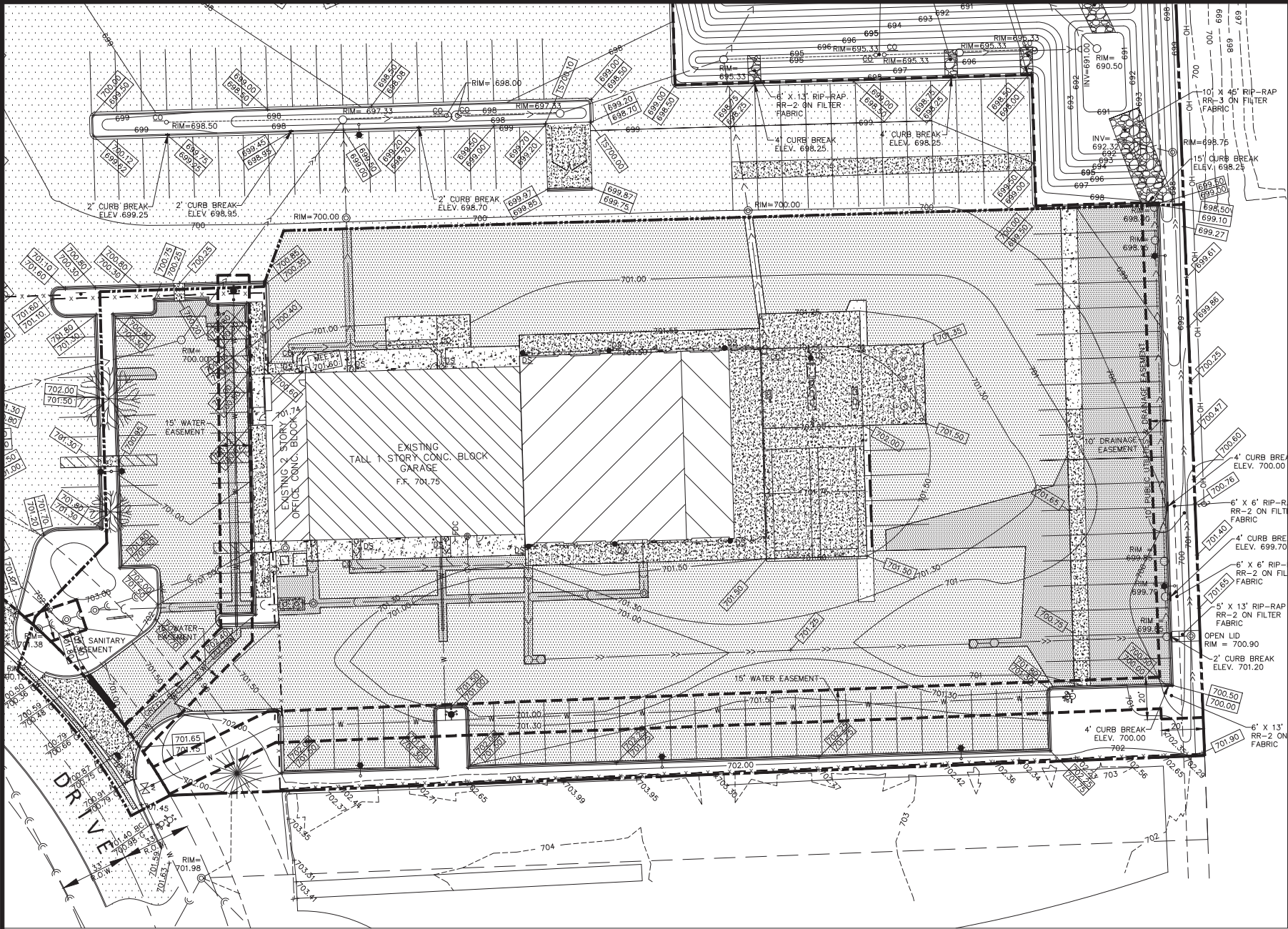
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| PROJECT NO: | 15.120 |
|-------------|--------|

SHEET NO:

C-23



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PHASE 3 - PROPOSED SITE PLAN

~SCALE: 1" = 30'~



ITEMS OF WORK:

CONSTRUCTION SCHEDULE SHALL BE PREPARED BY CONTRACTOR IN WRITING AND SHALL BE APPROVED BY OWNER PRIOR TO ANY CONSTRUCTION ACTIVITY.

MAINTAIN CLOSE COORDINATION WITH OWNER DURING ALL PHASES OF CONSTRUCTION. RYDER CLIENT SERVICES SHALL BE MAINTAINED DURING CONSTRUCTION.

CHANGES TO CONSTRUCTION SCHEDULE SHALL BE APPROVED BY OWNER PRIOR TO IMPLEMENTATION.

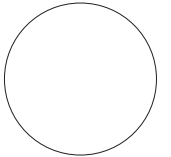
PHASE 3

1. REMOVE EXISTING SURFACE OF TRUCK FUELING FACILITY. SEPARATE OWNER CONTRACTOR SHALL REMOVE EXISTING UNDERGROUND FUEL TANK.
2. INSTALL NEW SANITARY SEWER.
3. CONSTRUCT PROPOSED BUILDING ADDITION.
4. CONSTRUCT REVISED EMPLOYEE PARKING AREA.
5. SAW-CUT EXISTING ASPHALT TO INSTALL STORM SEWER SYSTEMS. INSTALL NEW WATERMAIN AND FIRE HYDRANTS.
6. SAW-CUT EXISTING ASPHALT PAVEMENT TO INSTALL NEW CONCRETE CURBS.
7. CONSTRUCT NEW PAVEMENT, MILL EXISTING PAVEMENT, AND PROVIDE TEMPORARY STRIPING.
8. CONSTRUCT NEW SURFACE OVERLAY OVER ENTIRE SITE AFTER MAJOR ELEMENTS OF CONSTRUCTION HAS BEEN COMPLETED. PROVIDE NEW PAVEMENT STRIPING.
9. PROVIDE NEW FENCE AND GATES.



NEW FACILITY  
1290 ENTERPRISE DR., ROMEVILLE, IL

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UNIT 4  
60010



PROJECT NO: 15.120  
SHEET NO:

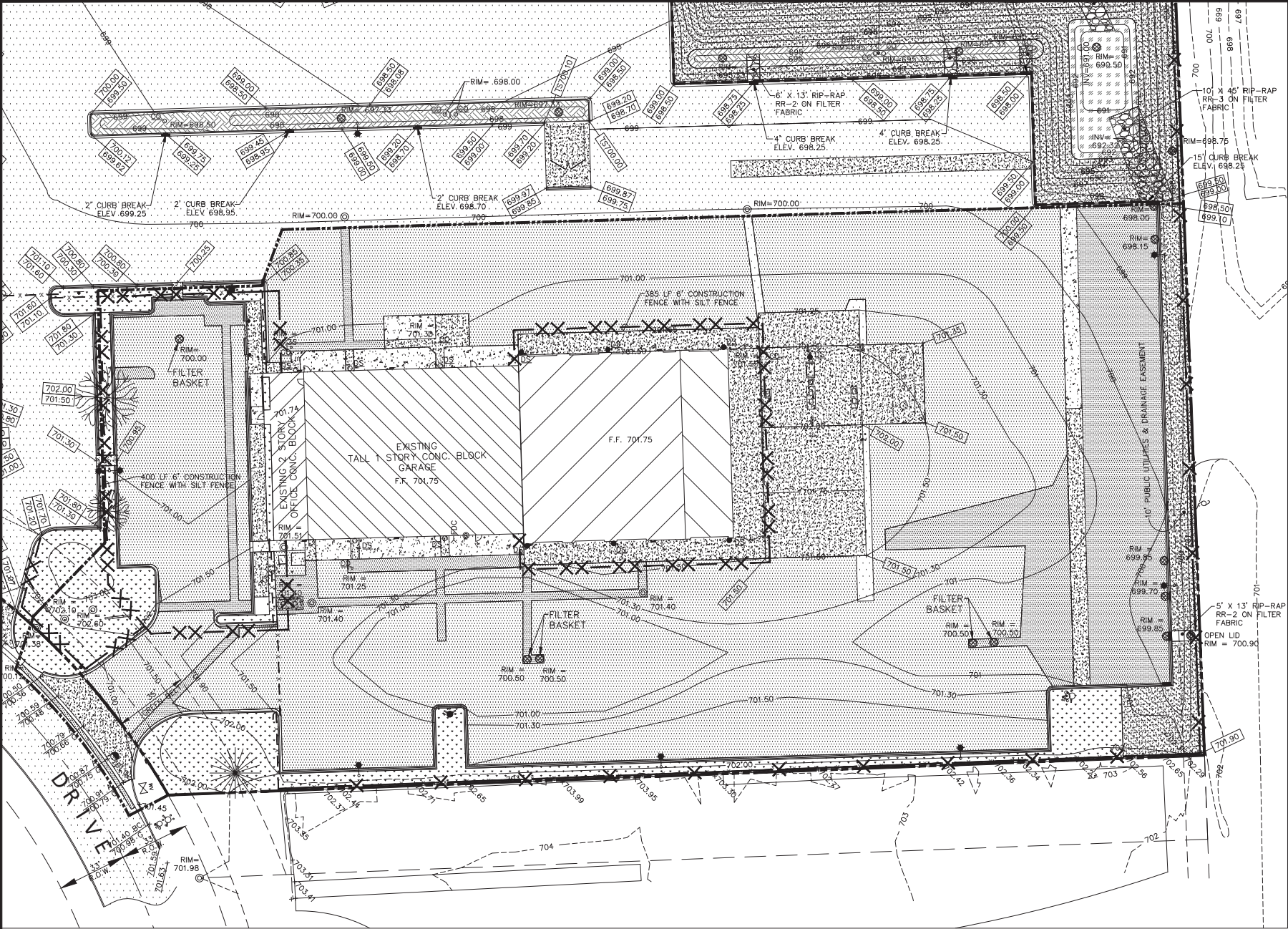
C-24

SHEET TITLE: PHASE 3 - PROPOSED SITE PLAN  
DRAWN BY: DMC  
CHECKED BY: FDC

G&C #19-005

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PHASE 3 - SOIL EROSION CONTROL PLAN

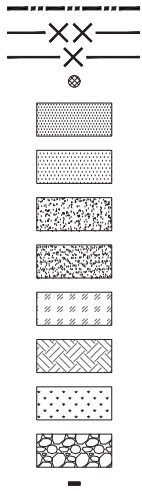
~SCALE: 1" = 30'~



PHASE 3 – SEQUENCE OF ACTIVITIES:

1. INSTALLATION OF SOIL EROSION AND SEDIMENT CONTROL SE/SC MEASURES
  - A. VEGETATION REMOVAL FOR SILT FENCE INSTALLATION ALONG EXISTING AND NEW FENCE USED AS PHASE 3 CONSTRUCTION FENCE.
  - B. SILT FENCE INSTALLATION
  - C. INSTALL NEW CONSTRUCTION FENCE WHERE REQUIRED TO ISOLATE PHASE 3 AREA FROM REMAINDER OF SITE.
2. TREE REMOVAL WHERE NECESSARY (CLEAR AND GRUB)
3. REMOVE EXCESS CUT FROM SITE, TEMPORARILY STABILIZE TOPSOIL STOCKPILES (SEED AND SILT FENCE AROUND TOE OF SLOPE).
4. INSTALL NEW SANITARY AND STORM SEWER
5. CONSTRUCT NEW BUILDING ADDITION.
6. INSTALL REVISED FRONT PARKING LOT.
7. REMOVE ALL TEMPORARY SE/SC MEASURES AFTER PHASE 1 AND PHASE 2 IS STABILIZED.
8. MILL EXISTING ASPHALT AND PROVIDE FINAL PAVEMENT AND STRIPING FOR ALL PHASES.
9. SE/SC MAINTENANCE MUST OCCUR EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN .25 INCHES OF RAIN PER 24 HOUR PERIOD.

LEGEND



LIMITS OF PHASES

- SILT FENCE ON CONSTRUCTION FENCE.....
- SILT FENCE ON FENCE.....
- FILTER BASKET.....
- ASPHALT PAVEMENT FULL DEPTH.....
- ASPHALT PAVEMENT MILLED.....
- CONCRETE PAVEMENT.....
- SEEDED EROSION CONTROL BLANKET.....
- STONE POND BOTTOM.....
- INFILTRATION TRENCH.....
- GRASS/GROUND COVER.....
- RIP-RAP ON FILTER FABRIC.....
- 4' LONG EROSION LOG (AT CURB BREAKS).....

| PHASE 1<br>QTY. | PHASE 2<br>QTY. | PHASE 3<br>QTY. |
|-----------------|-----------------|-----------------|
| 1014 LF         | 536 LF          | 896 SF          |
| 1395 LF         | 0 LF            | 0 SF            |
| 18 EA           | 2 EA            | 2 EA            |
| 31120 SF        | 660 SF          | 9066 SF         |
| 38368 SF        | 1850 SF         | 76144 SF        |
| 2408 SF         | 6754 SF         | 5986 SF         |
| 34481 SF        | 0 SF            | 0 SF            |
| 11132 SF        | 0 SF            | 0 SF            |
| 3807 SF         | 0 SF            | 0 SF            |
| 3879 SF         | 0 SF            | 10777 SF        |
| 145 SF          | 0 SF            | 67 SF           |
| 0 EA            | 5 EA            | 2 EA            |

NOTES:

1. FOR ROMEVILLE SOIL EROSION NOTES SEE PROPOSED SITE SOIL EROSION CONTROL PLAN SHEET C-5A.
2. FOR EROSION CONTROL NOTES SEE PROPOSED SITE SOIL EROSION CONTROL PLAN SHEET C-5A.

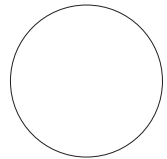
THIS EROSION CONTROL PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND COMPLIES WITH THE URBAN SOIL EROSION CONTROL AND STANDARDS IN ILLINOIS MANUAL (LATEST EDITION) AND THE GENERALLY RECOGNIZED METHODS IN USE IN THE AREA.

FRANK D. CHILDERS  
ILLINOIS PROFESSIONAL ENGINEER NO. 0062-024465  
MY LICENSE EXPIRES NOVEMBER 30, 2017

G&C #19-005

|              |                                     |
|--------------|-------------------------------------|
| SHEET TITLE: | PHASE 3 – SOIL EROSION CONTROL PLAN |
| DRAWN BY:    | DMC                                 |
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NEW FACILITY  
1290 ENTERPRISE DR., ROMEVILLE, IL

DESCRIPTION: VILLAGE REVIEW 05-10-19

DATE: 07-03-19

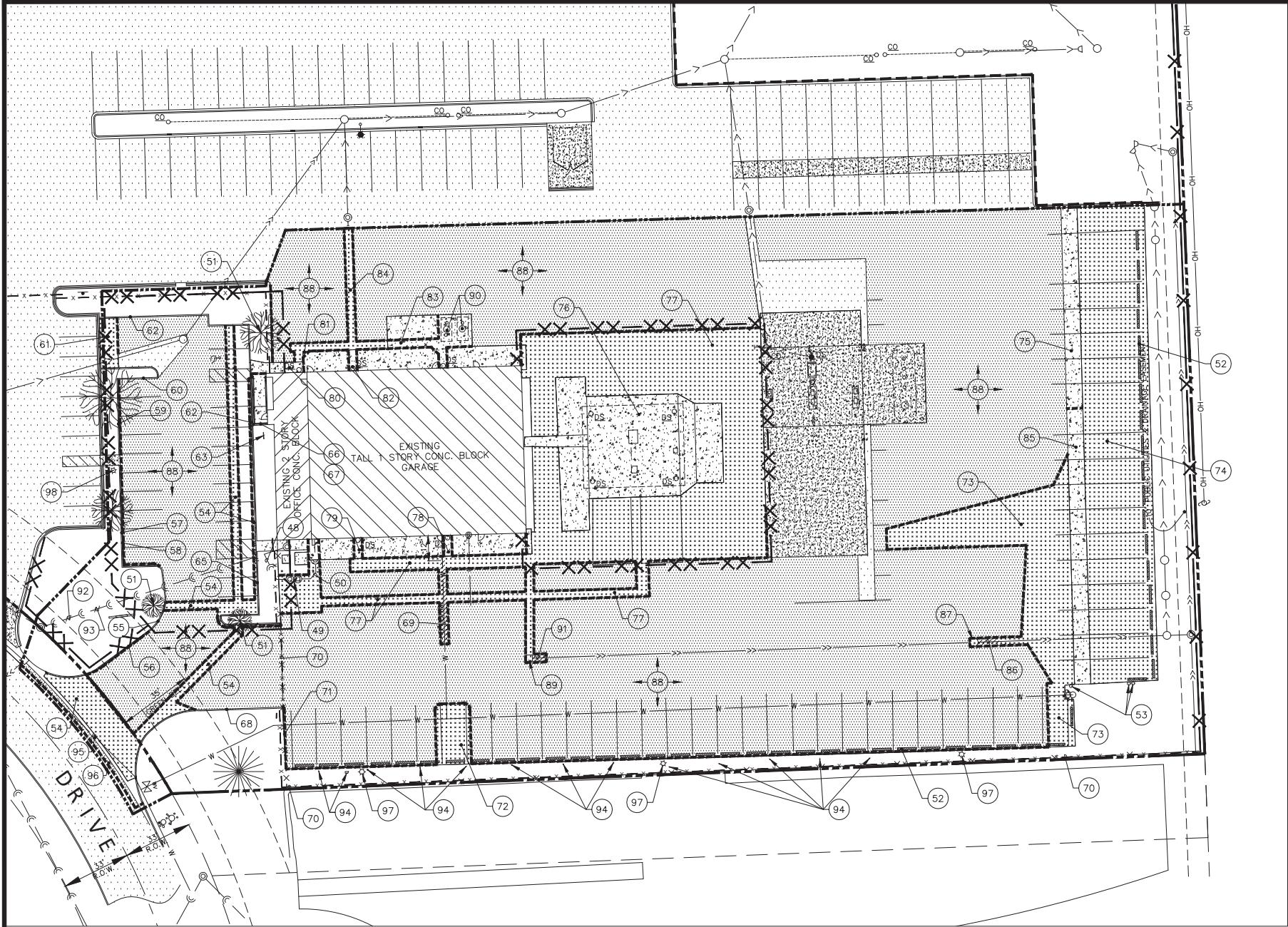
PROJECT NO: 15.120

SHEET NO:

C-25



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### PHASE 3 - DEMOLITION PLAN

~SCALE: 1" = 30'~



#### PHASE 3 DEMOLITION PROJECT NOTES:

48. REMOVE 20 LF EXIST. SANITARY SEWER
49. REMOVE EXIST. 1000 GAL. OIL/WATER SEPARATOR #483 AND 1000 GAL. GRIT TANK #482
50. REMOVE 26 LF EXIST. SANITARY SEWER
51. REMOVE EXIST. TREE (TYP. 3)
52. REMOVE EXIST. WHEEL STOP (TYP. 51)
53. REMOVE EXIST. BOLLARDS (TYP. 3)
54. SAW-CUT AND REMOVE 199 SF EXIST. ASPHALT PAVEMENT
55. SAW-CUT AND REMOVE 67 LF EXIST. CURB
56. SAW-CUT AND REMOVE 6 SF. ASPHALT PAVEMENT
57. SAW-CUT AND REMOVE 84 LF EXIST. CURB
58. SAW-CUT AND REMOVE 38 SF EXIST. ASPHALT PAVEMENT
59. SAW-CUT AND REMOVE 16 SF EXIST. ASPHALT PAVEMENT
60. SAW-CUT AND REMOVE 86 LF EXIST. CURB
61. SAW-CUT AND REMOVE 202 SF EXIST. ASPHALT PAVEMENT
62. SAW-CUT AND REMOVE 744 LF EXIST. CURB
63. REMOVE EXISTING SIGN
65. REMOVE 79 SF EXIST. CURB
66. REMOVE 6 LF EXIST. RAILING
67. SAW-CUT AND REMOVE 3 SF EXIST. CONCRETE
68. SAW-CUT AND REMOVE 90 LF EXIST. CURB
69. CUT AND REMOVE 40 LF EXIST. WATER SERVICE
70. REMOVE 555 LF TOTAL EXIST. FENCE AND GATE
71. SAW-CUT AND REMOVE 13 SF EXIST. ASPHALT PAVEMENT
72. SAW-CUT AND REMOVE 559 SF EXIST. ASPHALT PAVEMENT
73. SAW-CUT AND REMOVE 3668 SF EXIST. ASPHALT PAVEMENT
74. 7319 SF EXIST. ASPHALT PAVEMENT TO BE REMOVED
75. REMAINING \_\_\_ SF EXIST. CONCRETE DOLLY PAD
76. EXISTING FUELING STATION TO BE REMOVED COMPLETELY
77. SAW-CUT AND REMOVE 10189 SF EXIST. ASPHALT PAVEMENT
78. SAW-CUT AND REMOVE 40 SF EXIST. CONCRETE PAVEMENT
79. SAW-CUT AND REMOVE 40 SF EXIST. CONCRETE PAVEMENT
80. SAW-CUT AND REMOVE 132 SF EXIST. CONCRETE SIDEWALK
81. SAW-CUT AND REMOVE 5 SF EXIST. CONCRETE PAVEMENT
82. SAW-CUT AND REMOVE 40 SF EXIST. CONCRETE PAVEMENT
83. SAW-CUT AND REMOVE 150 SF EXIST. CONCRETE PAVEMENT
84. SAW-CUT AND REMOVE 422 SF EXIST. ASPHALT PAVEMENT
85. SAW-CUT AND REMOVE \_\_\_ SF EXIST. CONCRETE DOLLY PAD
86. CUT AND REMOVE 12 LF EXIST. STORM SEWER #253
87. EXIST. CATCH BASIN #252 TO BE MODIFIED (SEE PHASE 3 UTILITY PLAN SHEET C-29, #444 FOR MODIFICATIONS)
88. \_\_\_ SF EXIST. ASPHALT PAVEMENT TO BE MILLED 2"
89. EXISTING INLET TO BE REMOVED
90. REMOVE EXIST. TANKS #484 & #485
91. CUT AND REMOVE 8 LF EXIST. STORM SEWER #251
92. CUT AND REMOVE 5 LF EXIST. SANITARY SEWER #478 FOR INSTALLATION OF PROP. 60" SANITARY INSPECTION MANHOLE #501 (SEE PHASE 3 - UTILITY PLAN, SHEET C-29)
93. CUT AND REMOVE 4 LF EXIST. SANITARY SEWER #478 FOR INSTALLATION OF PROP. 48" SANITARY MANHOLE #503 (SEE PHASE 3 - UTILITY PLAN, SHEET C-29)
94. REMOVE EXIST. ELECTRICAL BOXES (TYP. 13) (SEE ELECTRICAL PLANS)
95. SAW-CUT AND REMOVE 59 LF EXIST. DEPRESSED CURB
96. SAW-CUT AND REMOVE 176 SF EXIST. ASPHALT PAVEMENT
97. REMOVE EXIST. LIGHT POLE (TYP. 3)
98. EXIST. LIGHT POLE TO BE MODIFIED (SEE PHASE 3 UTILITY PLAN, SHEET C-29, #625 AND ELECTRICAL PLANS FOR MODIFICATIONS)

#### DEMOLITION KEY

- SAW-CUT LINE
- X--- FENCE WITH SILT FENCE
- XX--- CONSTRUCTION FENCE
- UTILITY PIPE TO BE REMOVED



NEW FACILITY  
1290 ENTERPRISE DR., ROMEVILLE, IL

DESCRIPTION: VILLAGE REVIEW 05-10-19 07-03-19

DATE: 05-10-19 07-03-19

PROJECT NO: 15,120

SHEET NO:

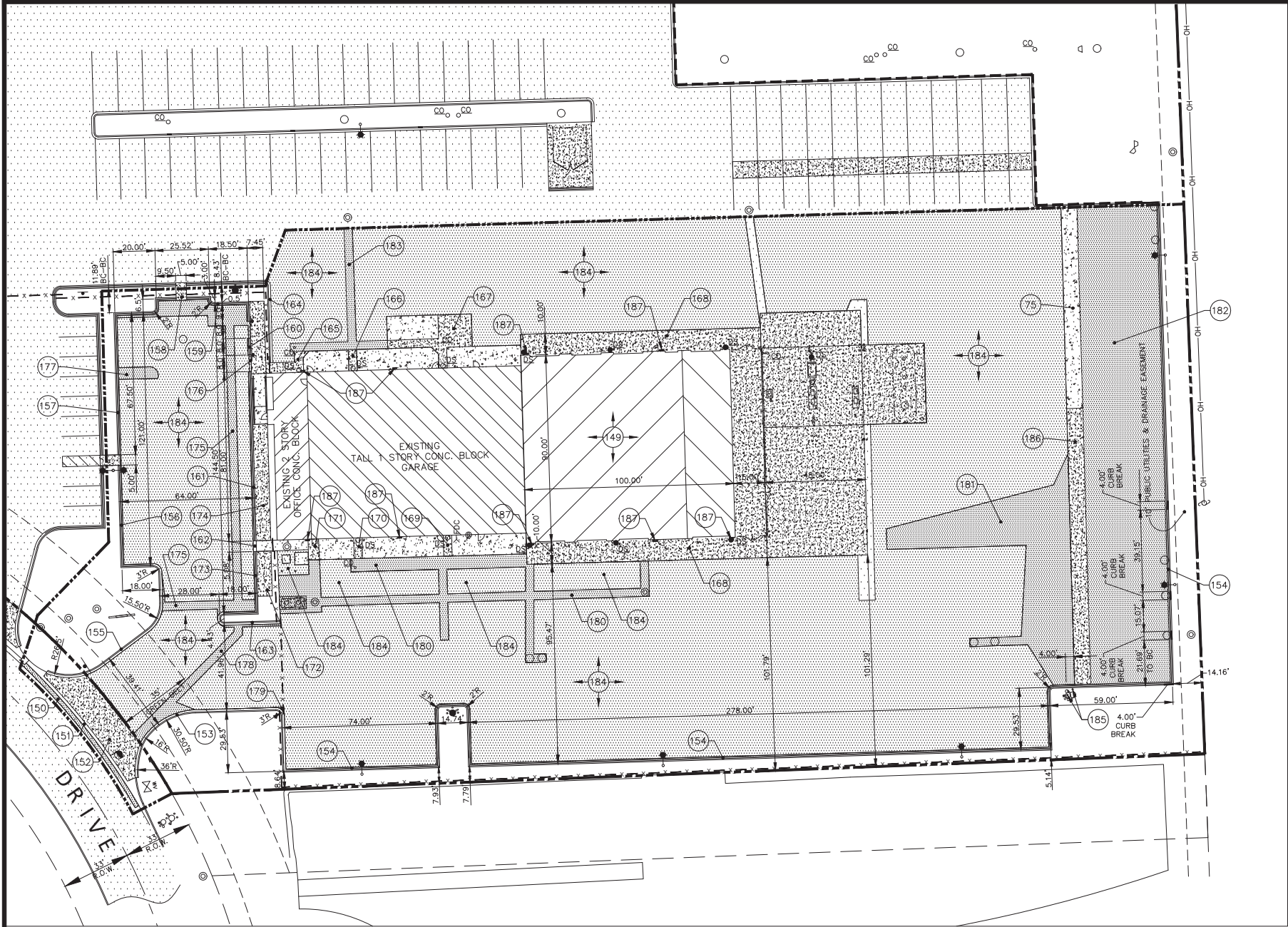
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SHEET TITLE: PHASE 3 - DEMOLITION PLAN

DRAWN BY: DMC CHECKED BY: FDC

C-26

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### PHASE 3 - GEOMETRIC PLAN

~SCALE: 1" = 30'~



### PHASE 1 — GEOMETRIC PROJECT NOTES

75. REMAINING \_\_\_ SF EXIST. CONCRETE DOLLY PAD
149. PROP. BUILDING
150. 174 SF PROP. ASPHALT PAVEMENT
151. 87 LF PROP. DEPRESSED CURB
152. 798 SF PROP. CONCRETE APRON
153. 117 LF PROP. B6.12 CURB AND GUTTER
154. 737 LF PROP. B6.12 REVERSED PITCH CURB AND GUTTER
155. 89 LF PROP. B6.12 CURB AND GUTTER
156. 64 LF PROP. B6.12 REVERSED PITCH CURB AND GUTTER
157. 103 LF PROP. B6.12 REVERSED PITCH CURB AND GUTTER
158. 42 SF PROP. CONCRETE SIDEWALK
159. 122 LF PROP. B6.12 REVERSED PITCH CURB AND GUTTER
160. 8 LF PROP. B6.12 REVERSED PITCH CURB AND GUTTER
161. 81 LF PROP. B6.12 REVERSED PITCH CURB AND GUTTER
162. 5 LF DEPRESSED CURB
163. 34 LF PROP. B6.12 CURB AND GUTTER
164. 39 LF PROP. B6.12 CURB AND GUTTER
165. 355 SF PROP. CONCRETE SIDEWALK
166. 40 SF PROP. CONCRETE SIDEWALK
167. 391 SF PROP. CONCRETE SIDEWALK
168. 3617 SF PROP. CONCRETE SIDEWALK
169. 40 SF PROP. CONCRETE SIDEWALK
170. 40 SF PROP. CONCRETE SIDEWALK
171. 52 SF PROP. CONCRETE SIDEWALK
172. 208 SF PROP. CONCRETE SIDEWALK
173. 46 LF PROP. B6.12 REVERSED PITCH CURB AND GUTTER
174. 387 SF PROP. CONCRETE SIDEWALK
175. 1138 SF ASPHALT PAVEMENT
176. 4 SF PROP. ASPHALT PAVEMENT
177. 103 SF PROP. ASPHALT PAVEMENT
178. 372 SF PROP. ASPHALT PAVEMENT
179. 5 SF PROP. ASPHALT PAVEMENT
180. 1920 SF PROP. ASPHALT PAVEMENT
181. \_\_\_ SF PROP. ASPHALT PAVEMENT
182. \_\_\_ SF PROP. ASPHALT PAVEMENT
183. 401 SF PROP. ASPHALT PAVEMENT
184. 76145 SF PROP. EXIST. ASPHALT PAVEMENT MILLED 2"
185. PROP. BOLLARD (TYP. 2)
186. \_\_\_ SF PROP. CONCRETE DOLLY PAD
187. PROP. "NO PARKING FIRE LANE" SIGN (TYP. 7)

### NOTES:

1. ALL DIMENSIONS ARE TO FACE—OF—CURB UNLESS OTHERWISE STATED.
2. MAINTAIN CONSTRUCTION FENCE DURING PHASE 1 CONSTRUCTION. NEW FENCE AND GATES TO BE INSTALLED AT THE END OF PHASE 1.
3. PROVIDE TEMPORARY STRIPING, SEE SHEET C-14
4. FOR ASPHALT PAVEMENT DETAIL SEE SHEET C-30
5. FOR CURB DETAIL SEE SHEET C-30
6. FOR PERIMETER CURB DETAIL SEE SHEET C-30
7. FOR UTILITY TRENCH SEE SHEET C-30
8. NEW 2" SURFACE TO BE INSTALLED IN PHASE 3
9. 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. A MINIMUM OF 3' FULL-DEPTH REMOVAL OF PAVEMENT WILL BE REQUIRED ALONG THE FACE OF ANY NEW CURB TO ENSURE PROPER COMPACTION.

WHEN SHEET IS PRINTED CORRECTLY, THE ABOVE SCALE IS IN 1" INCREMENTS

G&C #19-005

SHEET TITLE: PHASE 3 — GEOMETRIC PLAN  
DRAWN BY: DMC  
CHECKED BY: FDC

PROJECT NO: 15.120  
SHEET NO:

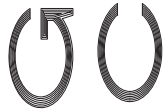
C-27



NEW FACILITY  
1290 ENTERPRISE DR., ROMEVILLE, IL

DESCRIPTION: VILLAGE REVIEW  
DATE: 05-10-19

VILLAGE REVIEW  
DATE: 07-03-19



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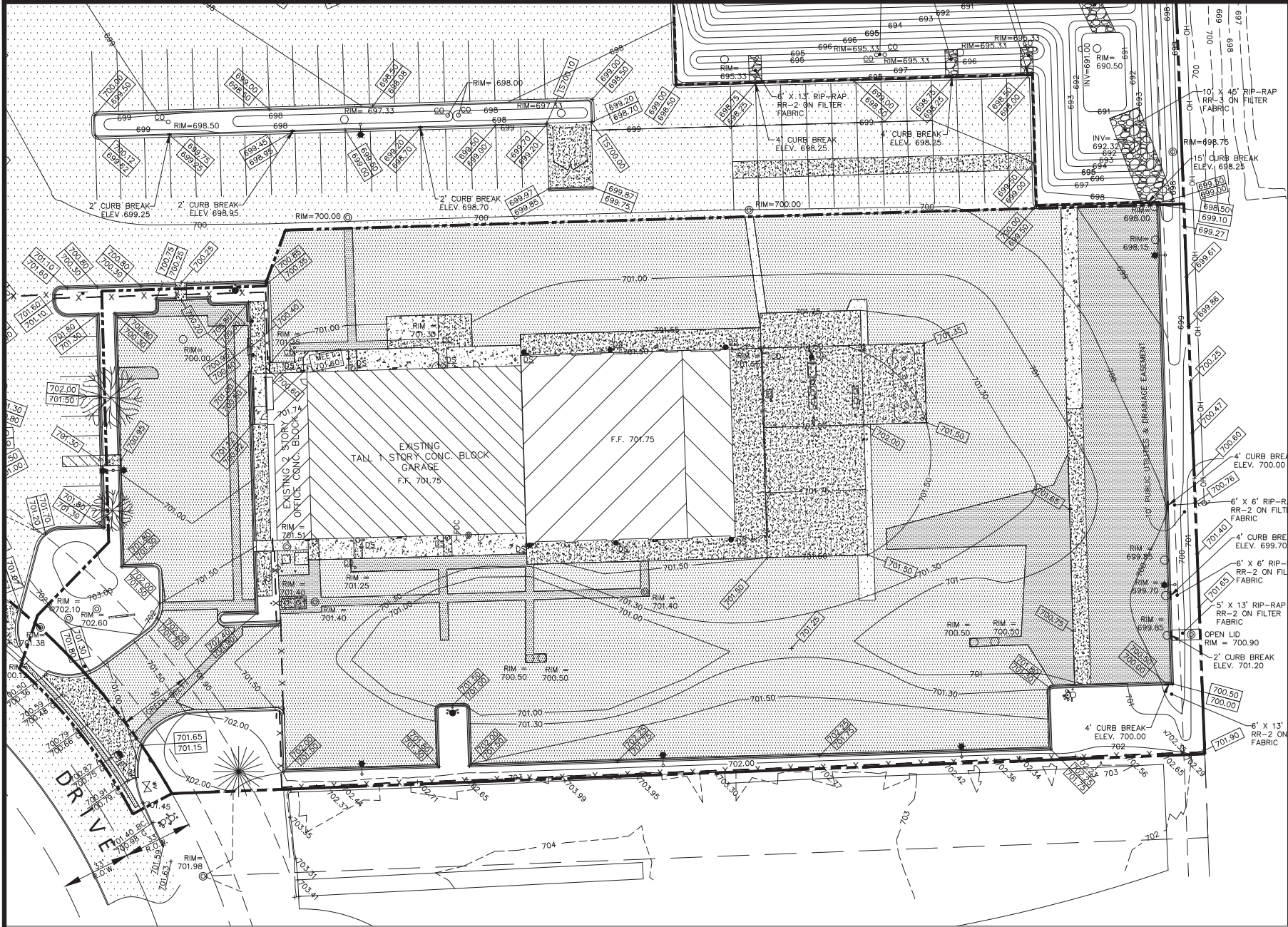
PROFESSIONAL DESIGN FIRM  
PROFESSIONAL ENGINEERING CORP.

184-00805  
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PAVEMENT KEY

- EXISTING ASPHALT PAVEMENT TO REMAIN
- EXISTING MILLED PAVEMENT
- PROPOSED ASPHALT PAVEMENT WITHOUT SURFACE COURSE
- EXISTING CONCRETE PAVEMENT TO REMAIN
- PROPOSED CONCRETE PAVEMENT

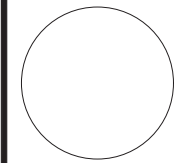
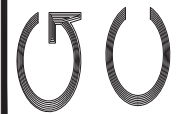
PHASE 3 - GRADING PLAN

~SCALE: 1" = 30'~



WHEN SHEET IS PRINTED CORRECTLY, THE ABOVE SCALE IS IN 1" INCREMENTS

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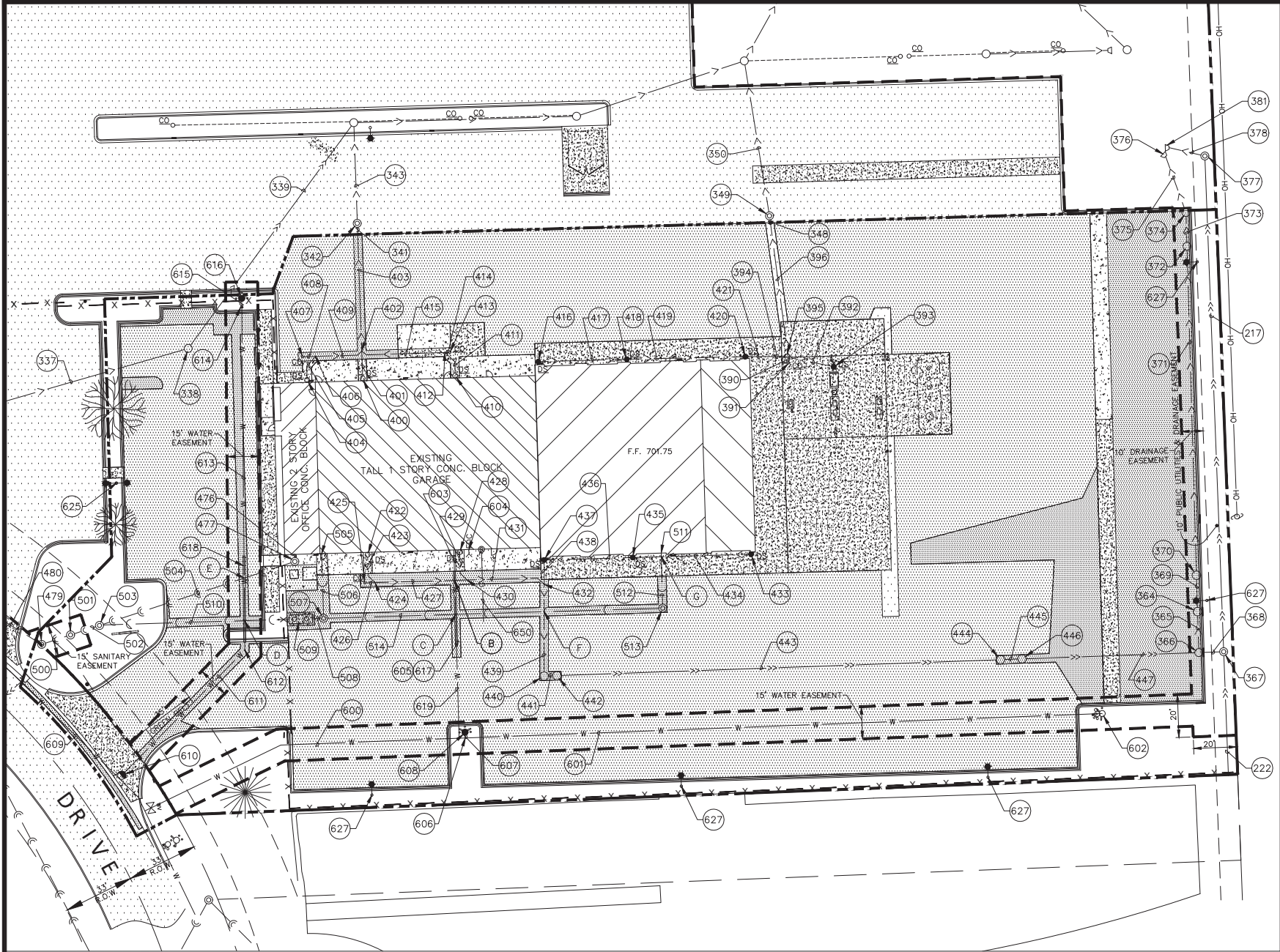
G&C #19-005

SHEET TITLE: PHASE 3 - GRADING PLAN  
 DRAWN BY: DMC  
 CHECKED BY: FDC

C-28



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PHASE 3 - UTILITY PLAN

~SCALE: 1" = 30'~



PIPE CROSSING SCHEDULE

| MARK | PIPE TYPE AND SIZE           | ELEVATION  | DIFFERENCE |
|------|------------------------------|------------|------------|
| B    | 8" DI STORM SEWER (#427)     | B/P 698.29 | 4.20'      |
|      | 6" DI WATER LINE (#605)      | T/P 694.09 |            |
| C    | 6" PVC SANITARY SEWER (#514) | B/P 696.09 | 2.0'       |
|      | 6" DI WATER LINE (#605)      | T/P 694.09 |            |
| D    | 6" PVC SANITARY SEWER (#510) | B/P 694.74 | 1.5'       |
|      | 8" DI WATER LINE (#613)      | T/P 693.19 |            |
| E    | 6" PVC SANITARY SEWER (#504) | B/P 696.13 | 2.94'      |
|      | 8" DI WATER LINE (#613)      | T/P 693.19 |            |
| F    | 12" DI STORM SEWER (#439)    | B/P 697.70 | 0.69'      |
|      | 6" PVC SANITARY SEWER (#514) | T/P 697.01 |            |
| G    | 6" DI STORM SEWER (#434)     | B/P 698.93 | 1.09'      |
|      | 6" PVC SANITARY SEWER (#512) | T/P 697.84 |            |

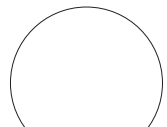
PHASE 3 – UTILITY PROJECT NOTES:

217. 231 LF EXIST. 24" RCP @ 0.53%  
222. EXIST. 24" RCP @ 0.50%  
337. 102 LF PROP. 12" RCP @ 1.00%  
338. MODIFIED EXIST. CATCH BASIN #214  
RIM = 700.00 (EXIST.)  
INV (12" NW) = 695.84 (EXIST.)  
INV (12" SE) = 696.28 (PROP.)  
339. REMAINING 130 LF OF MODIFIED EXIST. 12" RCP #215 @ 2.70%  
341. PHASE 1 – 4 LF PROP. 8" DIP @ 2.00%, CAP TO BE REMOVED  
342. PHASE 1 – PROP. 48" STORM MANHOLE  
RIM = 700.00  
INV (8" E) = 697.02  
INV (8" W) = 697.02  
343. PHASE 1 – 47 LF PROP. 8" DIP @ 3.00%  
348. PHASE 1 – 4 LF PROP. 8" DIP @ 2.00%, CAP TO BE REMOVED  
349. PROP. 48" STORM MANHOLE  
RIM = 700.00  
INV (8" E) = 696.50  
INV (8" W) = 693.00  
350. 73 LF PROP. 8" DIP @ 2.00%  
364. PHASE 1 – PROP. 48" CATCH BASIN  
RIM = 699.70  
INV (18" E) = 693.85  
INV (18" W) = 693.85  
365. PHASE 1 – 19 LF PROP. 18" RCP @ 1.00%  
366. PHASE 1 – PROP. 60" CATCH BASIN  
RIM = 698.85  
INV (18" N) = 695.58  
INV (18" S) = 695.58  
INV (18" W) = 693.95  
368. PHASE 1 – REMAINING 12 LF EXIST. 18" RCP #253 @ 0.54%  
369. PHASE 1 – 17 LF PROP. 18" RCP @ 1.00%  
370. PHASE 1 – PROP. 48" CATCH BASIN  
RIM = 699.85  
INV (18" E) = 693.68  
INV (18" W) = 693.68  
371. 153 LF PROP. 18" RCP @ 0.80%  
372. PROP. 48" CATCH BASIN  
RIM = 698.15  
INV (18" E) = 692.75  
INV (24" W) = 692.50  
373. 16 LF PROP. 24" RCP @ 0.40%  
374. PROP. 60" CATCH BASIN  
RIM = 698.00  
INV (24" E) = 692.44  
INV (24" SW) = 692.44  
375. 28 LF PROP. 24" RCP @ 0.40%  
376. PROP. FLARED END SECTION  
INV (24" NE) = 692.32  
377. PROP. 48" OPEN LID STORM MANHOLE  
RIM = 698.75  
INV (24" SW) = 692.44  
INV (24" E) = 693.84  
378. 20 LF PROP. 24" RCP @ 0.60%  
381. PROP. FLARED END SECTION  
INV (24" NE) = 692.32  
390. PHASE 2 – 5 LF PROP. 8" DIP @ 2.00%  
391. PHASE 2 – PROP. CLEAN-OUT  
RIM = 701.55  
INV (8" E) = 697.69  
392. PHASE 2 – 23 LF PROP. 8" DIP @ 1.00%  
393. PHASE 2 PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #392  
INV (8" SW) = 697.82  
394. PHASE 2 – 6 LF PROP. 8" DIP @ 1.00%  
CAP TO BE REMOVED  
395. PHASE 2 – PROP. INVERTS  
INV (8" NW) = 697.59  
INV (8" S) = 697.59  
INV (8" E) = 697.59  
INV (8" W) = 697.59  
396. PHASE 2 – 60 LF PROP. 8" DIP @ 2.00%  
400. EXIST. DOWNSPOUT, CONNECT TO PROP. PIPE #401  
INV (8" W) = 698.48  
401. 13 LF PROP. 8" DIP @ 2.00%  
402. PROP. INV = 698.22  
403. 56 LF PROP. 8" DIP @ 2.00%  
404. EXIST. DOWNSPOUT, CONNECT TO PROP. PIPE #405  
INV (6" W) = 698.65  
405. 13 LF PROP. 6" DIP @ 1.00%  
406. PROP. INV = 698.62  
407. PROP. CLEAN-OUT  
RIM = 701.35  
INV (6" N) = 698.68  
408. 6 LF PROP. 6" DIP @ 1.00%  
409. 22 LF PROP. 6" DIP @ 1.27%  
410. EXIST. DOWNSPOUT, CONNECT TO PROP. PIPE #411  
INV (6" W) = 698.73  
411. 13 LF PROP. 6" DIP @ 1.00%  
412. PROP. INV (6") = 698.62  
413. PROP. CLEAN-OUT  
RIM = 701.30  
INV (6" S) = 698.63  
414. 2 LF PROP. 6" DIP @ 0.95%  
415. 39 LF PROP. 6" DIP @ 1.00%  
416. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #417  
INV (8" N) = 698.75  
417. 41 LF PROP. 8" DIP @ 1.00%  
418. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #417 AND #419  
INV (#419 8" N) = 698.34  
INV (#418 8" S) = 698.34  
419. 55 LF PROP. 8" DIP @ 1.00%
420. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #419 AND #421  
INV (#421 8" N) = 697.79  
INV (#419 8" S) = 697.79  
421. 14 LF PROP. 8" DIP @ 1.00%  
422. EXIST. DOWNSPOUT, CONNECT TO PROP. PIPE #423  
INV (8" E @ BLDG.) = 698.78  
423. 14 LF PROP. 8" DIP @ 1.00%  
424. PROP. INV. @ PIPE #426 & #427) = 698.64  
425. PROP. CLEAN-OUT  
RIM = 701.25  
INV (8" N) = 698.70  
426. 5 LF PROP. 8" DIP @ 1.00%  
427. 43 LF PROP. 8" DIP @ 1.00%  
428. EXIST. DOWNSPOUT, CONNECT TO PROP. PIPE #429  
INV (8" E @ BLDG.) = 698.36  
429. 14 LF PROP. 8" DIP @ 1.00%  
430. PROP. INV @ PIPE #427 & # 431) = 698.22  
431. 37 LF PROP. 8" DIP @ 1.00%  
432. PROP. INV @ PIPE #439) = 697.85  
433. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #438 & #439  
INV (8" S) = 698.93  
434. 55 LF PROP. 8" DIP @ 1.00%  
435. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #434 AND #436  
INV (#434 8" N) = 698.38  
INV (#436 8" S) = 698.38  
436. 41 LF PROP. 8" DIP @ 1.00%  
437. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #436 AND #438  
INV (#436 8" N) = 697.96  
INV (#438 12" E) = 697.96  
438. 11 LF PROP. 12" DIP STORM SEWER @ 1.00%  
439. 43 LF PROP. 12" DIP STORM SEWER @ 1.40%  
440. PROP. 24" CATCH BASIN  
RIM = 700.50  
INV (15" N) = 697.36  
INV (12" W) = 697.36  
441. 6 LF PROP. 15" RCP @ 0.60%  
442. PROP. 24" CATCH BASIN  
RIM = 700.50  
INV (15" N) = 697.32  
INV (15" S) = 697.32  
443. REMAINING 207 LF EXIST. 15" RCP (#251) @ 0.60%  
444. MODIFIED EXIST. 48" CATCH BASIN (#252)  
RIM = 700.08 (EXIST.)  
RIM = 700.50 (PROP.)  
INV (18" N) = 696.08 (EXIST.)  
INV (15" S) = 696.08 (EXIST.)  
445. 10 LF PROP. 18" RCP @ 0.54%  
446. PROP. 48" CATCH BASIN  
RIM = 700.50  
INV (18" N) = 696.03  
INV (18" S) = 696.03  
447. REMAINING 82 LF EXIST. 18" RCP (#253) @ 0.54%  
476. 3 LF EXIST. 6" SANITARY SEWER  
477. EXIST. SANITARY MANHOLE  
RIM = 701.51  
INV (6" W) = 696.96  
INV (6" SE) = 696.96  
479. EXIST. SANITARY MANHOLE  
RIM = 701.38  
INV (6" NW) = 693.17  
INV (6" SW) = 693.17  
480. 90 LF EXIST. 6" PVC @ 3.76%  
500. REMAINING 14 LF OF EXIST. 6" PVC SANITARY SEWER (#478) @ 3.05%  
501. PROP. 60" SANITARY INSPECTION MANHOLE  
RIM = 702.10  
INV (6" NW) = 693.66  
INV (6" SE) = 693.66  
502. REMAINING 14 LF OF EXIST. 6" PVC SANITARY SEWER (#478) @ 3.05%  
503. PROP. 48" SANITARY MANHOLE  
RIM = 702.60  
INV (6" N) = 694.09  
INV (6" NW) = 694.09  
INV (6" SE) = 694.09  
504. REMAINING 95 LF OF EXIST. 6" PVC SANITARY SEWER (#478) @ 3.05%  
505. INV (6" E @ BLDG.) = 696.79  
506. 30 LF PROP. 6" PVC SDR26 @ 2.00%  
507. PROP. 48" SANITARY MANHOLE  
RIM = 701.40  
INV (6" N) = 695.44  
INV (6" S) = 695.49  
INV (6" W) = 696.49  
508. 5 LF PROP. 6" PVC SDR26 @ 1.00%  
509. PROP. 1000 GALLON OIL/WATER SEPARATOR  
RIM = 701.45  
INV (6" N) = 695.44  
INV (6" S) = 695.11  
510. 85 LF PROP. 6" PVC SDR26 @ 1.00%  
511. PROP. INV (6" E @ BLDG.) = 697.34  
512. 25 LF PROP. 6" PVC SDR26 @ 1.00%  
513. PROP. 48" SANITARY MANHOLE  
RIM = 701.40  
INV (6" S) = 697.07  
INV (6" W) = 697.07  
514. 158 LF PROP. 6" PVC SDR26 @ 1.00%  
600. EXIST. 8" DIWM  
601. EXIST. 8" DIWM  
602. MODIFIED EXIST. FIRE HYDRANT  
RAISE FLANGE TO ELEV. 702.15  
PROVIDE 2 BOLLARDS  
603. CONNECT PROP. 6" DIWM TO EXIST. BUILDING  
604. EXIST. FIRE DEPARTMENT CONNECTION  
605. 40 LF PROP. 6" DIWM (SEE SHEET C-13 PROFILE W-W)
606. PROP. 8" X 6" CUT-IN TEE  
607. 3 LF PROP. 6" DIWM  
608. PROP. FIRE HYDRANT WITH 3 BOLLARDS (SEE SHEET C-32 FOR DETAIL)  
609. EXIST. 12" DIWM  
610. PROP. 60" VALVE VAULT WITH 12" X 8" PRESSURE CONNECTION WITH 8" VALVE  
RIM = 700.87  
611. 80 LF PROP. 8" DIWM  
612. PROP. 135' BEND (TYP. ---)  
613. 160 LF PROP. 8" DIWM  
614. PROP. 8" X 6" CONCENTRIC REDUCER  
615. 4 LF PROP. 6" DIWM  
616. PROP. FIRE HYDRANT WITH 3 BOLLARDS (SEE SHEET C-32 FOR DETAIL)  
617. 40 LF PROP. CASING FOR 6" DIWM  
618. 40 LF PROP. CASING FOR 8" DIWM  
619. REMAINING \_\_\_ LF EXIST. 6" DIWM  
625. MODIFIED EXIST. SINGLE STREET LIGHT TO A DOUBLE (SEE ELECTRICAL PLANS)  
627. PROP. STREET LIGHT (TYP. 5 DURING PHASE 3) (SEE ELECTRICAL PLANS)  
650. EXIST. GAS MAIN (SEE "M" MECHANICAL DRAWINGS)

G&C #19-005

SHEET TITLE: PHASE 3 – UTILITY PLAN  
DRAWN BY: DMC  
CHECKED BY: FDC

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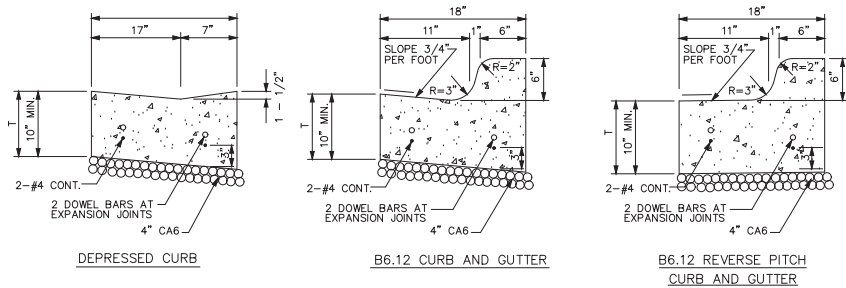


NEW FACILITY  
1290 ENTERPRISE DR., ROMEVILLE, IL

PROJECT NO: 15.120  
SHEET NO:

C-29

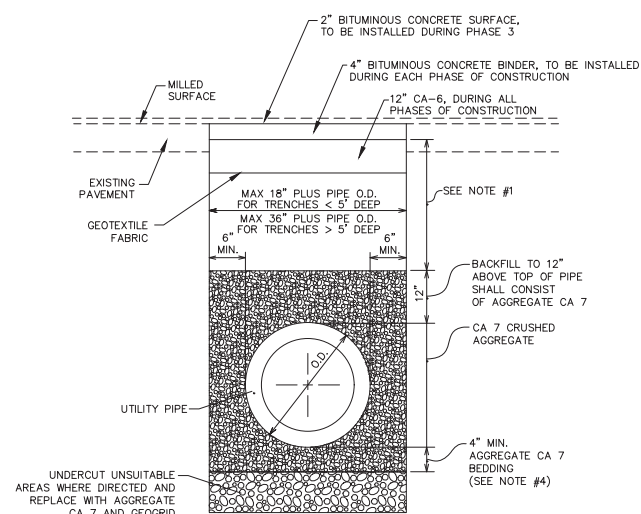
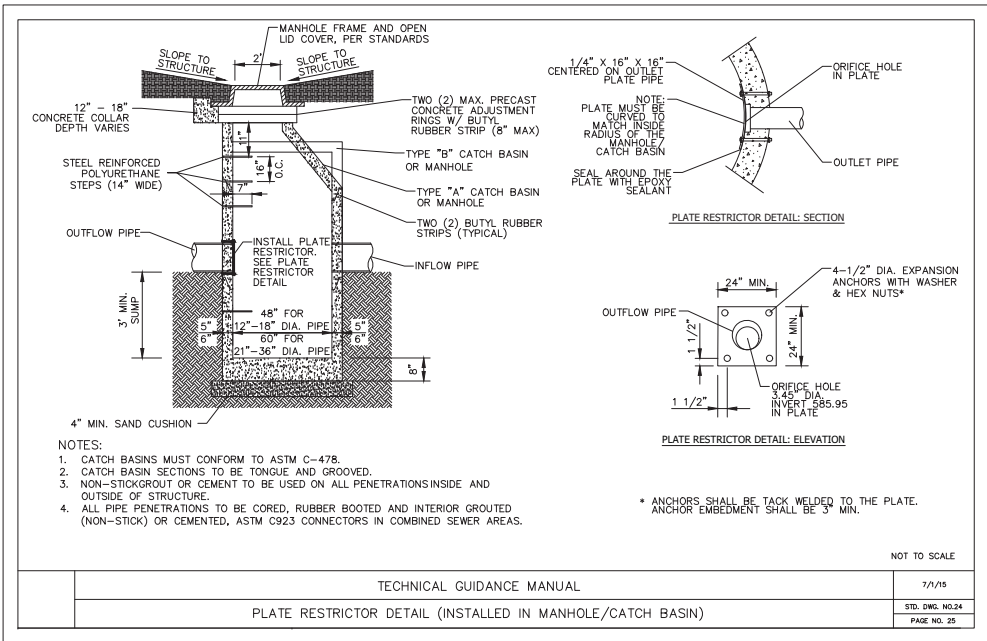
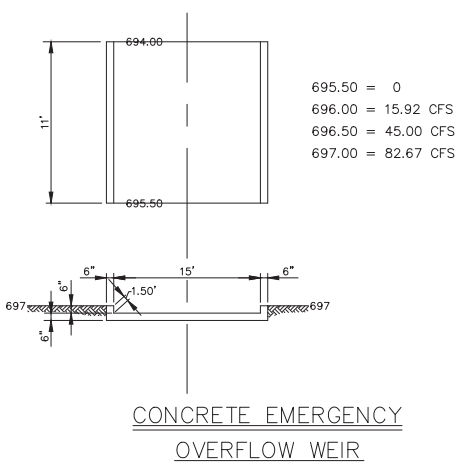
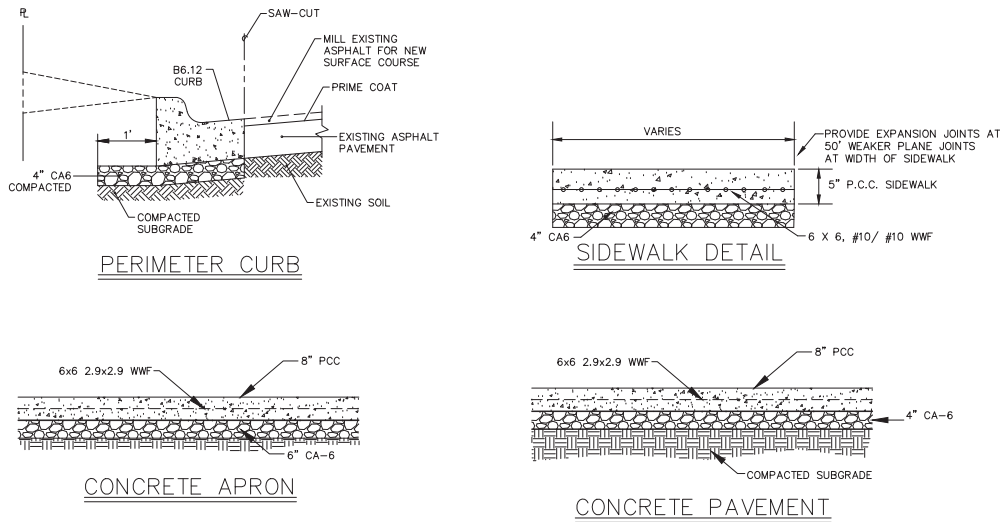




#### GENERAL NOTES

- "T" = PAVEMENT THICKNESS
- PROVIDE CONTROL JOINTS AT 15 FEET O.C. AND EXPANSION JOINTS AT 50 FEET O.C. AND AT THE TANGENT POINTS OF ALL RADII.
- REINFORCING BARS SHALL NOT RUN THROUGH EXPANSION JOINT. LAP BARS 12 INCHES AT ALL SPLICES.
- WHERE CURB AND GUTTER ARE ADJACENT TO P.C. CONCRETE PAVEMENT OR BASE COURSE, THE BARS SHALL BE PROVIDED IN ACCORDANCE WITH ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARDS 2130 AND 2323.
- NOTES:**
1. REINFORCEMENT: PROVIDE NO. 5 STEEL BARS, 10 LONG, CENTERED OVER ALL TRENCH CROSSINGS.
  2. EXPANSION JOINT: PLACE AT ENDS OF ALL RADII AND AT 50' MAX. INTERVALS IN STRAIGHT CURB AND GUTTER. PROVIDE NO. 6 AT 18" LONG SMOOTH STEEL DOWEL BARS WITH 1" DIA. GREASE CAP THRU EXPANSION JOINTS (3/4" THICK BIT. FILLER MATERIAL).
  3. CONTRACTION JOINT: PROVIDE 2" DEEP CONTRACTION JOINTS AT 15' INTERVALS.
  4. PROVIDE CONTINUOUS BARS.

#### CURB DETAILS

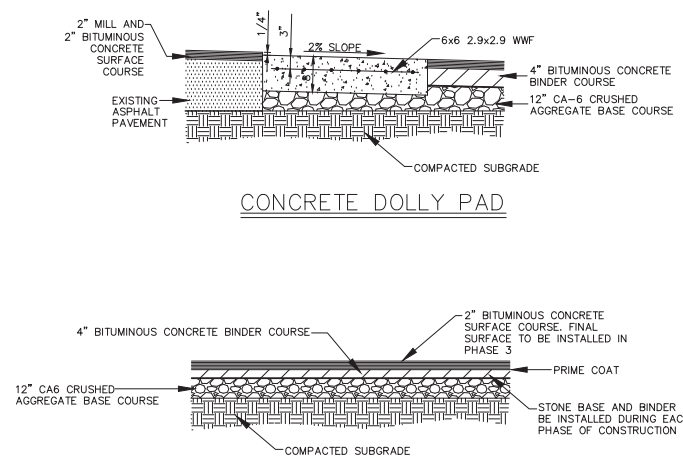


#### NOTES:

1. TRENCH BACKFILL UNDER A PAVED SURFACE OR WITHIN THE ZONE OF INFLUENCE (5' FROM EDGE OF PAVEMENT OR 5' FROM THE BACK OF CURB ON CURBED STREETS) SHALL CONSIST OF:
  - a) UNDER NEW PAVEMENT: 12" THICK PAVEMENT SUBGRADE (AGGREGATE CA 6 CAP) OVER AGGREGATE CA 7 TRENCH BACKFILL OR CONTROLLED LOW STRENGTH MATERIAL (CLSM) MIX 1 (ONLY IF REQUIRED BY THE ENGINEER)
  - b) UNDER EXISTING PAVEMENT: SAME AS 'a' ABOVE
  - c) UNDER PRIVATELY OWNED PAVEMENT: SAME AS 'a' ABOVE
2. ALL MATERIALS SHALL BE PROPERLY COMPACTED PER SPECIFICATIONS (INUNDATION OR WATER JETTING IS NOT ALLOWED).
3. ALL TRENCH EXCAVATIONS SHALL MEET OSHA REQUIREMENTS.
4. BEDDING MATERIAL FOR PVC PIPE INSTALLATION SHALL COMPLY WITH ASTM D-2321.

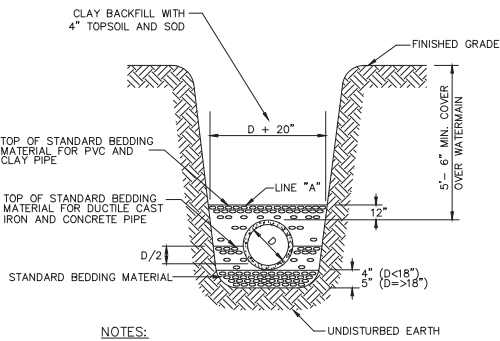
#### UTILITY TRENCH IN PAVEMENT AREAS

NOT TO SCALE



| PAVEMENT MATERIAL                             | FLEXIBLE PAVEMENT HEAVY DUTY (INCHES) |
|-----------------------------------------------|---------------------------------------|
| HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N-50 | 2                                     |
| HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50   | 4                                     |
| GRANULAR SUBBASE (DOT GRADATION CA-6)         | 12                                    |

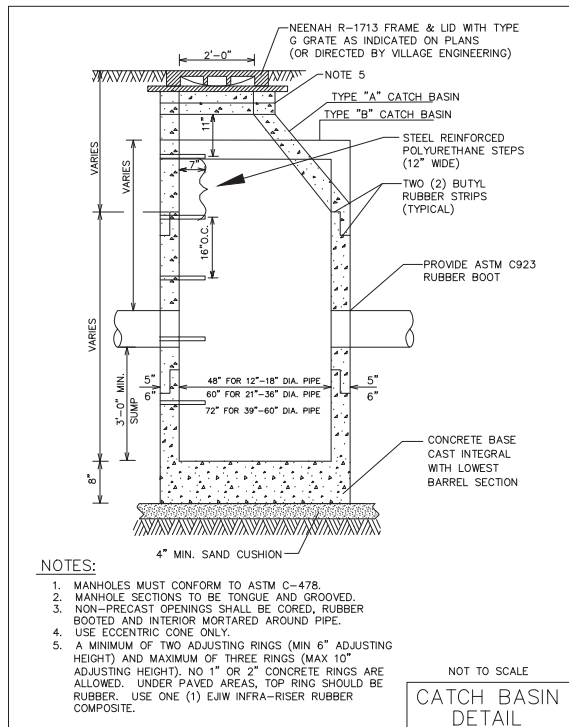
#### ASPHALT PAVEMENT



#### NOTES:

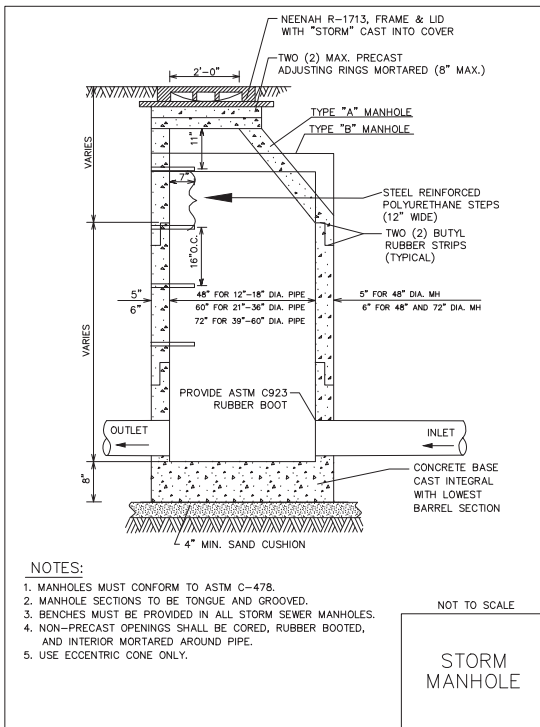
1. STANDARD BEDDING MATERIAL FOR NON-PLASTIC PIPE SHALL BE WELL COMPACTED 1/4 INCH TO 1 INCH CRUSHED STONE. (CA-11 OR CA-15)
2. STANDARD BEDDING FOR PLASTIC PIPE SHALL CONFORM TO ASTM D2321, CLASS II NON-ANGULAR AGGREGATE EXCEPT THE MAXIMUM SIZE SHALL BE 1/2 INCH.
3. SELECT, WELL COMPACTED EXCAVATED MATERIAL SHALL BE PLACED TO LINE "A", IF STANDARD BEDDING MATERIAL IS NOT REQUIRED TO LINE "A".
4. VOIDS LEFT BY SHEETING MATERIAL SHALL BE FILLED WITH STANDARD BEDDING MATERIAL AS THE SHEETING IS REMOVED.

#### UTILITY TRENCH IN NON PAVEMENT AREAS



#### NOTES:

1. MANHOLES MUST CONFORM TO ASTM C-478.
2. MANHOLE SECTIONS TO BE TONGUE AND GROOVED.
3. NON-PRECAST OPENINGS SHALL BE CORED, RUBBER BOOTED AND INTERIOR MORTARED AROUND PIPE.
4. USE ECCENTRIC CONE ONLY.
5. A MINIMUM OF TWO ADJUSTING RINGS (MIN 6" ADJUSTING HEIGHT) AND MAXIMUM OF THREE RINGS (MAX 10" ADJUSTING HEIGHT). NO 1" OR 2" CONCRETE RINGS ARE ALLOWED. UNDER PAVED AREAS, TOP RING SHOULD BE RUBBER. USE ONE (1) EJIW INFRA-RISER RUBBER COMPOSITE.



#### NOTES:

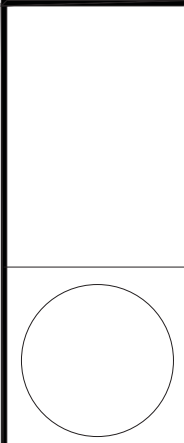
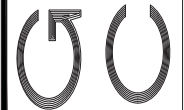
1. MANHOLES MUST CONFORM TO ASTM C-478.
2. MANHOLE SECTIONS TO BE TONGUE AND GROOVED.
3. BENCHES MUST BE PROVIDED IN ALL STORM SEWER MANHOLES.
4. NON-PRECAST OPENINGS SHALL BE CORED, RUBBER BOOTED, AND INTERIOR MORTARED AROUND PIPE.
5. USE ECCENTRIC CONE ONLY.

**G&C CONSULTING ENGINEERS, INC.**

PROFESSIONAL DESIGN FIRM  
PROFESSIONAL ENGINEERING CORP.

184-00805  
28W123 INDUSTRIAL AVENUE  
LAKE BARRINGTON, IL 60010

UNIT 4  
827-9430  
TEL (847)  
gandcengs@bcglobal.net



**NEW FACILITY**  
**1290 ENTERPRISE DR., ROMEVILLE, IL**

DESCRIPTION: VILLAGE REVIEW  
DATE: 05-10-19  
VILLAGE REVIEW  
07-03-19

PROJECT NO: 15.120

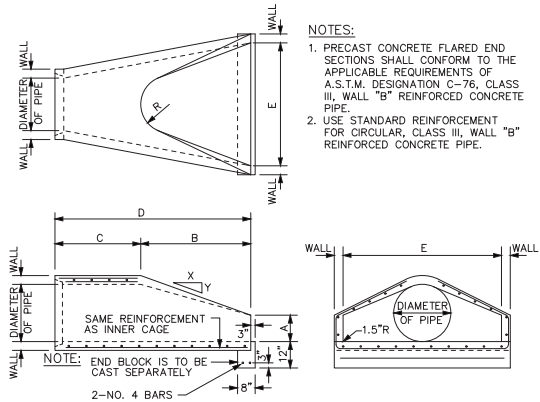
SHEET NO:

G&C #19-005

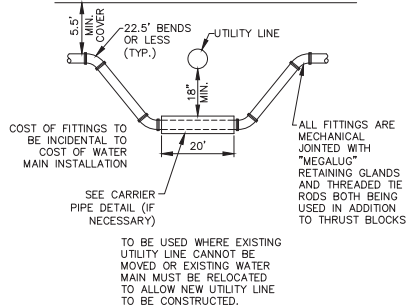
**C-30**

|              |         |
|--------------|---------|
| SHEET TITLE: | DETAILS |
| DRAWN BY:    | DMC     |
| CHECKED BY:  | FDC     |

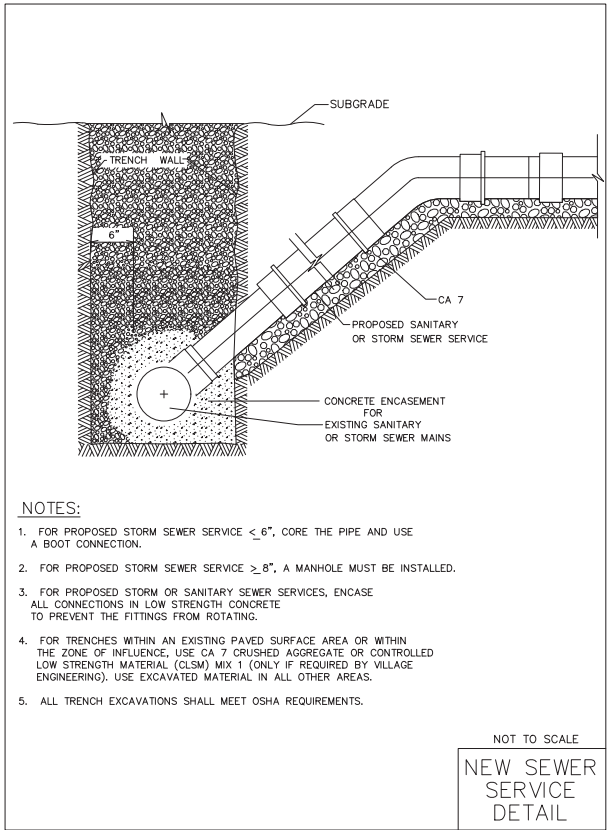
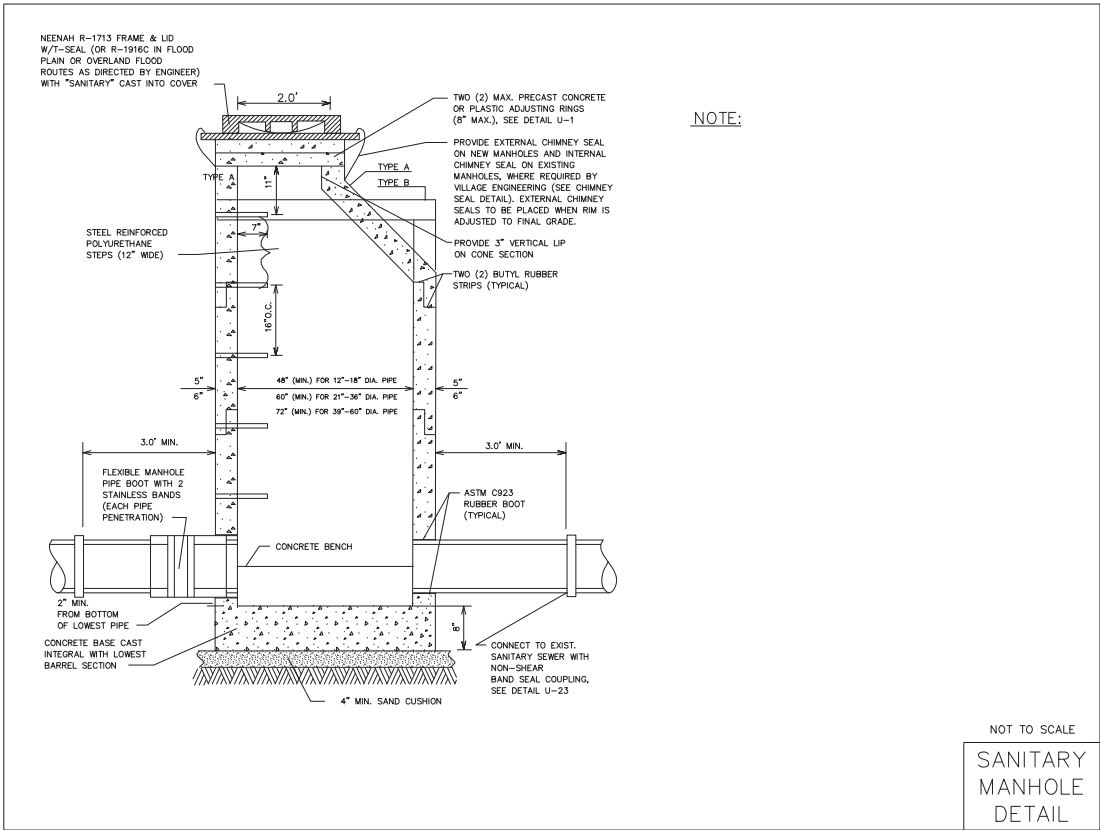
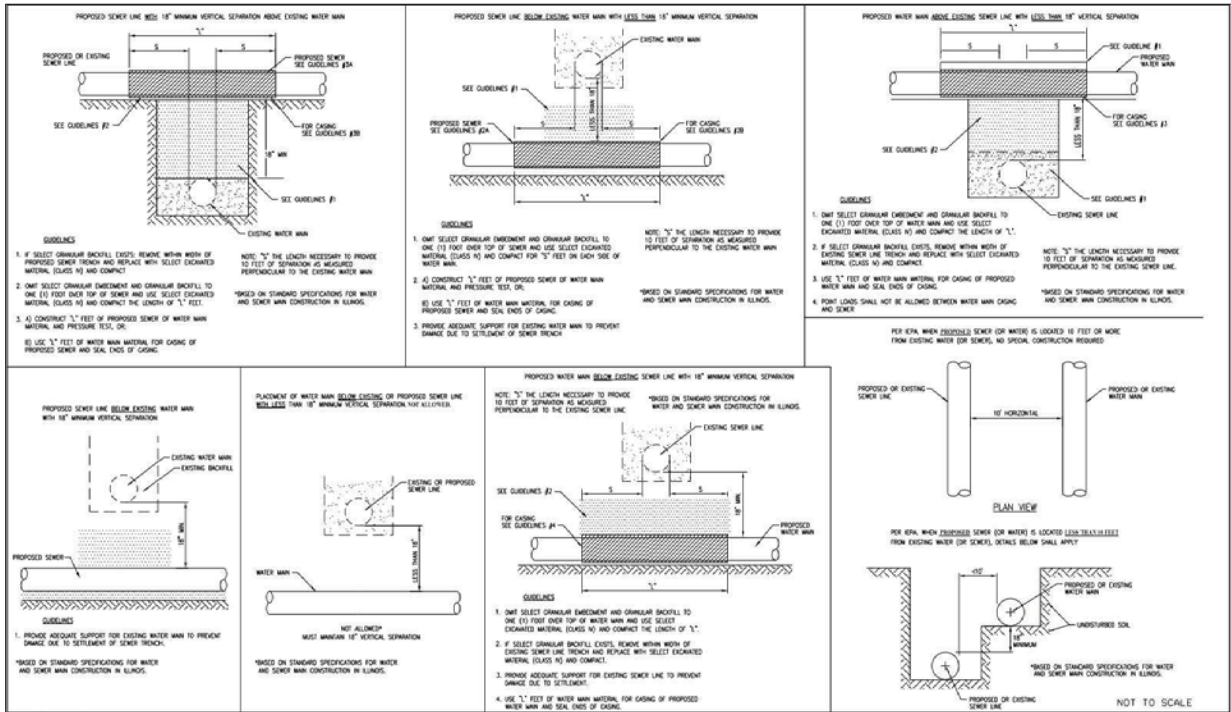
M:\data\PRO\2019\19-005\dwg\19-005\_C-31 DETAILS.dwg, 7/9/2019 1:49:06 PM, 1:1



| PIPE DIA. | WALL   | A      | B         | C         | D         | E     | R   | SLOPE |
|-----------|--------|--------|-----------|-----------|-----------|-------|-----|-------|
| 12"       | 2"     | 4"     | 2'-0"     | 4'-0-7/8" | 6'-0-7/8" | 2'-0" | 9"  | 3:1   |
| 15"       | 2-1/4" | 6"     | 2'-3"     | 3'-10"    | 6'-1"     | 2'-6" | 11" | 3:1   |
| 18"       | 2-1/2" | 9"     | 2'-3"     | 3'-10"    | 6'-1"     | 3'-0" | 12" | 3:1   |
| 21"       | 2-3/4" | 9"     | 2'-11"    | 3'-2"     | 6'-1"     | 3'-6" | 13" | 3:1   |
| 24"       | 3"     | 9-1/2" | 3'-7-1/2" | 2'-6"     | 6'-1-1/2" | 4'-0" | 14" | 3:1   |

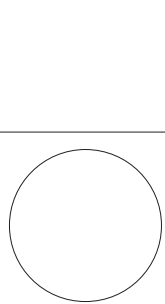


WATER MAIN  
OFF-SET DETAIL  
NOT TO SCALE



NEW FACILITY  
1290 ENTERPRISE DR., ROMEVILLE, IL

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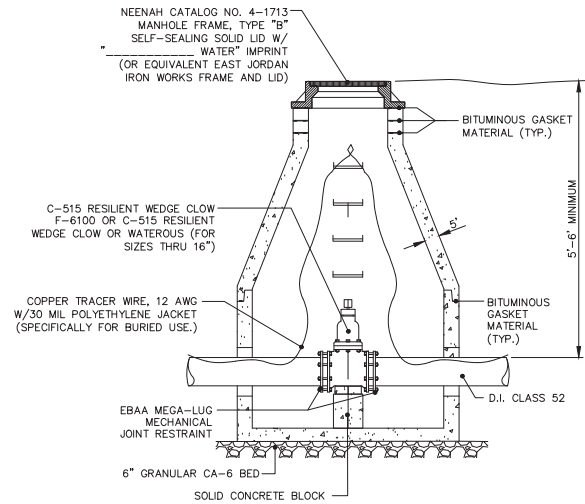
PROJECT NO: 15.120  
SHEET NO:

G&C #19-005

SHEET TITLE: DETAILS  
DRAWN BY: DMC  
CHECKED BY: FDC

C-31

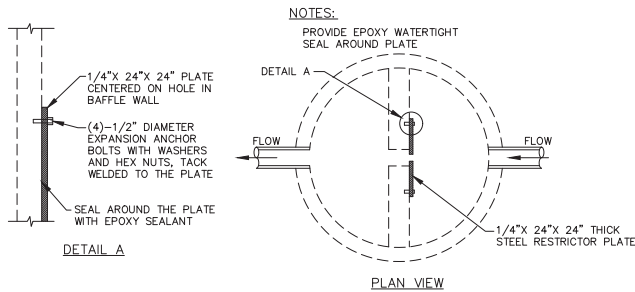
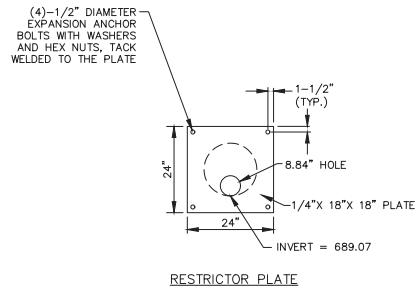




- NOTES:
1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.
  2. ADJUSTMENT: THREE ADJUSTMENT RINGS TOTALING 8" IN HEIGHT MAY BE USED. NO MORE THAN TWO (2) OF THOSE RINGS MAY BE PRECAST CONCRETE. THE TOP RING IN PAVED AREAS WITH CROWN ADJUSTMENTS SHALL BE RUBBER.
  3. STEPS AT 16" O.C. COPOLYMER POLYPROPYLENE PLASTIC WITH A CONTINUOUS 1/2-INCH STEEL REINFORCEMENT.
  4. WATER MAIN SHALL BE CLASS 52 DUCTILE IRON PIPE WITH CEMENT COATING C-104.
  5. FITTINGS SHALL BE ANSI-AWWA C153/A21.53 SSB-COMPACT.
  6. ECCENTRIC CONES SHALL NOT BE USED UNLESS UNDERGROUND CONDITIONS REQUIRE THEM AND THEY ARE ACCEPTED BY THE VILLAGE ENGINEER.
  7. TRACER WIRE SHALL BE CONNECTED TO THE SIDE OF THE VAULT NO MORE THAN 16" BELOW GRADE.

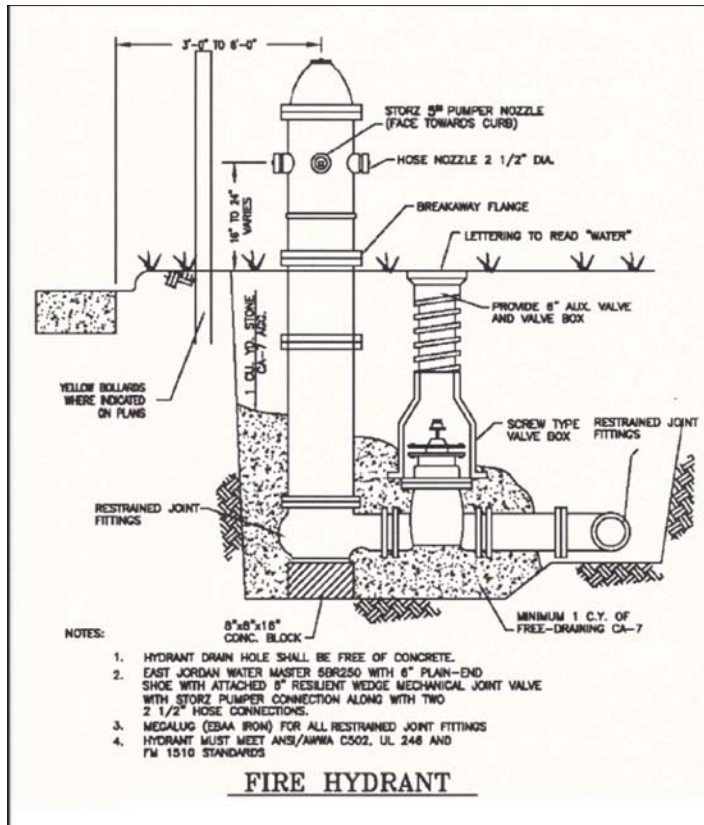
| DIAMETER OF WATER MAIN | VAULT DIAMETER |
|------------------------|----------------|
| 8 and under            | 48             |
| 10 and over            | 60             |

VALVE VAULT TYPE A DETAIL



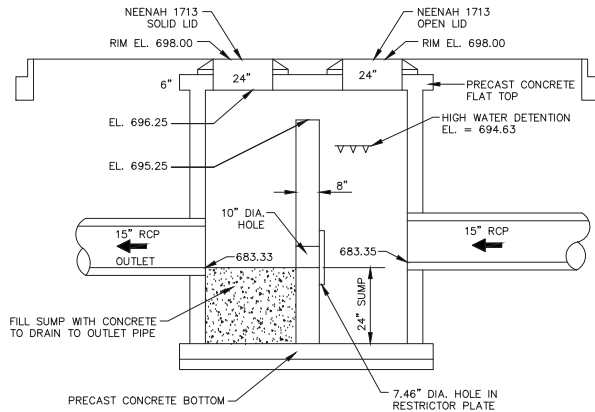
- NOTES:
1. THE RESTRICTOR PLATE AND FASTENERS SHALL BE FABRICATED IN STAINLESS STEEL OR DUCTILE IRON.
  2. THE DEPTH OF THE ANCHOR BOLTS SHALL BE EMBEDDED AT LEAST 3" INTO THE STRUCTURE WALL.

RESTRICTOR PLATE DETAIL

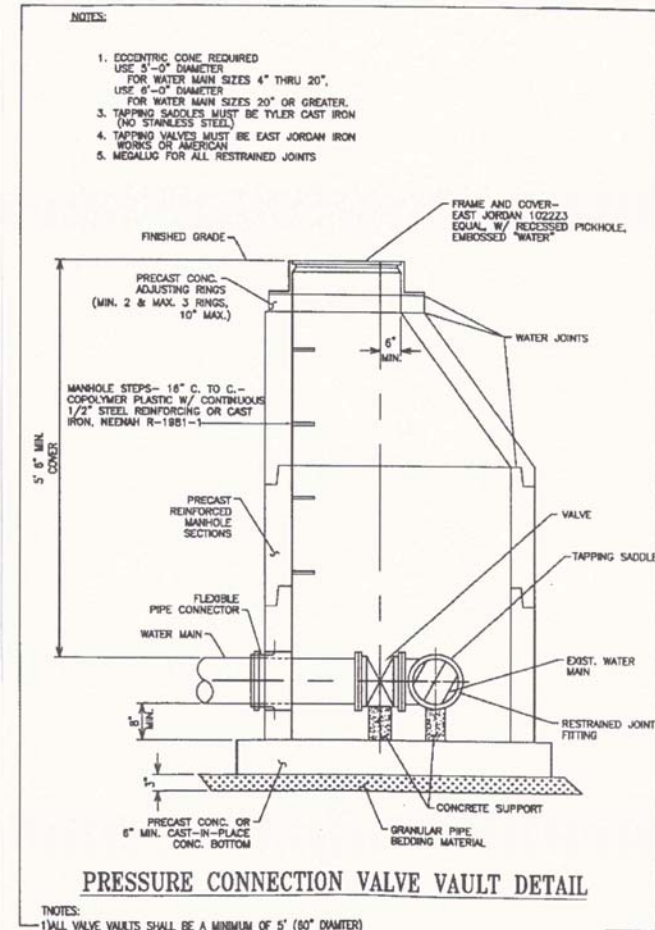


- NOTES:
1. HYDRANT DRAIN HOLE SHALL BE FREE OF CONCRETE.
  2. EAST JORDAN WATER MASTER SBR250 WITH 6" PLAIN-END SHOE WITH ATTACHED 6" RESILIENT WEDGE MECHANICAL JOINT VALVE WITH STORZ PUMPER CONNECTION ALONG WITH TWO 2 1/2" HOSE CONNECTIONS.
  3. MEDALUG (EBAA IRON) FOR ALL RESTRAINED JOINT FITTINGS.
  4. HYDRANT MUST MEET ANSI/AWWA C502, UL 248 AND FM 1510 STANDARDS.

FIRE HYDRANT

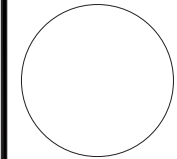
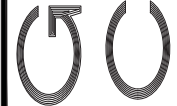


RESTRICTOR MANHOLE DETAIL



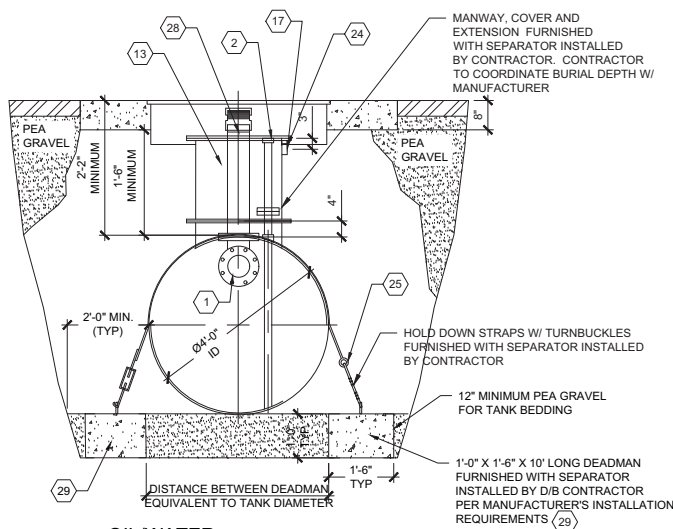
- NOTES:
- 1) ALL VALVE VAULTS SHALL BE A MINIMUM OF 5' (60" DIAMETER)
  - 2) ALL VAULT FRAMES SHALL BE EAST JORDAN #102223 AND COVERS SHALL BE EAST JORDAN #10220A HD EMBOSSED WITH "WATER" AND "VILLAGE OF ROMEDEVILLE".
  - 3) ALL JOINTS NEED TO BE EXTERNALLY WRAPPED WITH MACHRAP BRAND OR VILLAGE APPROVED EDJAL.
  - 4) RUBBER GASKETED BOOTS ARE REQUIRED FOR ALL PENETRATIONS THROUGH THE VAULT STRUCTURE WALLS.
  - 5) INTERNAL/EXTERNAL CHIMNEY SEALS ARE REQUIRED FOR ALL VAULTS
  - 6) MINIMUM OF TWO ADJUSTING RINGS (MIN 6" ADJUSTIN HEIGHT) AND A MAXIMUM OF THREE RINGS (MAX 10" ADJUSTING HEIGHT). NO 1" OR 2" CONCRETE RINGS ARE ALLOWED. UNDER PAVED AREAS, THE VERY TOP RING SHOULD BE ONE(1) EJM INFRA-RISER RUBBER COMPOSITE ADJUSTMENT RISER (1" TO 3" MAX HEIGHT)

FLOWMASTER OR AMERICAN FLOW RESILIENT WEDGE GATE VALVES MUST BE USED FOR PRESSURE CONNECTIONS.

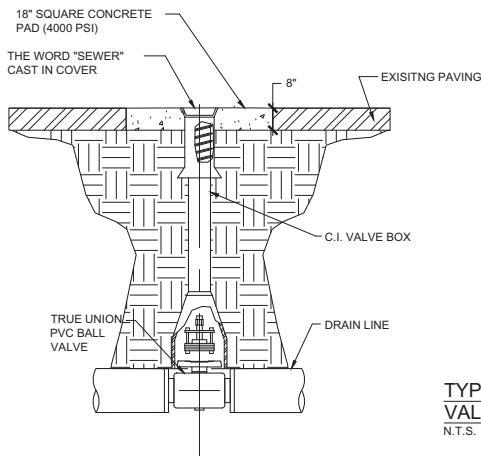


GENERAL NOTES:

- OWNER WILL FURNISH A 1000 GALLON, DOUBLE WALL STEEL OIL/WATER SEPARATOR (OWS) WITH A 100 GPM FLOW RATE. DESIGN/BUILDER SHALL OFF LOAD AND CAREFULLY STORE AS NOT TO DAMAGE THE HIGHGUARD COATING PRIOR TO INSTALLATION. DESIGN/BUILDER SHALL INSPECT AND REPAIR ANY DAMAGED AREAS PER INSTRUCTIONS FROM THE TANK MANUFACTURER.
- D/B CONTRACTOR SHALL OBTAIN ALL PERMITS AND APPROVALS REQUIRED FOR INSTALLATION OF THE OWS.
- ALL DESIGN WORK RELATED TO THE PROJECT MUST BE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL CODES.
- OWS SHALL BE INSTALLED PER HIGHLAND TANK LATEST PUBLISHED OWS OPERATIONS AND INSTALLATION MANUAL AND THE APPROVED RYDER OWS DRAWING.
- OWS TO BE SET AT A MINIMUM BURIAL DEPTH OF 2'-2" BELOW GRADE (8" CONCRETE PAD AND 1'-6" TO TOP OF TANK). VERIFY AND COORDINATE BURIAL DEPTH WITH APPROVED RYDER OWS DRAWING.
- OWS IS TO BE SET AND BACK FILLED WITH THE PROPER SIZE PEA GRAVEL AS NOT TO DAMAGE THE HIGHGUARD COATING. ANCHOR WITH CONCRETE DEADMAN ON EACH SIDE OF TANK.
- D/B CONTRACTOR MUST PROTECT EXCAVATION FROM CAVE-IN BY PROPER EXCAVATION SLOPE OR SHORING AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.
- GRAVITY WATER PIPE SHALL BE SCHEDULE 40 PVC INSTALLED PER ASTM D-1785 AND TESTED PER MANUFACTURER'S INSTRUCTIONS AND LOCAL PLUMBING CODES.
- VENT PIPING BELOW GRADE SHALL BE SCHEDULE 40 PVC, VENT PIPING ABOVE GRADE SHALL BE SCHEDULE 40 GALVANIZED STEEL AND SHALL EXTEND THE GREATER OF 12'-0" ABOVE FINISHED GRADE OR 3'-0" ABOVE BUILDING ROOF LINE.
- D/B CONTRACTOR SHALL INSTALL ALL MANHOLE FRAMES AND COVERS PLATES AS NOTED IN THE DRAWING.
- OWS INLET AND OUTLET PIPING SLOPE TO BE A MINIMUM OF 1% AND A MAXIMUM OF 2% TO MAINTAIN GRAVITY FLOW. OWS OUTLET PIPING SLOPE TO BE EQUAL TO OR GREATER THAN THE INLET PIPING.
- ALL EQUIPMENT - SPECIFIED AS SIMILAR OR APPROVED EQUAL.
- UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE + OR - 1"



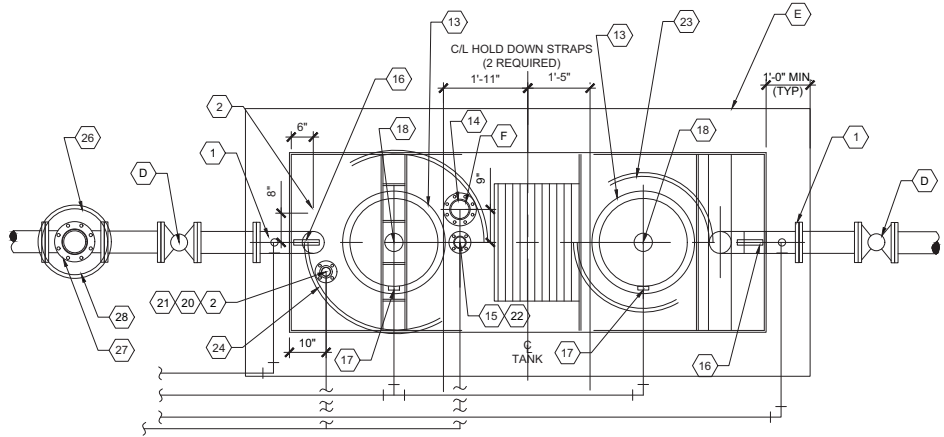
OIL/WATER SEPARATOR - END VIEW  
SCALE: 1/2" = 1'-0"



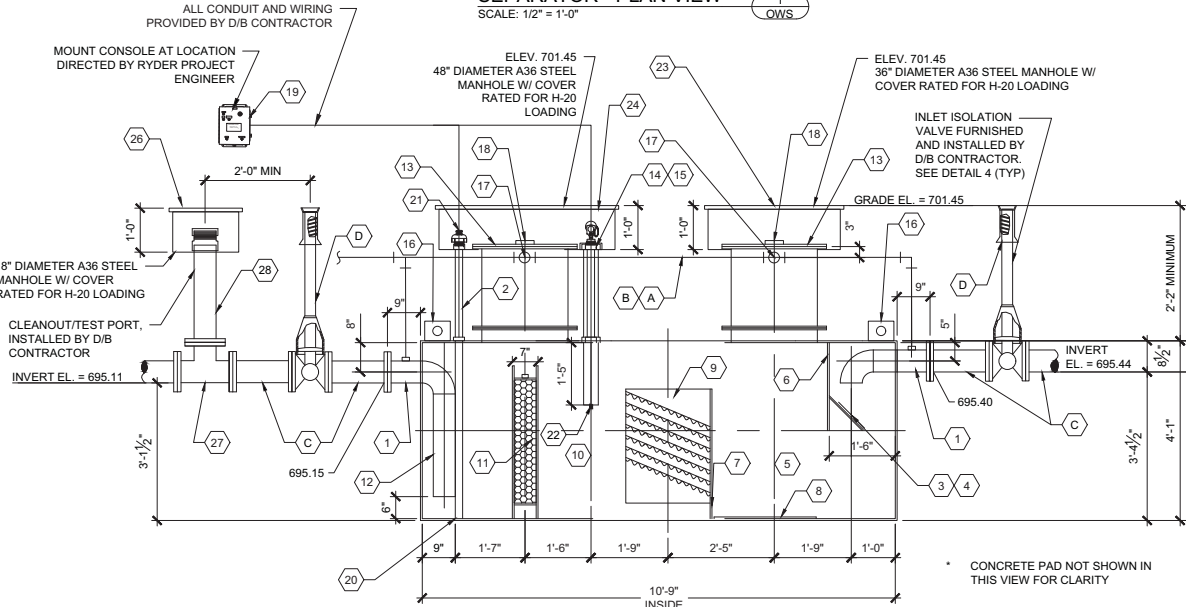
GENERAL NOTES:

- H-20 COVER SHALL BE CAST WITH WORD "SEWER".
- ALL VALVES USED TO HAVE 2" OPERATING NUT AND BURIED VALVE BOX AND CONCRETE VALVE BOX PROTECTOR. VALVES SHALL BE DIRECT QUARTER TURN VALVES.
- TRUE UNION BALL VALVE TO BE SPEARS MODEL 1822-060 OR APPROVED EQUAL.
- PLUG VALVE MAY BE USED IN LIEU OF TRUE UNION PVC BALL VALVE.

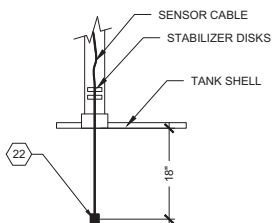
TYPICAL VALVE BOX DETAIL  
N.T.S.



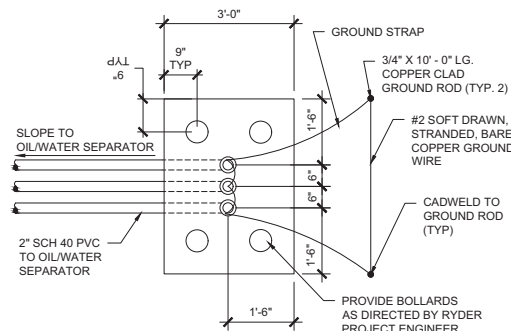
OIL/WATER SEPARATOR - PLAN VIEW  
SCALE: 1/2" = 1'-0"



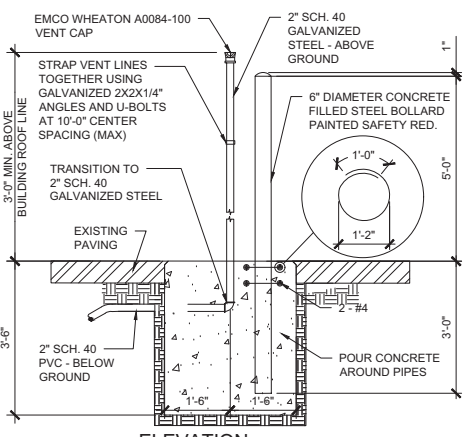
OIL/WATER SEPARATOR - ELEVATION VIEW  
SCALE: 1/2" = 1'-0"



INTERFACE SENSOR  
FLOAT POSITION HTSF-2A-39E/18  
N.T.S.



FREE STANDING VENT RISER  
N.T.S.



ELEVATION

PROVIDED EQUIPMENT:

- 6"Ø 150# R.F.S.O. FLANGE W/ 2" FNPT FOR VENT
- 2" FITTING FOR LEAK DETECTION
- VELOCITY HEAD DIFFUSION BAFFLE
- WEAR PLATE
- SEDIMENT CHAMBER
- UNDERFLOW BAFFLE
- SLUDGE BAFFLE
- STRIKER PLATES
- PARALLEL CORRUGATED PLATE COALESCER. CORELLA PVC PLATES (32" X 32" X 24") (3" PLATE SPACING)
- OIL/WATER SEPARATOR CHAMBER
- 6" THICK PETROSCREEN COALESCER MATERIAL INSTALLED WITH PULL ROD SHIPPED LOOSE (32" X 32" X 6")
- STEEL OUTLET DOWNCOMER
- 24"Ø MANWAY WITH NEO-CORK GASKETS. BOLT-ON EXTENSION SHIPPED LOOSE
- 4"Ø FITTING FOR OIL PUMPOUT W/ INTERNAL PIPE INSTALLED & RISER PIPE SHIPPED LOOSE
- 2" FITTING FOR LEVEL SENSOR W/ RISER PIPE SHIPPED LOOSE
- LIFTING LUG
- 2"Ø FITTING FOR VENT TYP. BOTH MANWAYS
- 4"Ø FITTING FOR GAUGE WITH PLUG TYP. BOTH MANWAYS.
- HTAP2 (2) CHANNEL ALARM PANEL (1PH-60HZ-120V) LOCATED INSIDE FACILITY
- HTLP - 1.5" LIQUID ONLY LEAK SENSOR W/ 15' OF CABLE
- HTSC-2A PVC CAP FOR LEAK SENSOR
- HTSF (1) FLOAT INTERFACE SENSOR W/ NEMA 4 CAP AND 15' CABLE - SEE DETAIL 5
- GLM-36 GRADE LEVEL MANWAY
- GLM-48 GRADE LEVEL MANWAY
- POLYESTER HOLD DOWN STRAPS W/ GALVANIZED TURNBUCKLE, WIRE ROPE, & CLAMPS
- GLM-18 GRADE LEVEL MANWAY
- 6" SCH. 40 PVC FLANGED TEE FOR SAMPLE PORT
- 6" SCH. 40 PVC RISER PIPE BOTTOM END FLANGED, TOP END MALE ADAPTER WITH THREADED CAP
- CDA-15 CONCRETE DEADMAN FOR ANCHORING (2) REQ.

D/B CONTRACTOR PROVIDED EQUIPMENT:

- 2" Ø VENT PIPING, SCHEDULE 40 PVC UNDERGROUND
- 2" Ø VENT PIPING, SCHEDULE 40 GALVANIZED STEEL ABOVEGROUND
- 6" Ø INLET/OUTLET PIPING
- 6" Ø PVC BALL VALVE WITH VALVE BOX
- 4000 PSI CONCRETE TRAFFIC PAD, H-20 LOADING, 8" THK. REINFORCED CONCRETE PAD W/ #4@12 E.W. BOTTOM
- 4" Ø PVC PLUG FOR OIL PUMPOUT

GENERAL SPECIFICATIONS:

- CAPACITY: 1000 GALLONS
- TYPE: UL-HTC, HIGHGUARD, DOUBLE WALL
- MATERIAL: MILD CARBON STEEL
- FLOW RATE: 100 GPM
- GAUGE - SHELL: INNER 7 GA., OUTER 10 GA.
- GAUGE - HEADS: INNER 7 GA., OUTER 10 GA.
- SURFACE PREP INNER: SSPC #10 BLAST ALL INTERIOR SURFACES
- SURFACE PREP OUTER: SSPC #6 BLAST ALL EXTERIOR SURFACES
- COATING - EXTERIOR: POLYURETHANE 75 MILS THICK
- COATING - INTERIOR: POLYURETHANE 15 MILS THICK
- CONSTRUCTION: LAP FIT AND WELD ALL EXTERIOR SEAMS
- OPERATING PRESSURE: ATMOSPHERIC
- EMPTY DRY WEIGHT: ~ 4000 POUNDS

NOTES:

- POLYURETHANE HIGHGUARD TANK IS NOT APPROVED FOR THE STORAGE OF HEATED PRODUCTS.
- TANK HAS A 30 YEAR LIMITED WARRANTY.
- 15000 VOLT SPARK TEST PROVIDED AT FACTORY.

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gandcengs@sbccglobal.net



Ryder

NEW FACILITY  
1290 ENTERPRISE DR., ROMEVILLE, IL

DESCRIPTION: VILLAGE REVIEW  
DATE: 07-03-19

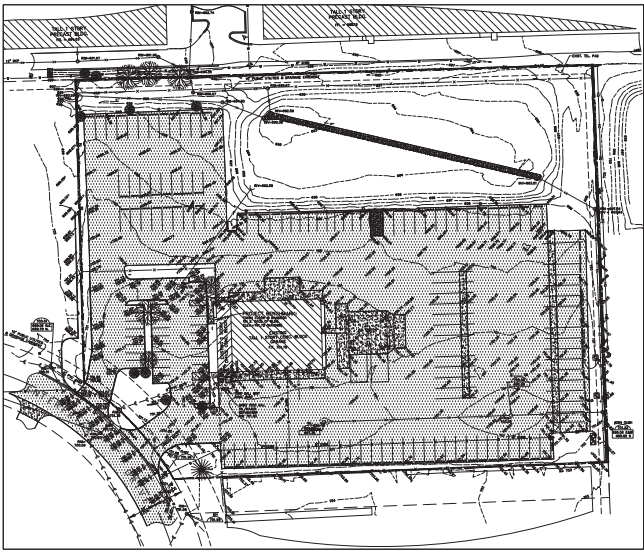
PROJECT NO: 15.120  
SHEET NO:

G&C PROJ. #19-005

SHEET TITLE: OIL/WATER SEPARATOR DETAIL  
DRAWN BY: DMC  
CHECKED BY: FDC

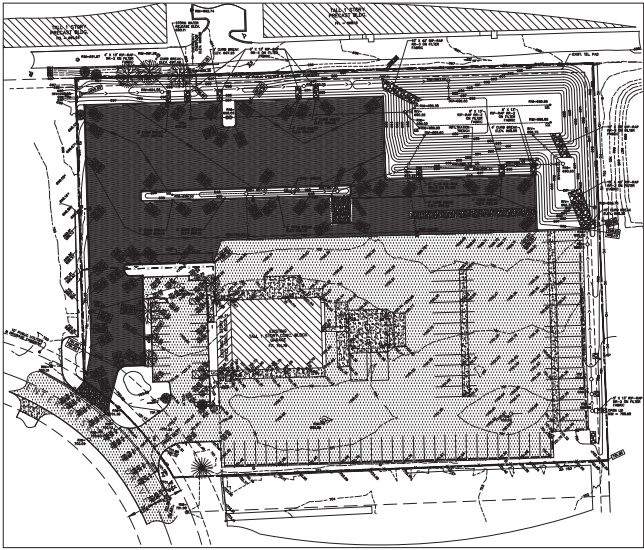
C-33





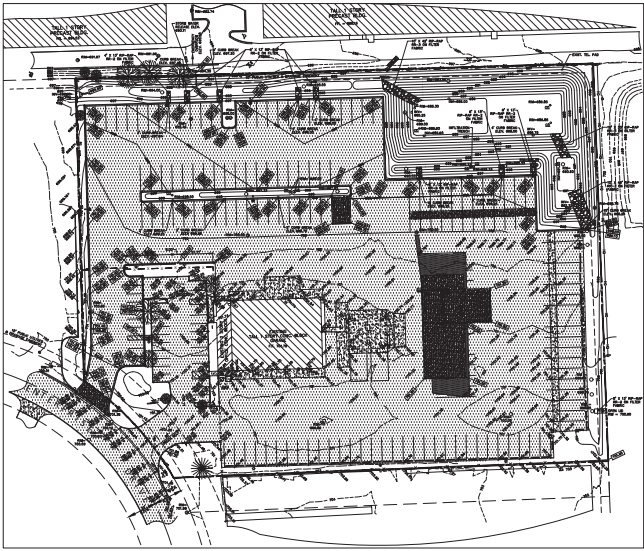
EXISTING CONDITIONS

~SCALE: 1" = 100'~



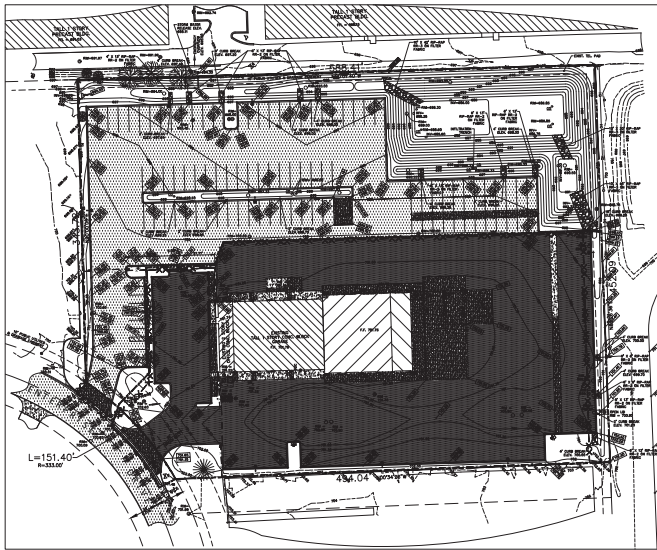
PHASE 1 - STORM WATER POLLUTION PREVENTION PLAN

~SCALE: 1" = 100'~



PHASE 2 - STORM WATER POLLUTION PREVENTION PLAN

~SCALE: 1" = 100'~



PHASE 3 - STORM WATER POLLUTION PREVENTION PLAN

~SCALE: 1" = 100'~

OWNER REPRESENTATIVE

OWNER REPRESENTATIVE THAT HAS LEGAL RESPONSIBILITY FOR MAINTENANCE OF EROSION CONTROL STRUCTURES DURING AND AFTER DEVELOPMENT

ANDRES A. CARVALLO  
RYDER SYSTEMS, INC  
REGIONAL CONSTRUCTION PROJECT  
MANAGER  
11690 NW 105 STREET  
MIAMI, FL 33178  
305-500-5645

EROSION CONTROL NOTES

1. THE EROSION CONTROL PLAN SHALL BE IMPLEMENTED ON ALL DISTURBED AREAS WITHIN THE CONSTRUCTION SITE. ALL MEASURES INVOLVING EROSION CONTROL PRACTICES SHALL BE INSTALLED UNDER THE GUIDANCE OF QUALIFIED PERSONNEL EXPERIENCED IN EROSION CONTROL, AND FOLLOWING THE PLANS AND SPECIFICATIONS INCLUDED HEREIN.
2. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION AND UNTIL ALL LAND DISTURBING AND CONSTRUCTION ACTIVITIES HAVE CEASED. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
3. THE CONTRACTOR SHALL CONTROL WASTES, GARBAGE, DEBRIS, WASTEWATER, AND OTHER SUBSTANCES ON THE SITE IN SUCH A WAY THAT THEY SHALL NOT BE TRANSPORTED FROM THE SITE BY THE ACTION OF WINDS, STORM WATER RUNOFF, OR OTHER FORCES. PROPER DISPOSAL AND MANAGEMENT OF ALL WASTES AND UNUSED CONSTRUCTION MATERIAL, APPROPRIATE TO THE NATURE OF THE WASTES AND MATERIALS IS REQUIRED. COMPLIANCE IS REQUIRED WITH ALL APPLICABLE REGULATIONS REGARDING WASTE DISPOSAL.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AREAS FOR STORAGE OF DISPOSAL OF SOLID, SANITARY, AND TOXIC WASTES, AND VEHICLE OR EQUIPMENT FUELING.
5. EXISTING VEGETATION SHALL BE PROTECTED AS MUCH AS PRACTICAL.
6. THE CONTRACTOR SHALL STOCKPILE TOPSOIL FOR USE IN FINAL LANDSCAPING. THE LOCATION OF THE STOCKPILE AREA SHALL BE DETERMINED BY THE CONTRACTOR, UNLESS OTHERWISE INDICATED ON THE DRAWINGS, AND ALL NECESSARY EROSION AND SEDIMENTATION PREVENTION MEASURES SHALL BE IMPLEMENTED.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ALL MUD, DIRT, GRAVEL, AND ANY OTHER MATERIALS TRACKED ONTO ANY PUBLIC OR PRIVATE STREETS, SIDEWALKS, OR RIGHTS-OF-WAY. THE CONTRACTOR MUST USE WATER OR OTHER METHODS TO KEEP AIRBORNE DUST TO A REQUIRED MINIMUM.
8. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED IMMEDIATELY AFTER THE UTILITY INSTALLATION.
9. INLET PROTECTION SHALL BE INSTALLED AROUND ALL STORM DRAINAGE INLETS.
10. CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT FROM ALL UTILITY STRUCTURES PRIOR TO FINAL SITE STABILIZATION. AT COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE TRANSFER OF RESPONSIBILITIES OF ANY PERMANENT SEDIMENT CONTROL STRUCTURES WITH THE OWNER.
11. ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE REMOVED AND DISPOSED OF WITHIN THIRTY DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED, OR AFTER THE TEMPORARY PRACTICES ARE NO LONGER NEEDED. ACCUMULATED SEDIMENT SHALL BE PERMANENTLY STABILIZED OR PROPERLY DISPOSED OF.
12. THE APPROVED EROSION CONTROL PLAN MUST BE RETAINED ON-SITE AT ALL TIMES DURING THE PERIOD OF CONSTRUCTION.
13. CONSTRUCTION & DEMOLITION DEBRIS (C&D): ALL CONSTRUCTION AND DEMOLITION DEBRIS WASTE WILL BE DISPOSED OF IN A LEGAL MANNER.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR PERMITS AND EROSION CONTROL ASSOCIATED WITH OFFSITE BORROW OR SPOIL AREAS.
15. CONTRACTOR SHALL COMPLY WITH ALL STATE & LOCAL ORDINANCES THAT APPLY.
16. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN .25 INCHES OF RAIN PER 24 HOUR PERIOD.

SOIL PROTECTION CHART

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

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

C. SPRING OATS 100 LBS/ACRE
- B. KENTUCKY BLUEGRASS 135 LBS/ACRE  
MIXED WITH PERENNIAL RYEGRASS  
45 LBS/ACRE + 2 TONS STRAW  
MULCH/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

ROMEOWILLE STORMWATER POLLUTION PREVENTION PLAN NOTES:

1. THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO CONTROL WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE AT THE CONSTRUCTION SITE THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY.
2. ALL STORM SEWER FRAMES AND GRATES/LIDS SHALL BE MARKED WITH "DUMP NO WASTE" AND "DRAINS TO CREEK."
3. A NOTICE OF INTENT (NOI) MUST BE SUBMITTED TO THE NPDES PERMITTING AUTHORITY AND POSTMARKED AT LEAST 30 DAYS BEFORE COMMENCEMENT OF ANY WORK ON-SITE FOR ALL CONSTRUCTION SITES OVER ONE ACRE. INCLUDED IN THE NOI SHALL BE THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), WHICH INCLUDES THE APPROPRIATE BMP'S TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THE CONSTRUCTION SITE.
4. AN INCIDENT OF NON-COMPLIANCE (ION) MUST BE COMPLETED AND SUBMITTED TO THE IEPA IF, AT ANY TIME, AN EROSION OR SEDIMENT CONTROL DEVICE FAILS.
5. A NOTICE OF TERMINATION (NOT) MUST BE COMPLETED AND SUBMITTED TO THE IEPA WHEN ALL PERMANENT EROSION CONTROL MEASURES ARE IN PLACE WITH A 70% ESTABLISHMENT OF VEGETATION.

OWNER CERTIFICATION STATEMENT

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

DATED THIS 3rd DAY OF JULY 2019.

BY: ANDRES A. CARVALLO TITLE: PROJECT MANAGER

COMPANY: RYDER SYSTEMS, INC.

ADDRESS: 11690 NW 105 STREET

MIAMI, FL 33178

TELEPHONE: 305-500-5645

CONTRACTOR CERTIFICATION STATEMENT

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

DATED THIS 3rd DAY OF JULY 2019.

BY: DAVID DINGES TITLE: PROJECT MANAGER

COMPANY: STENSTROM CONSTRUCTION GROUP

ADDRESS: 2420 20th STREET

ROCKFORD, IL 61104

TELEPHONE: 815-398-2420

STORMWATER POLLUTION PREVENTION PLAN NOTES:

1. THE STORMWATER POLLUTION PREVENTION PLAN SHALL BE AVAILABLE ON-SITE AT ALL TIMES DURING THE SITE WORK CONSTRUCTION.
2. THE ORIGINAL PLAN SHALL BE UPDATED AS REQUIRED TO MATCH MAJOR CONSTRUCTION MILESTONES.
3. THE FOLLOWING CERTIFICATES SHALL BE AVAILABLE ON-SITE REFERENCED TO THE UPDATED STORMWATER POLLUTION PREVENTION PLAN:
  - A. WATER SHED DEVELOPMENT PERMIT.
  - B. SWPPP CONTRACTOR OR SUBCONTRACTOR CERTIFICATION
  - C. SWPPP OPERATOR OR OWNER CERTIFICATION
4. STORMWATER POLLUTION PREVENTION MEASURES SHOWN HEREIN ARE THE MINIMUM REQUIRED. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ERRECTING AND MAINTAINING AN EROSION AND SEDIMENT CONTROL SYSTEM TO MEET THE PROVISIONS OF THE "PROCEDURES AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL IN ILLINOIS", AND SHALL MEET ALL REQUIREMENTS OF THE ENVIRONMENTAL PROTECTION AGENCY AND NPDES PERMIT FOR "CONSTRUCTION SITE ACTIVITIES".
5. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL THE AREA THEY PROTECT HAS BEEN SODDED, PAVEMENT HAS BEEN PLACED, OR THE AREA IS OTHERWISE COMPLETELY STABILIZED.
6. ALL DISTURBED AREAS OF THE SITE SHALL BE INSPECTED BY QUALIFIED PERSONNEL OF THE RESPONSIBLE CONTRACTOR EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER EVERY RAINFALL EVENT OF 0.25 INCHES OR MORE TO ASSESS THE INTEGRITY OF THE EROSION AND SEDIMENT CONTROLS. THE INSPECTOR SHALL NOTE ANY DAMAGE OR DEFICIENCIES IN THE CONTROL MEASURES IN AN INSPECTION REPORT. THE RESPONSIBLE CONTRACTOR WITHIN SEVEN CALENDAR DAYS FOLLOWING THE INSPECTION SHALL CORRECT PROBLEM AREAS. USE AS MINIMUM SOIL EROSION AND SEDIMENT CONTROL SE/SC INSPECTION REPORT FORM. REPORTS SHALL BE HELD BY OWNER OR CONTRACTOR FOR THREE YEARS. COPIES OF REPORTS SHALL BE PROVIDED TO THE VILLAGE OR OTHER REVIEW AGENCIES ON REQUEST.
7. THE CONTRACTOR SHALL KEEP A RECORD OF CONSTRUCTION ACTIVITIES INCLUDING DATES WHEN MAJOR GRADING ACTIVITIES OCCUR IN A PARTICULAR AREA. DATES WHEN CONSTRUCTION ACTIVITIES CEASE IN AN AREA, WHETHER TEMPORARILY OR PERMANENTLY, AND DATED WHEN AN AREA IS STABILIZED. STABILIZATION MEASURES SHALL BE INITIATED WITHIN 7 DAYS ON PORTIONS OF DEVELOPMENT WHERE ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED UNLESS ACTIVITY WILL RESUME WITHIN 14 DAYS FROM WHEN ACTIVITY CEASED.
8. IF A CHANGE IN CONSTRUCTION SCHEDULE OCCURS OR THIS PLAN PROVES THROUGH REGULAR INSPECTIONS, TO BE LACKING, THE ENGINEER SHALL BE NOTIFIED SO THAT PLAN MODIFICATIONS CAN BE MADE.
9. NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO ALLOW RAINFALL RUNOFF DIRECTLY FROM THE PROJECT SITE.
10. INLETS AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT-LADEN STORMWATER RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.
11. ALL SLOPES STEEPER THAN 4:1 SHALL RECEIVE EROSION MAT AND SHALL BE STAKED AS NECESSARY.
12. A NOTICE OF TERMINATION FOR THE NPDES CONSTRUCTION GENERAL PERMIT SHALL BE SUBMITTED TO IEPA BY THE CONTRACTOR.
13. TOTAL SITE = 6.02 AC.  
EXISTING IMPERVIOUS = 3.82 AC.  
PROPOSED IMPERVIOUS = 4.96 AC.  
TOTAL SITE TO BE DISTURBED = 6.02 AC.

SEQUENCE OF ACTIVITIES

COORDINATE THESE ACTIONS WITH THOSE SHOWN ON LANDSCAPE DRAWINGS FOR PROPOSED SITE EROSION CONTROL PLAN SEE SHEET 5A FOR EROSION CONTROL DETAILS SEE SHEET 5B

PHASE 1

SEE SEQUENCE OF ACTIVITIES ON SHEET C-16

PHASE 2

SEE SEQUENCE OF ACTIVITIES ON SHEET C-22

PHASE 3

SEE SEQUENCE OF ACTIVITIES ON SHEET C-25

SHORT TERM MAINTENANCE PROGRAM

| STORMWATER CONVEYANCE ELEMENTS    | WEEKLY INSPECTION        | SIGNIFICANT ASPECTS                    | SIGNIFICANT ASPECTS                                        |
|-----------------------------------|--------------------------|----------------------------------------|------------------------------------------------------------|
| GENERAL-ALL AREAS                 | JANUARY THROUGH DECEMBER | DISTURBED SURFACE AREAS                | SEED AREA WITH GRASS OR NATIVE VEGETATION MULCH TO PROTECT |
| SWALES ON SITE                    | JANUARY THROUGH DECEMBER | BRANCHES & LEAVES/TRASH                | COLLECT & DISPOSE                                          |
| EMERGENCY OUTFLOW                 | JANUARY THROUGH DECEMBER | BRANCHES & LEAVES/TRASH PIPE CONDITION | COLLECT & DISPOSE REPAIR/REPLACE                           |
| MANHOLES                          | JANUARY THROUGH DECEMBER | BRANCHES & LEAVES/TRASH PIPE CONDITION | COLLECT & DISPOSE REPAIR/REPLACE                           |
| STORMWATER STORAGE AREA           | JANUARY THROUGH DECEMBER | MOW NON-NATIVE VEGETATION              | REMOVE/DISPOSE REFUSE/GRASS CLIPPINGS                      |
| ALL STORM PIPE                    | JANUARY THROUGH DECEMBER | CHECK FOR SILTATION                    | REMOVE DEBRIS AND SILT IF INDICATED                        |
| NATIVE PLANTINGS (WETLAND PLANTS) | JANUARY THROUGH DECEMBER | SEE NATIVE PLANTINGS REQUIREMENTS      | SEE NATIVE PLANTINGS REQUIREMENTS                          |

LONG TERM MAINTENANCE PROGRAM

| STORMWATER CONVEYANCE ELEMENTS                  | PERIODIC INSPECTION                                               | SIGNIFICANT ASPECTS            |
|-------------------------------------------------|-------------------------------------------------------------------|--------------------------------|
| GRASSY AREAS-SWALES                             | SEED OR SOD                                                       | 5 YEAR INTERVALS               |
| EROSION PRON AREAS                              | DITCH CHECKS TO REDUCE FLOW VELOCITIES OR PLANT NATIVE VEGETATION | INSTALLED OR PLANT AS REQUIRED |
| GRASSY AREAS-PERIPHERY (BUFFER)                 | GROOM SEED                                                        | ANNUALLY 5 YEAR INTERVALS      |
| NATIVE VEGETATION AREAS                         | CONTROLLED BURN                                                   | 2 TO 3 YEAR INTERVALS          |
| IN GRASSY AREA                                  | RESEED                                                            | 5 YEAR INTERVALS               |
| DEPRESSIONAL AREA PERIPHERY-SILTATION (BUFFER)  | REMOVE/RE-SEED                                                    | 5 YEAR INTERVALS               |
| AT CULVERT AND SWALES OUTFALLS, DETENTION PONDS | REMOVE SILTATION RE-SEED RESTORE RIPRAP                           | 5 YEAR INTERVALS               |
| EMERGENCY OUTFLOW PIPES                         | RESTORE/REPLACE INFLOW & OUTFLOW OPENINGS                         | 5 YEAR INTERVALS               |
| MANHOLES & CATCH BASINS                         | RESET COVER/LID                                                   | AS NEEDED BASIS                |

NOTES:

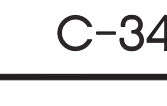
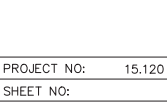
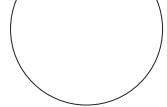
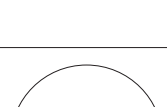
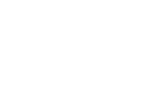
1. OWNER IS RESPONSIBLE TO IMPLEMENT, PLAN AND PAY FOR ALL LONG TERM MAINTENANCE TASKS.
2. GENERAL CONTRACTOR AND LANDSCAPE CONTRACTOR SHALL CONDUCT SHORT TERM MAINTENANCE TASKS UNDER DIRECTION OF OWNER.

G&C #19-005

SHEET TITLE: STORMWATER POLLUTION PREVENTION PLAN  
DRAWN BY: DMC CHECKED BY: FDC

STORM WATER POLLUTION PREVENTION PLAN

G&C CONSULTING ENGINEERS, INC.  
PROFESSIONAL DESIGN FIRM  
PROFESSIONAL ENGINEERING CORP.  
184-00805  
28W123 INDUSTRIAL AVENUE  
LAKE BARRINGTON, IL 60010  
TEL.(847) 827-9430  
gandcengs@sbcglobal.net



PROJECT NO: 15.120  
SHEET NO:

C-34



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24" RCP @ 0.50% = 15.90 CFS FULL FLOW CAPACITY  
Q = 0.75 X 4.88 X 4.55 = 17.50 CFS 1989 DESIGN  
tc = 33 MIN  
100 YR = 4.5 IN/HR

CURRENT WILL COUNTY DESIGN  
RAINSTORM @ 33 MIN.

2 YR 2.255 IN/HR  
10 YR 3.488 IN/HR  
50 YR 4.972 IN/HR  
100 YR 5.936 IN/HR

EAST DETENTION AREA  
= 212,573 SF  
= 4.88 AC

TRIBUTARY DETENTION AREAS  
USED IN AUGUST 1989 CALCULATION

|       | AC    | TOTAL<br>SF | IMPERV.<br>SF | IMPERV.<br>AC |
|-------|-------|-------------|---------------|---------------|
| EAST  | 4.88  | 212,573     | 154,583       | 3.57          |
| RYDER | 6.02  | 262,180     | 190,637       | 4.37          |
| SOUTH | 2.50  | 108,951     | 79,229        | 1.81          |
| TOTAL | 13.40 | 583,704     | 424,449       | 9.75          |

ORIGINAL DESIGN  
AREAS BASED ON Cc OF 0.75  
WITH C IMP. = 0.90  
C PER. = 0.35

$$C_c = \frac{9.75 \text{ A} \times 0.90 + 3.65 \text{ A} \times 0.35}{13.40} = 0.75$$

9.75 A IMP. 1989 DESIGN ASSUMPTIONS FOR DETENTION  
3.65 A PER. REQUIREMENT OF 2.01 AC. FT. IN POND

$$\% \text{ IMP.} = \frac{9.75}{13.40} = 72.7\% \text{ (USE 73\%)}$$

V<sub>2 YR</sub> = 0.15\* X 13.40 = 2.01 AC. FT.  
V<sub>100 YR</sub> = 0.46\* X 13.40 = 6.164 AC. FT. — CURRENT ORDINANCE REQUIREMENTS

\* VALUES FROM APPENDIX E FIGURE 1 @ 73%

DETERMINATION OF 2 YR DETENTION VOLUME 1989 CALCULATIONS (NOT PROVIDED IN 1989)

RATIO OF 100 YR TO 2 YR = 2.01/6.164 = 0.3261

2.01 AC. FT. = 100 YR (1989) DETENTION VOLUME

2.01 X 0.3261 = 0.655 AC. FT. = 2 YR (1989) DETENTION VOLUME

4.92 cfs 100 YR RELEASE

4.92 X 0.3261 = 1.60 cfs 2 YR RELEASE

## ORIGINAL CONDITIONS

1989 DESIGN



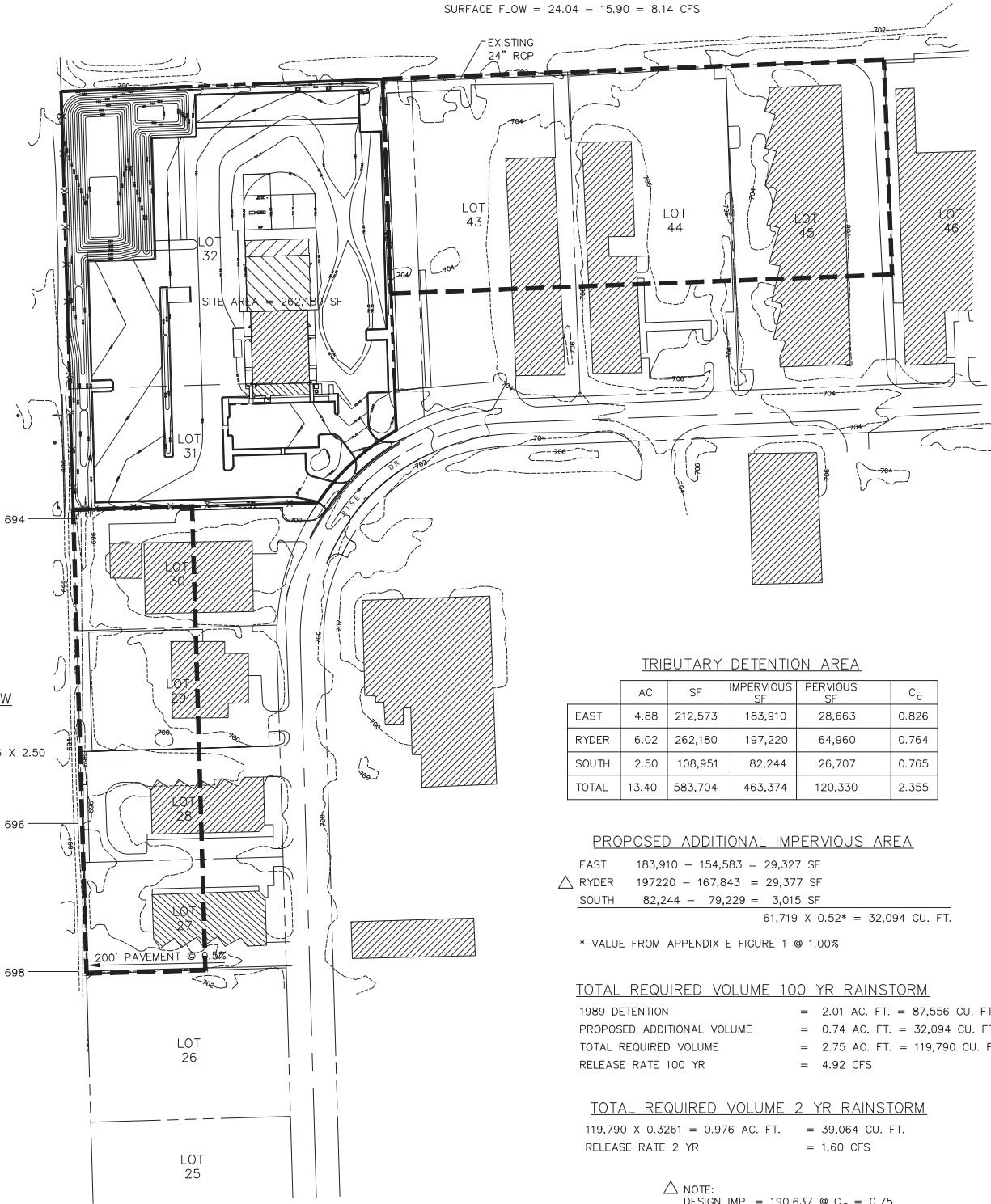
## DETENTION STUDY

SCALE: 1" = 100'



TOTAL 2019 FLOW FROM EAST

Q = CIA  
Q = 0.83 X 5.936 X 4.88  
Q = 24.04 CFS  
SURFACE FLOW = 24.04 - 15.90 = 8.14 CFS



TRIBUTARY DETENTION AREA

|       | AC    | SF      | IMPERVIOUS<br>SF | PERVIOUS<br>SF | C <sub>c</sub> |
|-------|-------|---------|------------------|----------------|----------------|
| EAST  | 4.88  | 212,573 | 183,910          | 28,663         | 0.826          |
| RYDER | 6.02  | 262,180 | 197,220          | 64,960         | 0.764          |
| SOUTH | 2.50  | 108,951 | 82,244           | 26,707         | 0.765          |
| TOTAL | 13.40 | 583,704 | 463,374          | 120,330        | 2.355          |

PROPOSED ADDITIONAL IMPERVIOUS AREA

EAST 183,910 - 154,583 = 29,327 SF  
RYDER 197,220 - 167,843 = 29,377 SF  
SOUTH 82,244 - 79,229 = 3,015 SF  
61,719 X 0.52\* = 32,094 CU. FT.

\* VALUE FROM APPENDIX E FIGURE 1 @ 1.00%

TOTAL REQUIRED VOLUME 100 YR RAINSTORM

1989 DETENTION = 2.01 AC. FT. = 87,556 CU. FT.  
PROPOSED ADDITIONAL VOLUME = 0.74 AC. FT. = 32,094 CU. FT.  
TOTAL REQUIRED VOLUME = 2.75 AC. FT. = 119,790 CU. FT.  
RELEASE RATE 100 YR = 4.92 CFS

TOTAL REQUIRED VOLUME 2 YR RAINSTORM

119,790 X 0.3261 = 0.976 AC. FT. = 39,064 CU. FT.  
RELEASE RATE 2 YR = 1.60 CFS

NOTE:  
DESIGN IMP = 190,637 @ C<sub>c</sub> = 0.75  
USE EX IMP = 167,843

## PROPOSED CONDITIONS

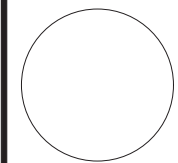
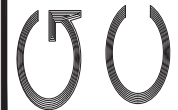
2019 DESIGN



G&C #19-005

SHEET TITLE: DETENTION STUDY  
DRAWN BY: DMC  
CHECKED BY: FDC

G&C CONSULTING  
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NEW FACILITY  
1290 ENTERPRISE DR., ROMEVILLE, IL

PROJECT NO: 15.120

SHEET NO:

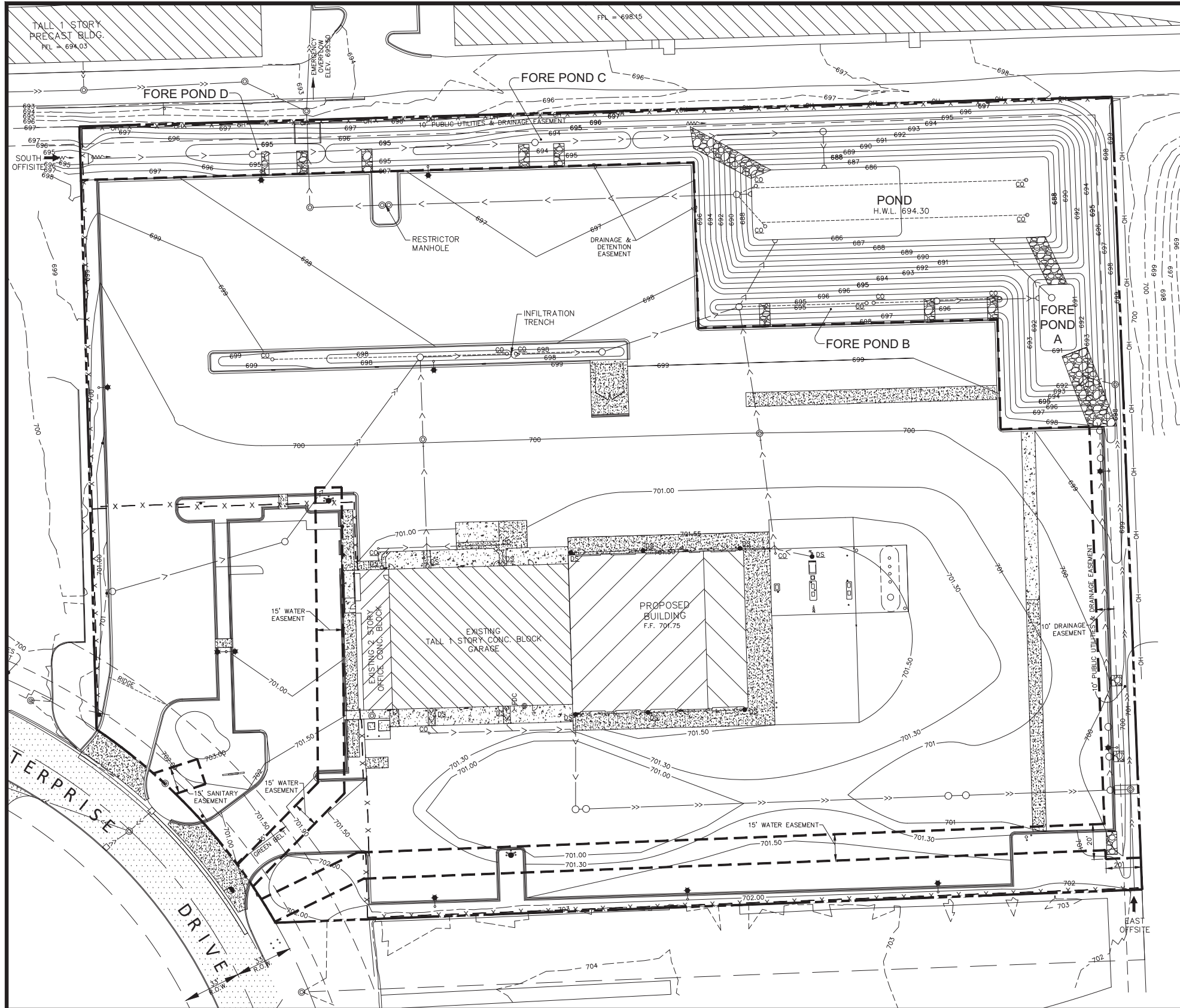
EXH 1A

DESCRIPTION: VILLAGE REVIEW  
DATE: 05-10-19  
VILLAGE REVIEW  
DATE: 07-03-19

WHEN SHEET IS PRINTED CORRECTLY, THE ABOVE SCALE IS IN 1" INCREMENTS



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**SOUTH OFFSITE AREAS**

|                            |   |         |
|----------------------------|---|---------|
| TOTAL AREA                 | = | 108,951 |
| IMPERVIOUS AREA            | = | 82,244  |
| PERVIOUS AREA              | = | 26,707  |
| ALL IN PIPE $t_c = 33$ MIN |   |         |

## DETENTION EXHIBIT

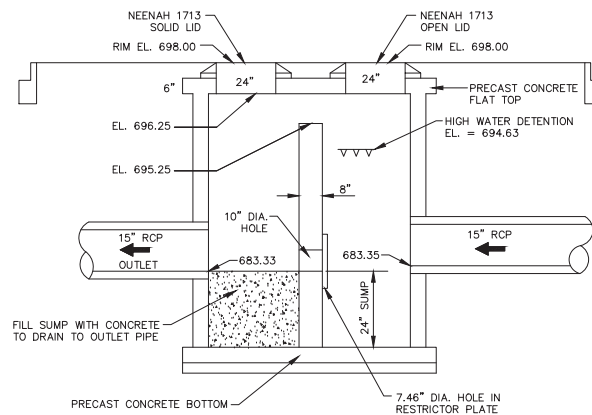
~SCALE: 1" = 30'~



### EAST OFFSITE AREAS:

|                         |   |                      |
|-------------------------|---|----------------------|
| TOTAL AREA              | = | 212,573 SF = 4.88 AC |
| IMPERVIOUS AREA         | = | 183,910 SF           |
| PERVIOUS AREA           | = | 28,663 SF            |
| PIPE IMPERVIOUS AREA    | = | 121,380 SF           |
| PIPE PERVIOUS AREA      | = | 18,917 SF            |
| SURFACE IMPERVIOUS AREA | = | 62,529 SF            |
| SURFACE PERVIOUS AREA   | = | 150,044 SF           |

|                         |   |              |
|-------------------------|---|--------------|
| TOTAL EAST OFFSITE FLOW | = | 24.04        |
| PIPE                    | = | 15.90 OR 66% |
| SURFACE                 | = | 8.14 OR 34%  |
| $t_c$                   | = | 33 MIN       |



## RESTRICTOR MANHOLE DETAIL

### RESTRICTOR CALCULATIONS

$$Q = CA \sqrt{2gh} \quad d^2 = 0.3862$$
$$4.92 = 0.61A \quad 64.4 \times 10.98 \quad d = 0.6244 \text{ FEET}$$
$$A = \frac{4.92}{0.61 \times 26.59} \quad d = 7.457 \text{ INCH}$$
$$\frac{\pi d^2}{4} = 0.3033 \text{ FEET}$$

### POND

| ELEVATION | AREA  | Δ VOL |
|-----------|-------|-------|
| 685.00    | 0     | 0     |
| 686.00    | 3359  | 1680  |
| 687.00    | 7898  | 5629  |
| 688.00    | 9240  | 8569  |
| 689.00    | 10688 | 9964  |
| 690.00    | 12169 | 11429 |
| 691.00    | 13715 | 12942 |
| 692.00    | 15328 | 14522 |
| 693.00    | 17009 | 16169 |
| 694.00    | 21864 | 19437 |
| 695.00    | 26547 | 24206 |
| 696.00    | 32235 | 29391 |
| 697.00    | 38771 | 35503 |

### FORE POND C

| ELEVATION | AREA | Δ VOL |
|-----------|------|-------|
| 693.00    | 0    | 0     |
| 694.00    | 962  | 481   |

### FORE POND A

| ELEVATION | AREA | Δ VOL |
|-----------|------|-------|
| 690.00    | 0    | 0     |
| 691.00    | 756  | 926   |
| 692.00    | 1590 | 926   |
| 693.00    | 2152 | 926   |

### FORE POND B

| ELEVATION | AREA | Δ VOL |
|-----------|------|-------|
| 694.00    | 0    | 0     |
| 695.00    | 488  | 244   |
| 696.00    | 1508 | 998   |

### FORE POND D

| ELEVATION | AREA | Δ VOL |
|-----------|------|-------|
| 694.00    | 0    | 0     |
| 695.00    | 834  | 417   |

| ELEVATION | POND  | POND A | POND B | POND C | POND D | Σ VOL  |
|-----------|-------|--------|--------|--------|--------|--------|
|           | Δ VOL | Δ VOL  | Δ VOL  | Δ VOL  | Δ VOL  |        |
| 685.00    | 0     |        |        |        |        | 0      |
| 686.00    | 1680  |        |        |        |        | 1680   |
| 687.00    | 5629  |        |        |        |        | 7309   |
| 688.00    | 8569  |        |        |        |        | 15878  |
| 689.00    | 9964  |        |        |        |        | 25842  |
| 690.00    | 11429 | 0      |        |        |        | 37271  |
| 691.00    | 12942 | 378    |        |        |        | 50591  |
| 692.00    | 14522 | 1173   |        |        |        | 66286  |
| 693.00    | 16169 | 1871   |        | 0      |        | 84326  |
| 694.00    | 19437 |        | 0      | 481    | 0      | 104244 |
| 695.00    | 24206 |        | 244    |        | 417    | 129111 |
| 696.00    | 29391 |        | 998    |        |        | 159500 |
| 697.00    | 35503 |        |        |        |        | 195003 |

|                             |   |               |   |                 |
|-----------------------------|---|---------------|---|-----------------|
| ORIG. 100 YR DETENTION REQ. | = | 2.01 AC. FT.  | = | 87,556 CU. FT.  |
| TOTAL 100 YR REQ. DETENTION | = | 2.75 AC. FT.  | = | 119,790 CU. FT. |
| NEW 100 YR HIGH WATER       | = | 694.63        |   |                 |
| 2 YR REQ. DETENTION         | = | 0.976 AC. FT. | = | 39,064 CU. FT.  |
| 2 YR HIGH WATER             | = | 690.13        |   |                 |
| NEW EMERGENCY OVER FLOW     | = | 695.50        |   |                 |

G&C #19-005

SHEET TITLE: DETENTION EXHIBIT

DRAWN BY: DMC

CHECKED BY: FDC

G&C CONSULTING  
ENGINEERS, INC.

PROFESSIONAL DESIGN FIRM  
PROFESSIONAL ENGINEERING CORP.  
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FACILITY EXPANSION  
1290 enterprise dr, romeo, il 60446

VILLAGE REVIEW

VILLAGE REVIEW

DATE: 05-10-19

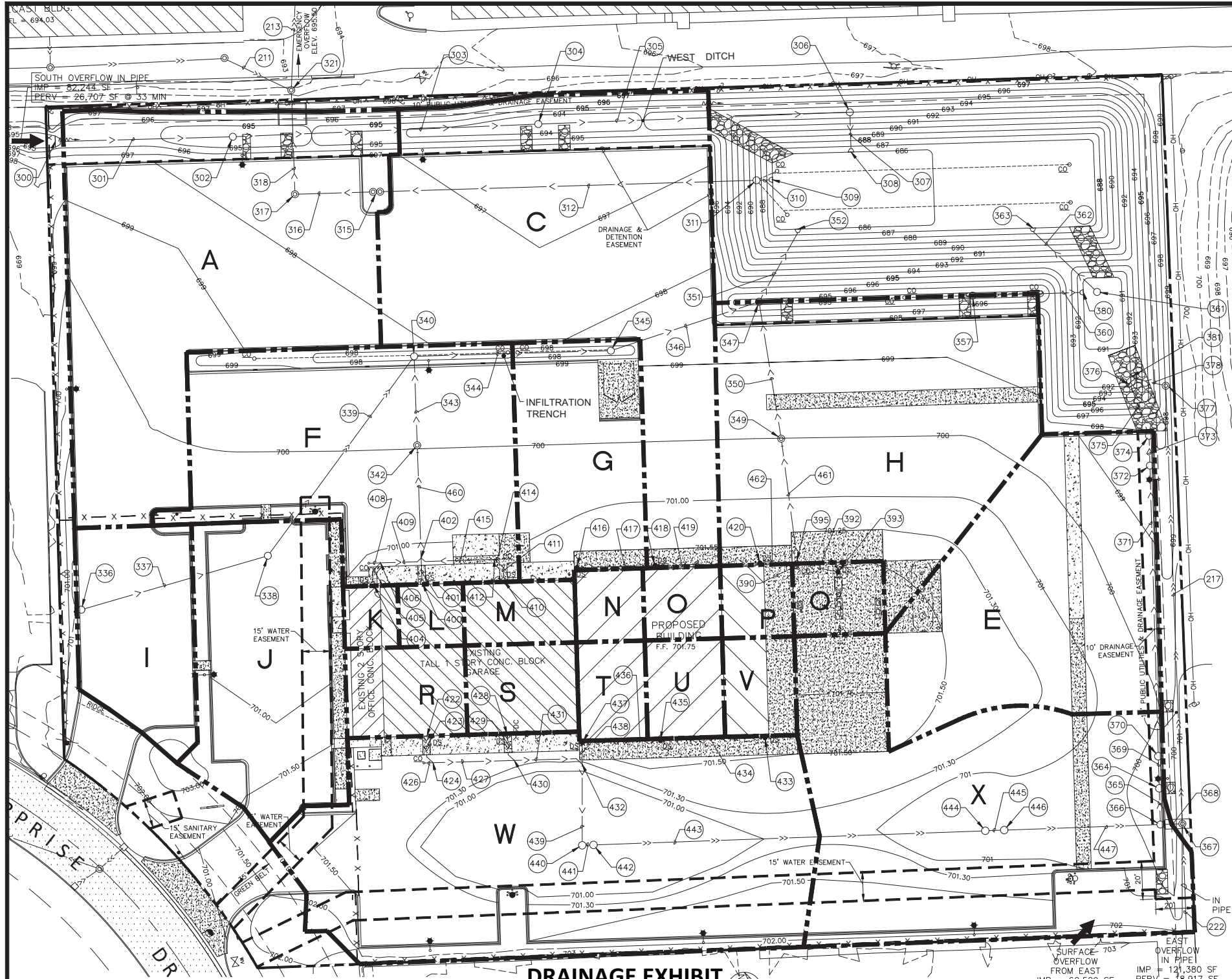
PROJECT NO: 15.120

SHEET NO:

EXH 1B



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DRAINAGE PROJECT NOTES:

211. 39 LF EXIST. 24" PVC STORM SEWER @ 1.41%  
213. 69 LF EXIST. 30" PVC STORM SEWER @ 1.61%  
217. EXIST. 24" RCP @ 0.53%  
222. EXIST. 24" RCP @ 0.50%  
300. PROP. FLARED END  
INV (15" N) = 693.50  
301. 91 LF PROP. 15" RCP @ 3.10%  
302. PROP. 48" CATCH BASIN WITH NEENAH R4353 BEEHIVE GRATE  
RIM = 694.00  
INV (24" N) = 689.84  
INV (15" S) = 690.68  
303. 161 LF PROP. 24" RCP @ 0.40%  
304. PROP. 48" CATCH BASIN WITH NEENAH R4353 BEEHIVE GRATE  
RIM = 693.00  
INV (24" N) = 689.20  
INV (24" S) = 689.20  
305. 164 LF PROP. 24" RCP @ 0.57%  
306. PROP. 60" CATCH BASIN WITH NEENAH R4340B BEEHIVE GRATE  
RIM = 693.00  
INV (24" S) = 688.27  
INV (24" E) = 686.11  
307. 19 LF PROP. 24" RCP @ 0.57%  
308. PROP. FLARED END SECTION  
INV (15" W) = 686.00  
309. PROP. FLARED END SECTION  
INV (15" S) = 685.25  
310. 7 LF PROP. 15" RCP @ 0.20%  
311. PROP. 48" CATCH BASIN WITH R4340B BEEHIVE GRATE  
RIM = 689.00  
INV (15" N) = 685.23  
INV (15" S) = 683.75  
INV (4" NW) = 683.75  
312. 200 LF PROP. 15" RCP @ 0.20%  
315. PROP. 60" RESTRICTOR MANHOLE (SEE SHEET C-32 FOR DETAIL)  
RIM = 698.00  
INV (15" N) = 683.33  
INV (15" S) = 683.33  
316. 43 LF PROP. 15" RCP @ 0.20%  
317. PROP. 48" STORM MANHOLE  
RIM = 697.45  
INV (15" N) = 683.26  
INV (15" W) = 683.26  
318. 55 LF PROP. 15" RCP @ 0.20%  
321. MODIFIED EXIST. STORM MANHOLE #212  
RIM = 694.30  
INV (15" E) = 683.15  
INV (24" SW) = 682.70  
INV (30" W) = 695.61  
335. 84 LF PROP. 6" PVC SDR26 PERFORATED PIPE UNDERDRAIN @ 1.78%  
336. PROP. 48" CATCH BASIN  
RIM = 700.80  
INV (12" NW) = 697.30  
337. 102 LF PROP. 12" RCP @ 1.00%  
338. MODIFIED EXISTING CATCH BASIN (#214)  
RIM = 700.00  
INV (12" NW) = 695.84  
INV (12" SE) = 696.28  
339. REMAINING 130 LF OF MODIFIED EXIST. 12" RCP (#215) @ 2.70%  
340. PROP. 48" CATCH BASIN WITH R4340B BEEHIVE GRATE  
RIM = 697.33  
INV (18" N) = 692.36  
INV (6" SE) = 688.62  
INV (6" S) = 694.50  
INV (8" E) = 695.61  
INV (12" SE) = 692.36  
342. PROP. 48" STORM MANHOLE  
RIM = 700.00  
INV (8" E) = 697.02  
INV (8" W) = 697.02  
343. 47 LF PROP. 8" DIP @ 3.00%  
344. 104 LF PROP. 18" RCP @ 1.00%  
345. PROP. 48" CATCH BASIN WITH R4340B BEEHIVE GRATE  
RIM = 697.33  
INV (18" S) = 691.32  
INV (6" S) = 694.50  
INV (18" NW) = 689.44  
346. 82 LF PROP. 18" RCP @ 1.00%  
347. PROP. 48" CATCH BASIN WITH NEENAH R4353 BEEHIVE GRATE  
RIM = 695.33  
INV (24" NW) = 686.21  
INV (18" SE) = 688.62  
INV (8" E) = 691.54  
INV (6" N) = 692.50  
350. 73 LF PROP. 8" DIP @ 2.00%  
351. 42 LF PROP. 24" RCP @ 0.50%  
352. PROP. FLARED END SECTION  
INV (24" SE) = 685.60  
357. PROP. 48" CATCH BASIN  
RIM = 695.33  
INV (15" N) = 691.58  
INV (6" N) = 692.50  
INV (6" S) = 692.50  
360. 58 LF PROP. 15" RCP @ 1.00%  
361. PROP. 60" CATCH BASIN WITH NEENAH R4340B BEEHIVE GRATE  
RIM = 690.50  
INV (24" SW) = 686.82  
362. 47 LF PROP. 24" RCP @ 0.15%  
363. PROP. FLARED END SECTION  
INV (24" NE) = 686.75  
364. PROP. 48" CATCH BASIN  
RIM = 699.70  
INV (18" E) = 693.85  
INV (18" W) = 693.85  
365. 19 LF PROP. 18" RCP @ 1.00%  
366. PROP. 60" CATCH BASIN  
RIM = 698.85  
INV (18" N) = 695.58  
INV (18" S) = 695.58  
INV (18" W) = 693.95  
367. MODIFIED EXIST. 60" STORM MANHOLE #254  
RIM = 700.90 OPEN LID  
INV (18" S) = 695.52  
INV (24" E) = 695.06  
INV (24" W) = 695.06  
368. REMAINING 12 LF EXIST. 18" RCP #253 @ 0.54%  
369. 17 LF PROP. 18" RCP @ 1.00%  
370. PROP. 48" CATCH BASIN  
RIM = 699.85  
INV (18" E) = 693.68  
INV (18" W) = 693.68

DRAINAGE EXHIBIT

SCALE: 1" = 30'



RYDER TRIBUTARY AREAS

|       | TOTAL<br>S.F. | PERVIOUS<br>S.F. | IMPERVIOUS<br>S.F. |
|-------|---------------|------------------|--------------------|
| A     | 26739         | 4932             | 21807              |
| B     |               |                  |                    |
| C     | 26747         | 4522             | 22225              |
| D     |               |                  |                    |
| E     | 17112         | 0                | 17112              |
| F     | 18966         | 1711             | 17255              |
| G     | 8273          | 660              | 7316               |
| H     | 22558         | 1959             | 20599              |
| I     | 6598          | 401              | 6197               |
| J     | 12072         | 1437             | 10635              |
| K     | 943           | 0                | 943                |
| L     | 1133          | 0                | 1133               |
| M     | 1940          | 0                | 1940               |
| N     | 1372          | 0                | 1372               |
| O     | 1554          | 0                | 1554               |
| P     | 1452          | 0                | 1452               |
| Q     | 1830          | 0                | 1830               |
| R     | 2978          | 0                | 2978               |
| S     | 2768          | 0                | 2768               |
| T     | 1872          | 0                | 1872               |
| U     | 2117          | 0                | 2117               |
| V     | 1970          | 0                | 1970               |
| W     | 30076         | 2723             | 27353              |
| X     | 24816         | 3432             | 21384              |
|       |               |                  |                    |
| TOTAL | 215886        | 21777            | 22045              |

SOUTH TRIBUTARY AREAS

|         | TOTAL<br>S.F. | PERVIOUS<br>S.F. | IMPERVIOUS<br>S.F. |
|---------|---------------|------------------|--------------------|
| PIPE    | 108951        | 82244            | 16707              |
| SURFACE | 0             | 0                | 0                  |

EAST TRIBUTARY AREAS

|         | TOTAL<br>S.F. | PERVIOUS<br>S.F. | IMPERVIOUS<br>S.F. |
|---------|---------------|------------------|--------------------|
| PIPE    | 183910        | 18917            | 121380             |
| SURFACE | 28663         | 9745             | 62529              |

DRAINAGE PROJECT NOTES  
(CONTINUED):

371. 153 LF PROP. 18" RCP @ 0.80%  
372. PROP. 48" CATCH BASIN  
RIM = 698.15  
INV (18" E) = 692.75  
INV (24" W) = 692.50  
373. 16 LF PROP. 24" RCP @ 0.40%  
374. PROP. 60" CATCH BASIN  
RIM = 698.00  
INV (24" E) = 692.44  
INV (24" SW) = 692.44  
375. 28 LF PROP. 24" RCP @ 0.40%  
376. PROP. FLARED END SECTION  
INV (24" NE) = 692.32  
377. PROP. 48" OPEN LID STORM MANHOLE  
RIM = 698.75  
INV (24" SW) = 692.44  
INV (24" E) = 693.84  
378. 20 LF PROP. 24" RCP @ 0.60%  
380. PROP. FLARED END SECTION  
INV (24" NE) = 692.32  
381. PROP. FLARED END SECTION  
INV (24" NE) = 692.32  
390. 5 LF PROP. 8" DIP @ 2.00%  
392. 23 LF PROP. 8" DIP @ 1.00%  
393. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #392  
INV (8" SW) = 697.82  
395. PROP. INVERTS  
INV (8" NW) = 697.59  
INV (8" S) = 697.59  
INV (8" E) = 697.59  
INV (8" W) = 697.59  
400. EXIST. DOWNSPOUT, CONNECT TO PROP. PIPE #401  
INV (8" W.) = 698.48  
401. 13 LF PROP. 8" DIP @ 2.00%  
402. PROP. INV = 698.22  
404. EXIST. DOWNSPOUT, CONNECT TO PROP. PIPE #405  
INV (6" W) = 698.65  
405. 13 LF PROP. 6" DIP @ 1.00%  
406. PROP. INV = 698.62  
408. 6 LF PROP. 6" DIP @ 1.00%  
409. 22 LF PROP. 6" DIP @ 1.27%  
410. EXIST. DOWNSPOUT, CONNECT TO PROP. PIPE #411  
INV (6" W) = 698.73  
411. 13 LF PROP. 6" DIP @ 1.00%  
412. PROP. INV (6") = 698.62  
414. 2 LF PROP. 6" DIP @ 0.95%  
415. 39 LF PROP. 6" DIP @ 1.00%  
416. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #417  
INV (8" N) = 698.75  
417. 41 LF PROP. 8" DIP @ 1.00%  
418. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #417 AND #419  
INV (#419 8" N) = 698.34  
INV (#418 8" S) = 698.34  
419. 55 LF PROP. 8" DIP @ 1.00%  
420. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #419 AND #421  
INV (#421 8" N) = 697.79  
INV (#419 8" S) = 697.79  
422. EXIST. DOWNSPOUT, CONNECT TO PROP. PIPE #423  
INV (8" E @ BLDG.) = 698.78  
423. 14 LF PROP. 8" DIP @ 1.00%  
424. PROP. INV. @ PIPE #426 & #427 = 698.64  
426. 5 LF PROP. 8" DIP @ 1.00%  
427. 43 LF PROP. 8" DIP @ 1.00%  
428. EXIST. DOWNSPOUT, CONNECT TO PROP. PIPE #429  
INV (8" E @ BLDG.) = 698.22  
429. 14 LF PROP. 8" DIP @ 1.00%  
430. PROP. INV @ PIPE #427 & #431 = 698.22  
431. 37 LF PROP. 8" DIP @ 1.00%  
432. PROP. INV @ PIPE #439 = 697.85  
433. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #438 & #439  
INV (8" S) = 698.93  
434. 55 LF PROP. 8" DIP @ 1.00%  
435. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #434 AND #436  
INV (#434 8" N) = 698.38  
INV (#436 8" S) = 698.38  
436. 41 LF PROP. 8" DIP @ 1.00%  
437. PROP. DOWNSPOUT, CONNECT TO PROP. PIPE #436 AND #438  
INV (#436 8" N) = 697.96  
INV (#438 12" E) = 697.96  
438. 11 LF PROP. 12" DIP STORM SEWER @ 1.00%  
439. 43 LF PROP. 12" DIP STORM SEWER @ 1.40%  
440. PROP. 24" CATCH BASIN  
RIM = 700.50  
INV (15" N) = 697.36  
INV (12" W) = 697.36  
441. 6 LF PROP. 15" RCP @ 0.60%  
442. PROP. 24" CATCH BASIN  
RIM = 700.50  
INV (15" N) = 697.32  
INV (15" S) = 697.32  
443. REMAINING 207 LF EXIST. 15" RCP (#251) @ 0.60%  
444. MODIFIED EXIST. 48" CATCH BASIN (#252)  
RIM = 700.50  
INV (18" N) = 696.08  
INV (15" S) = 696.08  
445. 10 LF PROP. 18" RCP @ 0.54%  
446. PROP. 48" CATCH BASIN  
RIM = 700.50  
INV (18" N) = 696.03  
INV (18" S) = 696.03  
447. REMAINING 82 LF EXIST. 18" RCP (#253) @ 0.54%  
460. 60 LF PROP. 8" DIP @ 2.00%  
461. 64 LF PROP. 8" DIP @ 2.00%  
462. 20 LF PROP. 8" DIP @ 1.00%

G&C #19-005

|              |                  |
|--------------|------------------|
| SHEET TITLE: | DRAINAGE EXHIBIT |
| DRAWN BY:    | DMC              |
| CHECKED BY:  | FDC              |

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ENGINEERS, INC.  
PROFESSIONAL DESIGN FIRM  
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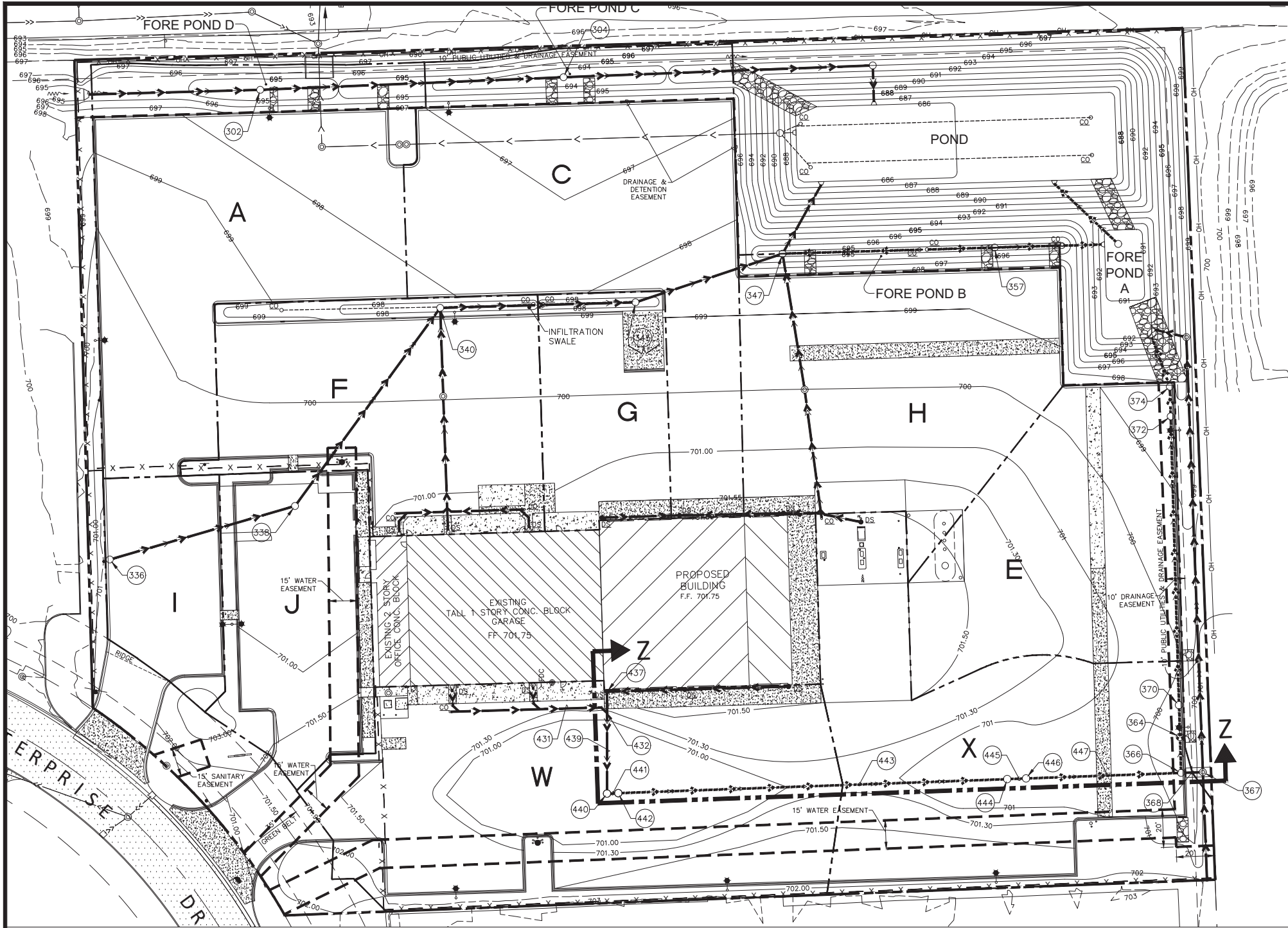
FACILITY EXPANSION  
1290 enterprise dr, romeoville, IL 60446

|              |                |
|--------------|----------------|
| DESCRIPTION: | VILLAGE REVIEW |
| DATE:        | 05-10-19       |

PROJECT NO: 15.120  
SHEET NO:

EXH 2A





EXISTING PIPE TO REMIAN  
HYDRAULIC GRADE LINE CALCULATIONS

15" SURCHARGED 1.13% X 213 = 2.41' TOP OF 15" AT (444) = 696.08 + 1.25 = 697.33  
HYDRAULIC GRADE AT (440) = 697.33 + 2.41 = 699.74

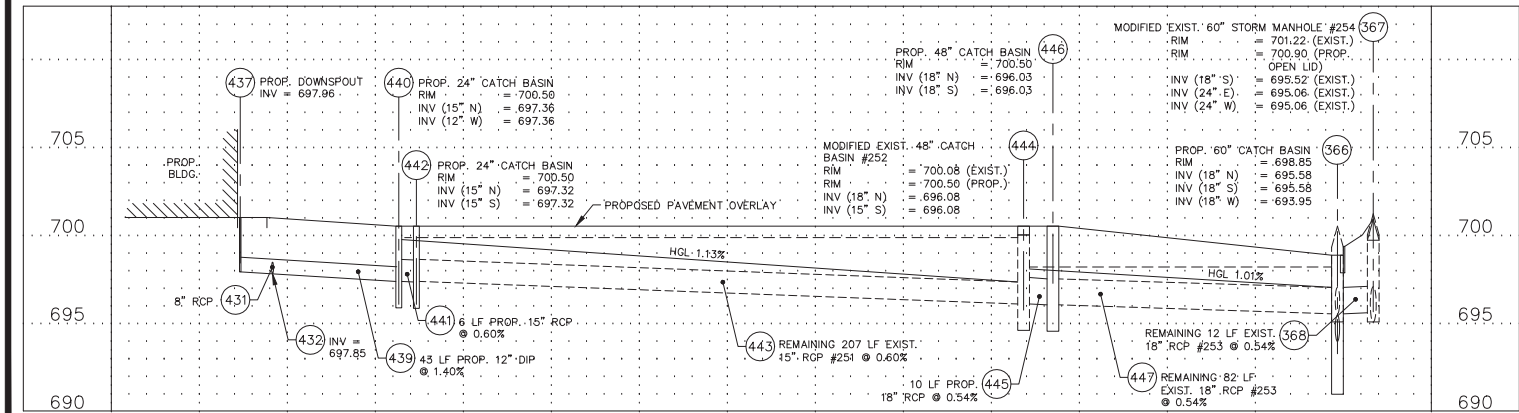
18" SURCHARGED 1.01% X 104 = 1.05' TOP OF 18" AT (366) = 695.52 + 1.50 = 607.02  
HYDRAULIC GRADE AT (444) = 697.02 + 1.05 = 698.07

TRIBUTARY AREAS TO INLETS

|      | TOTAL | PERVIOUS | IMPERVIOUS |
|------|-------|----------|------------|
|      | S.F.  | S.F.     | S.F.       |
| A    | 22016 | 3394     | 18622      |
| C    | 12854 | 2894     | 9960       |
| E    | 32800 | 0        | 32800      |
| F    | 18967 | 2512     | 16455      |
| G    | 11716 | 960      | 10756      |
| H    | 12072 | 1038     | 11034      |
| I    | 6600  | 401      | 6199       |
| J    | 12078 | 1881     | 10197      |
| W    | 29506 | 2913     | 26593      |
| X    | 25266 | 3436     | 21830      |
| EAST | 28663 | 9745     | 18918      |

INLET CALCULATIONS

~SCALE: 1" = 30'~



SECTION Z-Z

INLET CAPACITY CALCULATIONS  
AT VARIOUS DEPTHS

| MARK | GRATE          | LOCATION | T <sub>c</sub> (MIN) | TRIBUTARY AREAS |               | INLET DESIGN (Q = CIA) |            |               |                | DESIGN REQUIREMENTS PER INLET |                        |               | SINGLE INLET CAPACITY (CFS) AT VARIOUS DEPTHS |     |     |
|------|----------------|----------|----------------------|-----------------|---------------|------------------------|------------|---------------|----------------|-------------------------------|------------------------|---------------|-----------------------------------------------|-----|-----|
|      |                |          |                      | PERV. (AC.)     | IMPERV. (AC.) | C <sub>c</sub>         | AREA (AC.) | 10 YR (IN/HR) | 100 YR (IN/HR) | Q <sub>10</sub> (CFS)         | Q <sub>100</sub> (CFS) |               | 3"                                            | 6"  | 9"  |
| A    | 302            | R4353    | WEST DITCH           | 10              | 0.0779        | 0.4275                 | 0.82       | 0.5054        | 6.18           | 10.15                         | 2.55                   | 4.16          | 2.8                                           | 6.1 | 7.5 |
| C    | 304            | R4353    | WEST DITCH           | 10              | 0.0664        | 0.2287                 | 0.78       | 0.2951        | 6.18           | 10.15                         | 1.42                   | 2.32          | 2.8                                           | 6.1 | 7.5 |
| E    | 372 & 374      | 2-R1713  | NORTH PL             | 15              | 0             | 0.7530                 | 0.90       | 0.7530        | 5.28           | 9.00                          | 3.58/2 = 1.79          | 6.10/2 = 3.05 | 2.5                                           | 4.4 | 5.4 |
| F    | 340            | R4340B   | INFILTRATION TRENCH  | 10              | 0.0577        | 0.3778                 | 0.83       | 0.4354        | 6.18           | 10.15                         | 2.23                   | 3.66          | 2.0                                           | 3.7 | 4.6 |
| G    | 345            | R4340B   | INFILTRATION TRENCH  | 10              | 0.0220        | 0.2469                 | 0.85       | 0.2690        | 6.18           | 10.15                         | 1.42                   | 2.33          | 2.0                                           | 3.7 | 4.6 |
| H    | 347 & 357      | R4340B   | INFILTRATION TRENCH  | 10              | 0.0238        | 0.2533                 | 0.85       | 0.2771        | 6.18           | 10.15                         | 1.46/2 = 0.73          | 2.40/2 = 1.20 | 2.0                                           | 3.7 | 4.6 |
| I    | 336            | R1713    | SOUTH PL             | 10              | 0.0092        | 0.1423                 | 0.87       | 0.1515        | 6.18           | 10.15                         | 0.81                   | 1.33          | 2.5                                           | 4.4 | 5.4 |
| J    | 338            | R1713    | EMPLOYEE PARKING     | 10              | 0.0432        | 0.2341                 | 0.81       | 0.2773        | 6.18           | 10.15                         | 1.40                   | 2.29          | 2.5                                           | 4.4 | 5.4 |
| W    | 440 & 442      | 2-R1713  | SOUTHEAST PARKING    | 15              | 0.0669        | 0.6105                 | 0.85       | 0.6774        | 5.28           | 9.00                          | 3.02/2 = 1.51          | 5.14/2 = 2.57 | 2.5                                           | 4.4 | 5.4 |
| X    | 444 & 446      | 2-R1713  | NORTHEAST PARKING    | 15              | 0.0789        | 0.5011                 | 0.83       | 0.5800        | 5.28           | 9.00                          | 2.53/2 = 1.27          | 4.31/2 = 2.16 | 2.5                                           | 4.4 | 5.4 |
| EAST | 364, 366 & 370 | 3-R1713  | NORTH PL             | 33              | 0.2237        | 0.4343                 | 0.71       | 0.6580        | 3.49           | 5.94                          | 1.64/2 = 0.82          | 2.79/2 = 1.40 | 2.5                                           | 4.4 | 5.4 |



FACILITY EXPANSION

1290 enterprise dr, romeoville, IL 60446

PROJECT NO: 15.120  
SHEET NO:

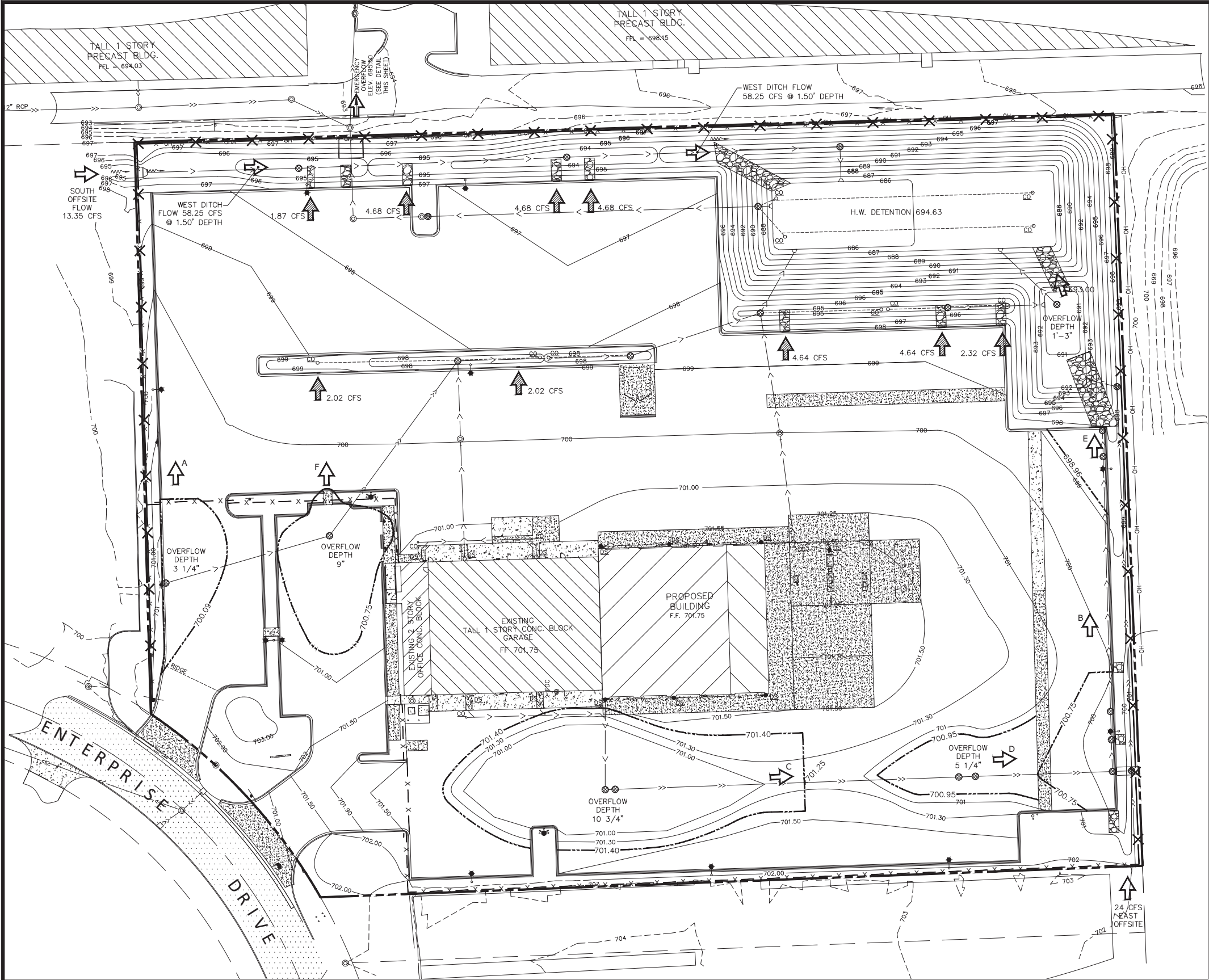
EXH 2B

SHEET TITLE: INLET CALCULATIONS

DRAWN BY: DMC

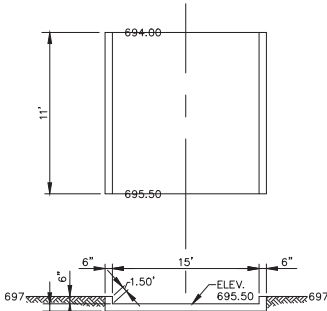
CHECKED BY: FDC

G&C #19-005



INUNDATION and SURFACE FLOW CALCULATIONS

~SCALE: 1" = 30'~



CONCRETE EMERGENCY OVERFLOW WEIR

695.50 = 0  
696.00 = 15.92 CFS  
696.50 = 45.00 CFS  
697.00 = 82.67 CFS

- SEE TABLE
- CURB BREAK 6" FLOW

SURFACE OVERFLOW CURB TYPE GUTTER EQUATION

|   | WATER ELEV. | Q PROVIDED (CFS) | Q REQUIRED (CFS) | MAX. DEPTH OVER OR PAVEMENT |
|---|-------------|------------------|------------------|-----------------------------|
| A | 700.09      | 1.40             | 1.37             | 3 1/2"                      |
| B | 700.75      | 47.15            | 35.58            | 9"                          |

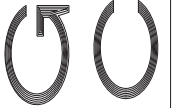
SURFACE RIDGE OVERFLOW

|   | WATER ELEV. | Q PROVIDED (CFS) | Q REQUIRED (CFS) | MAX. DEPTH OVER OR PAVEMENT |
|---|-------------|------------------|------------------|-----------------------------|
| C | 701.40      | 7.83             | 7.47             | 10 3/4"                     |
| D | 700.90      | 14.90            | 11.58            | 5 1/4"                      |

CURB BREAK FLOW

|   | WATER ELEV. | Q PROVIDED (CFS) | Q REQUIRED (CFS) | MAX. DEPTH OVER OR PAVEMENT |
|---|-------------|------------------|------------------|-----------------------------|
| E | 698.90      | 41.84            | 35.58            | 10 3/4"                     |
| F | 700.75      | 4.68             | 3.81             | 9"                          |

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FACILITY EXPANSION  
1290 enterprise dr, romeoville, IL 60446

PROJECT NO: 15.120  
SHEET NO:

EXH 3

SHEET TITLE: INUNDATION and SURFACE FLOW CALCULATIONS  
DRAWN BY: DMC  
CHECKED BY: FDC

G&C #19-005

DESCRIPTION: VILLAGE REVIEW  
DATE: 05-10-19  
VILLAGE REVIEW  
DATE: 07-03-19

M:\data\PROJ\19-005\dwg\19-005\_EXHIBIT-3\_INUNDATION\_EXHIBIT.dwg, 7/3/2019 12:11:10 PM, 130