

VILLAGE OF BRADLEY

**RESOLUTION NO. R-11-15-1**

**A RESOLUTION REQUESTING A PERMIT  
FROM THE ILLINOIS DEPARTMENT OF TRANSPORTATION  
TO ALLOW WORK RELATED TO  
A COMMERCIAL ENTRANCE ONTO IL-50**

ADOPTED BY THE  
BOARD OF TRUSTEES  
VILLAGE OF BRADLEY

This \_\_\_\_ day of \_\_\_\_\_, 2015

CERTIFICATE:

\_\_\_\_\_  
Michael J. LaGesse, Village Clerk

## RESOLUTION NO. R-11-15-1

### **A RESOLUTION REQUESTING A PERMIT FROM THE ILLINOIS DEPARTMENT OF TRANSPORTATION TO ALLOW WORK RELATED TO A COMMERCIAL ENTRANCE ONTO IL-50**

**WHEREAS**, the Village of Bradley of Kankakee County, Illinois, wishes to allow a commercial entrance onto IL-50 which by law comes under the jurisdiction and control of the Department of Transportation of the state of Illinois; and

**WHEREAS**, a permit from said department is required before said work can be legally undertaken by said village of Bradley; and

**NOW THEREFORE, BE IT RESOLVED** by the President and the Board of Trustees of the Village of Bradley as follows:

**Section 1. Recitals Incorporated.** The above recitals are incorporated herein as though fully set forth;

**Section 2. Request for Permit.** That we do hereby request from the Department of Transportation, state of Illinois, a permit authorizing the village of Bradley to proceed with the work herein described and as shown on enclosed detailed plans;

**Section 3. Guarantee/Hold Harmless.** Upon completion of the commercial entrance by the developer and acceptance by the village, the village guarantees that all work has been performed in accordance with the conditions of the permit to be granted by the Department of Transportation. Further, the village will hold the state of Illinois harmless for any damages that may occur to persons or property during such work.

**Section 4. Bond/Insurance.** The village will require the developer to obtain a bond and a comprehensive general liability insurance policy in acceptable amounts and will require the developer to add the State of Illinois as an additional insured on both policies.

**Section 5. Performance of Work.** That we hereby state that the proposed work is not to be performed by the employees of the village of Bradley.

**Section 6. Authorization to Sign.** That the proper officers of the village of Bradley are hereby instructed and authorized to sign said permit on behalf of the village of Bradley.

**Section 7. Severability and Repeal of Inconsistent Resolutions.** If any section, paragraph, clause or provision of this Resolution shall be held invalid, the invalidity thereof shall not affect any of the other provisions of this Resolution. All resolutions, ordinances and motions in conflict herewith are hereby repealed to the extent of such conflict.

**Section 8. Effective Date.** This Resolution shall take effect from and after its adoption and approval.

TRUSTEES:

Jerry Balthazor:	AYE - ____	NAY - ____	ABSENT - ____
Robert Redmond:	AYE - ____	NAY - ____	ABSENT - ____
Lori Gadbois:	AYE - ____	NAY - ____	ABSENT - ____
Eric Cyr:	AYE - ____	NAY - ____	ABSENT - ____
Melissa Carrico:	AYE - ____	NAY - ____	ABSENT - ____
Michael Watson:	AYE - ____	NAY - ____	ABSENT - ____
Bruce Adams:	AYE - ____	NAY - ____	ABSENT - ____
TOTALS:	AYE - ____	NAY - ____	ABSENT - ____

APPROVED this \_\_\_\_ day of \_\_\_\_\_, 2015

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Bruce Adams, President of the Board of  
Trustees of the Village of Bradley

ATTEST:

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Michael J. Lagesse, Village Clerk



# IMPROVEMENT PLANS FOR GENERAL DEVELOPMENT CORPORATION OF KANKAKEE STORAGE FACILITY SITE PLAN

## PROJECT INFORMATION

**OWNER/DEVELOPER:**  
GENERAL DEVELOPMENT CORPORATION OF KANKAKEE  
3420 WOODHAVEN DRIVE  
BOURBONNAIS, IL 60914  
P. 815.933.7328  
F. 815.935.6676  
EMAIL: STEVENLYSMITH@COMCAST.NET

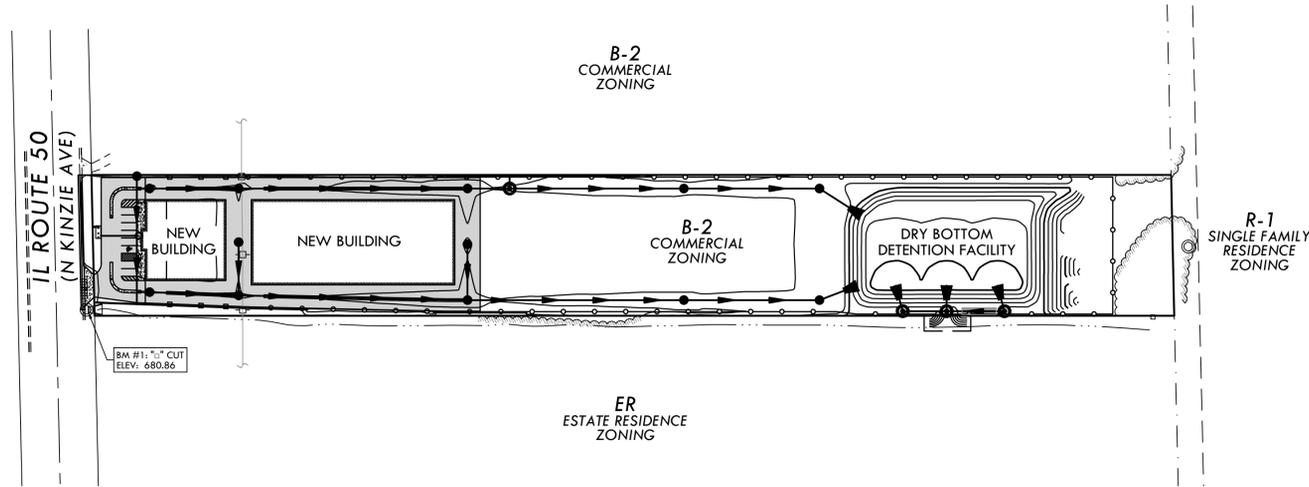
**PROJECT ADDRESS:**  
1806 NORTH ROUTE 50  
BOURBONNAIS, IL 60914

### DEVELOPMENT NOTES:

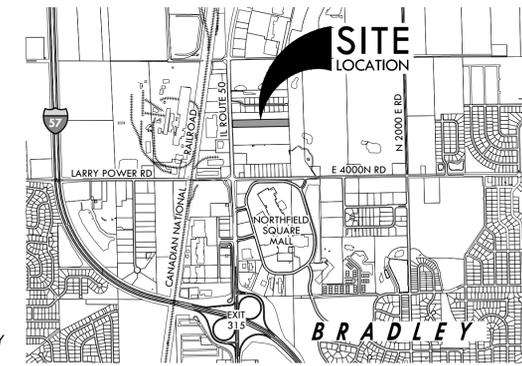
PIN: 17-09-09-303-012  
MUNICIPALITY: BRADLEY  
TOWNSHIP: BOURBONNAIS  
COUNTY: KANKAKEE  
TOTAL SITE AREA: 4.83 ACRES  
ZONING: B-2 - COMMERCIAL  
BUILDING SETBACKS ARE AS FOLLOWS:  
FRONT YARD SETBACK = 50 FEET  
NORTH SIDE YARD SETBACK = 0 FEET  
SOUTH SIDE YARD SETBACK = 5 FEET  
REAR YARD SETBACK = 5 FEET  
PARKING TABULATION:  
ADA PARKING = 1 SPACES  
STANDARD PARKING = 8 SPACES

**SCOPE OF WORK:**  
CONSTRUCTION OF SITE PLAN UNDER THIS SUBMITTAL

## SITE



## VICINITY MAP



## DRAINAGE CERTIFICATE

STATE OF ILLINOIS }  
COUNTY OF KANKAKEE } SS

TO THE BEST OF OUR KNOWLEDGE AND BELIEF THE DRAINAGE OF SURFACE WATERS WILL NOT BE CHANGED BY THE CONSTRUCTION OF SUCH SUBDIVISION OR ANY PART THEREOF OR THAT IF SUCH SURFACE WATER DRAINAGE WILL CHANGE, ADEQUATE PROVISION HAS BEEN MADE FOR THE COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO PUBLIC AREAS OR DRAINS WHICH THE SUBDIVIDER HAS THE RIGHT TO USE, AND THAT SURFACE WATERS WILL NOT BE DEPOSITED ON THE PROPERTY ADJOINING LAND OWNERS IN SUCH CONCENTRATIONS AS MAY CAUSE DAMAGE TO THE ADJOINING PROPERTY BECAUSE OF THE CONSTRUCTION ON THE SUBDIVISION.

DATED AT BRADLEY, ILLINOIS THIS \_\_\_\_ DAY OF \_\_\_\_\_ A.D. 2015

DESIGN ENGINEER

OWNER

## UTILITY COMPANIES SERVING SITE:

### CALL **JULIE** BEFORE YOU DIG:

CALL 811 OR 800.892.0123 OR GO TO [illinois1call.com](http://illinois1call.com)

**WATER:**  
AQUA ILLINOIS, INC.  
1000 SOUTH SCHUYLER AVENUE  
KANKAKEE, IL 60901  
P. 815.935.8800

**NATURAL GAS:**  
NICOR GAS  
1844 FERRY ROAD  
NAPERVILLE, IL 60563  
P. 888.642.6748 OR 800.730.6114  
EMAIL: BUILDER@NICOR.COM

**ELECTRIC:**  
COM ED  
25000 GOVERNORS HIGHWAY  
UNIVERSITY PARK, IL 60466  
P. 708.235.2350

**TELEPHONE:**  
AT&T  
65 WEST WEBSTER - FLOOR 4E  
JOLIET, IL 60431  
P. 815.727.8279

**CABLE TELEVISION:**  
COMCAST  
1770 HOFFMAN WAY  
SOUTH HOLLAND, IL 60473  
P. 708.444.8832

**VILLAGE OF BRADLEY:**  
PUBLIC WORKS DEPARTMENT  
210 E. BROADWAY  
BRADLEY, IL 60915  
P. 815.933.3715  
F. 815.933.4650  
HOURS: MON-FRI, 7 a.m. - 3:30 p.m.

**BUILDING STANDARDS DEPARTMENT**  
111 N. MICHIGAN AVE.  
BRADLEY, IL 60915  
P. 815.933.5008  
F. 815.933.5068  
HOURS: MON-FRI, 8 a.m. - 4:30 p.m.

**DEPARTMENT OF TRANSPORTATION:**  
IDOT  
700 EAST NORRIS DRIVE  
OTTAWA, IL 61350  
P. 815.434.6131

## BENCHMARK SUMMARY

**SOURCE BENCHMARK:**  
KANKAKEE COUNTY BM #114: BRASS DISK LOCATED AT THE SOUTHWEST CORNER OF IL ROUTE 50 & LARRY POWER ROAD IN THE ENTRANCE OF BELSON STEEL CENTER SCRAP, INC.  
ELEVATION: 682.28 NAVD 88

**SITE BENCHMARK:**  
BM #1: 1" CUT ON MANHOLE STRUCTURE SLAB TOP LOCATED AT THE SOUTHWEST CORNER OF PROPERTY.  
ELEVATION: 680.86 NAVD 88

## SYMBOLS & LEGEND

	STORM INLET
	CURB INLET
	FLARED END SECTION
	STORM/SANITARY MANHOLE
	WATER METER
	POWER POLE
	LIGHT POLE
	GAS METER
	BOLLARD
	POST
	SHADE/DECIDUOUS TREE
	TREE LINE
	EDGE OF GRAVEL
	EDGE OF PAVEMENT/SIDEWALK
	CURB AND GUTTER
	DITCH FLOW LINE
	ELECTRIC LINE, OVERHEAD
	STORM SEWER/CULVERT PIPE
	SANITARY SEWER PIPE
	CHAIN LINK FENCE
	GRAVEL PAVEMENT
	CONCRETE PAVEMENT/SIDEWALK

## DRAWING INDEX

C1.0	COVER PAGE
C1.1	STANDARDS & SPECIFICATIONS
C2.0	BOUNDARY, EXISTING TOPOGRAPHY & REMOVALS PLAN
C3.0	SITE SCHEDULES & LEGEND
C3.1	GEOMETRIC PLAN & SITE ENTRANCE PROFILE
C3.2	GRADING PLAN & SANITARY SEWER PROFILE
C3.3	GRADING PLAN
C3.4	PROFILES - PRECAST MODULAR BLOCK WALLS
C3.5 - C3.6	CROSS SECTIONS - 100 YEAR OVERFLOW
C4.0 - C4.3	EROSION CONTROL PLAN
C5.0 - C5.5	SITE DETAILS
C5.6 - C5.7	SITE DETAILS - PRECAST MODULAR BLOCK WALLS
C5.8 - C5.9	IDOT DETAILS

**PIGGUSH ENGINEERING, INC**

586 WILLIAM LATHAM DRIVE  
SUITE 8  
BOURBONNAIS, ILLINOIS 60914  
P. 815.614.3447  
F. 815.614.3735  
IL DESIGN FIRM LICENSE No. 184,006779

**PIGGUSH ENGINEERING, INC**  
www.piggusheng.com

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REV	ISSUED	DESCRIPTION
1	07.23.15	PER CLIENT REVIEW
2	07.28.15	APPENDUM 2
3	08.25.15	PER VILLAGE REVIEW
4	09.21.15	PER IDOT REVIEW

**STORAGE FACILITY SITE PLAN**  
1806 NORTH ROUTE 50  
BOURBONNAIS, IL 60914

**GENERAL DEVELOPMENT CORPORATION OF KANKAKEE**  
3420 WOODHAVEN DRIVE  
BOURBONNAIS, IL 60914

PROJECT: 15023.0301  
ISSUED: 07.15.15  
DRAWN BY: MRG  
CHECKED BY: NAP

COVER PAGE

**C1.0**

## SITE CONSTRUCTION NOTES

- I. ALL SITE WORK, SITE GRADING, EXCAVATION, DEMOLITION, EMBANKMENT CONSTRUCTION AND THAT IS DISPLAYED, DEPICTED OR DESCRIBED IN THE FOLLOWING PLANS AND BID DOCUMENTS SHALL BE IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION, INCLUDING ALL PUBLISHED ADDENDA, EXCEPT AS MODIFIED BY THE ACCOMPANYING SPECIFICATIONS AND/OR SPECIAL PROVISIONS AS WELL AS ANY NOTES SHOWN IN THE PLANS.
- II. ANY AND ALL WORK THAT IS DISPLAYED, DEPICTED OR DESCRIBED IN THE FOLLOWING PLANS AND BID DOCUMENTS SHALL BE PERFORMED IN ACCORDANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS AND THE **VILLAGE OF BRADLEY** SAFETY REGULATIONS. ANY NONCONFORMANCE WITH THESE SAFETY REGULATIONS WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR OF RECORD AND THEIR SUBCONTRACTOR(S), AGENTS, AND/OR VENDORS.
- III. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR OF RECORD, THEIR AGENTS, SUBCONTRACTORS, VENDORS AND THE LIKE, TO COMPLY WITH ALL PERTINENT FEDERAL AND STATE SAFETY LAWS AND REGULATIONS AS WELL AS PROVIDE A SAFE WORKING ENVIRONMENT IN ORDER TO MEET COMPLIANCE WITH THESE REGULATORY AGENCIES WHICH SHALL INCLUDE BUT ARE NOT LIMITED TO: THE FEDERAL CONSTRUCTION SAFETY STANDARDS AS WELL AS THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, LATEST EDITIONS. THE CONTRACTOR OF RECORD AND THEIR AGENTS AND SUBCONTRACTORS SHALL BE THE RESPONSIBLE PARTIES FOR COMPLIANCE WITH THESE REGULATIONS AS WELL AS THE OVERSEEING THEIR EMPLOYEES COMPLIANCE.
- IV. THE CONTRACTOR OF RECORD, THEIR AGENTS, VENDORS AND THE LIKE, SHALL HOLD HARMLESS PIGGUSH ENGINEERING, INC., TO BE RECOGNIZED FROM THIS POINT FORWARD AS "THE ENGINEER" WHICH SHALL INCLUDE HIS EMPLOYEES AND/OR AGENTS WHILE ACTING WITHIN THE SCOPE OF WORK FROM AND AGAINST ANY AND ALL LIABILITY, CLAIMS, DAMAGES, AND COSTS OF DEFENSE ARISING FROM ANY CONTRACTOR, SUBCONTRACTOR AND/OR AGENT'S PERFORMANCE OF THE WORK DESCRIBED HEREIN, BUT SHALL NOT INCLUDE THE SOLE NEGLIGENCE OF THE OWNER, HIS AGENTS, THE ENGINEER, HIS EMPLOYEES AND AGENTS BY USING THESE PLANS FOR THEIR WORK.
- V. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL UTILITY COMPANIES FOR FIELD LOCATION OF THEIR FACILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES. ALL UNDERGROUND UTILITIES HAVE BEEN DEPICTED FROM BEST AVAILABLE INFORMATION AND ALL OF THEIR RESPECTIVE LOCATIONS SHALL BE CONSIDERED FOR REFERENCE ONLY. ON-SITE VERIFICATION OF ALL EXISTING UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THEIR EMPLOYEES, AGENTS, AND/OR SUBCONTRACTORS. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE LOCATION, MAINTENANCE AND PRESERVATION OF ANY EXISTING FACILITIES THROUGHOUT THE COURSE OF THE CONSTRUCTION PROJECT. ALL UNDERGROUND UTILITIES HAVE BEEN SHOWN IN THE PLANS FROM THE BEST AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL EXISTING UNDERGROUND PUBLIC AND/OR PRIVATE UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF THE IMPROVEMENTS.
- VI. NOTHING THAT IS CONTAINED IN THESE PLANS AND BID DOCUMENTS SHALL BE INTERPRETED AS ANY FORM OF A CONTRACT BETWEEN THE CONTRACTOR OF RECORD OR SUBCONTRACTOR THEREO AND THE ENGINEER.
- VII. THE ENGINEER WILL NOT BE RESPONSIBLE FOR DETERMINING ANY SORT OF MEANS, TECHNIQUES OR METHODS FOR THE PROPOSED WORK CONTAINED WITHIN THESE PLANS AND CONSTRUCTION DOCUMENTS.
- VIII. ALL WATER AND SEWER MAIN WORK THAT IS DISPLAYED, DEPICTED OR DESCRIBED IN THE FOLLOWING PLANS AND BID DOCUMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", LATEST EDITION, WITH THE VILLAGE OF BRADLEY PUBLIC WORKS DEPARTMENT FOR ALL APPLICABLE SANITARY SEWER CONSTRUCTION AND/OR IN ACCORDANCE WITH AQUA ILLINOIS, INC. FOR ALL APPLICABLE WATER AND SEWER MAIN CONSTRUCTION.
- IX. ALL COMPACTED FILLS WHICH SHALL INCLUDE BUT ARE NOT LIMITED TO, BUILDING PAD FILL, BACKFILL UNDER PROPOSED PAVEMENT AND/OR HARDCAPE AREAS, UTILITY TRENCHING FOR STORM, SANITARY, WATER MAIN AND ALL OTHER POTENTIAL SITE UTILITIES, SHALL BE COMPACTED TO A MINIMUM OF NINETY-FIVE PERCENT DENSITY AS DEFINED BY THE STANDARD PROCTOR TEST ASHTO T-99, METHOD C (ASTM D-4958). ALL COMPACTED FILLS THAT DO NOT INCLUDE CA-17 TRENCH BACKFILL SHALL BE MECHANICALLY COMPACTED TO THE SATISFACTION OF THE ENGINEER AND SHALL PROVIDE SUPPORTING DOCUMENTATION TO PROVE COMPACTION HAS BEEN ACHIEVED AT THE SOLE EXPENSE OF THE CONTRACTOR.
- X. ANY AND ALL CHANGES IN THE FIELD THAT DEViate FROM THE APPROVED FOR CONSTRUCTION SITE ENGINEERING DRAWINGS AS DESCRIBED IN THE FOLLOWING NOTES THAT ARE ENCOUNTERED IN THE FIELD SHALL ONLY BE PERFORMED BY THE CONTRACTOR AT THE DISCRETION OF THE **VILLAGE OF BRADLEY, DEPARTMENT OF BUILDING STANDARDS**, AND THE ENGINEER OF RECORD IN WRITING.
- XI. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE **VILLAGE OF BRADLEY, DEPARTMENT OF BUILDING STANDARDS**, AND THE ENGINEER OF RECORD OF ANY DISCREPANCIES OR DEFICIENCIES THAT ARE ENCOUNTERED IN THE FIELD WORK/REPAIRS ON THESE ITEMS SHALL BE PERFORMED UNTIL VISUAL INSPECTION OF THE BROKEN TILE HAS BEEN PERFORMED BY THE ENGINEER UNLESS NOTIFIED OTHERWISE IN WRITING. UNLESS DIRECTED OTHERWISE BY THE ENGINEER IN WRITING, THE TILE SHALL BE REPAIRED AND RETURNED TO ITS ORIGINAL INTEGRITY, ROUTE, AND FUNCTION.
- XII. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE ALL OF THE CONSTRUCTION DOCUMENTS, ADDITIONAL INFORMATION PROVIDED AS WELL AS THE EXISTING SITE CONDITIONS PRIOR TO THE BID OPENING AND SHALL MAKE THE ENGINEER AWARE OF ANY DISCREPANCIES DURING THE BIDDING PROCESS. ALL ITEMS THAT ARE SPECIFICALLY SHOWN ON THE PLANS OR IN THE SUMMARY OF QUANTITIES BUT CAN REASONABLY BE INTERPRETED TO BE INCLUDED IN THE SCOPE OF THE WORK DEPICTED OR SHOWN HEREIN THESE PLANS SHALL BE CONSIDERED INCLUDED IN THE SCOPE OF THE WORK AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- XIII. ALL NECESSARY TRAFFIC CONTROL WHICH SHALL INCLUDE BUT MAY NOT BE LIMITED TO, FLAGGERS, SIGNAGE, BARRIERS, CONES, BARRICADES, CONCRETE BARRIERS, ETC. SHALL BE USED WHEN NECESSARY. THIS SHALL BE IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, INCLUDING ALL ADDENDA. THE COST OF TRAFFIC CONTROL THAT IS DEPICTED IN THESE PLANS OR BY LOCAL, STATE AND/OR FEDERAL SAFETY REGULATIONS, SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT, UNLESS SHOWN OTHERWISE IN THE CONSTRUCTION DOCUMENTS.
- XIV. PER SECTION 208 OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, CA-07 TRENCH BACKFILL SHALL UTILIZED AS BACKFILL IN ALL AREAS WHERE TRENCHING IS REQUIRED TO BE DEEPER THAN TWO FEET OF PAVEMENT, SIDEWALK, CURB AND GUTTER, AND/OR ANY OTHER HARDCAPE ITEMS NOT SPECIFIED ABOVE, ETC.
- XV. ALL SURVEYED EXISTING ELEVATIONS AS WELL AS PROPOSED PLAN ELEVATIONS ARE BASED ON USGS DATUM WHICH IS SPECIFICALLY ON NAVD 1988 VERTICAL DATUM AND NAD 1983 HORIZONTAL DATUM UNLESS OTHERWISE NOTED IN THE PLANS.
- XVI. ALL PROPOSED FRAMES, GRATES, VAULTS AND SUPERFICIAL UTILITY APPURTENANCES SHALL BE MANUFACTURED BY EAST JORDAN OR APPROVED EQUAL OR HARDCAPE AREAS. THE NUMBER OF RESPECTIVE ITEMS AS SHOWN IN THE PLANS OR APPROVED EQUAL AND BE IN ACCORDANCE WITH SECTION 604 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION AND ANY ADDENDA THERETO. ANY SUBSTITUTION SHALL BE REQUESTED IN WRITING BY THE CONTRACTOR TO THE ENGINEER PRIOR TO THE BID OPENING, ORDERING AND/OR INSTALLATION.
- XVII. BY EXECUTING THE WORK REQUIRED TO CONSTRUCT TO PROPOSED IMPROVEMENTS ENCLOSED IN THE FOLLOWING PLANS, THE CONTRACTOR AGREES TO THE INDEMNIFICATION AND INSURANCE REQUIREMENTS DESIGNATED IN ANY OF THE ADDITIONAL BIDDING, SPECIFICATION, SPECIAL PROVISIONS, AND/OR ADDENDA DOCUMENTS TO THE FULLEST EXTENT PERMITTED BY LAW.
- XVIII. TO THE FULLEST EXTENT PERMITTED BY LAW, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL INJURIES TO PERSON OR DAMAGES TO PROPERTY DUE TO THE ACTIVITIES OF THE CONTRACTOR, SUBCONTRACTORS, SUPPLIERS, AGENTS, OR EMPLOYEES ARISING OUT OF OR RESULTING FROM PERFORMANCE OF THE CONTRACT, OR ANY ACTIVITY CONNECTION WITH THE CONTRACT. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE VILLAGE OF BRADLEY AND PIGGUSH ENGINEERING, INC. AND THEIR OFFICERS, EMPLOYEES, AND AGENTS FROM ANY AND ALL CLAIMS, LAWSUITS, ACTIONS, COSTS, AND FEES (INCLUDING REASONABLE ATTORNEY FEES AND EXPENSES) OF EVERY NATURE OR DESCRIPTION, ARISING FROM, GROWING OUT OF, OR CONNECTED WITH THE WORK, OR ON ACCOUNT OF OR IN CONSEQUENCE OF ANY NEGLIGENCE IN SAFEGUARDING THE WORK OR ON ACCOUNT OF OR IN CONSEQUENCE OF USING UNACCEPTABLE MATERIALS IN CONSTRUCTING THE WORK OR BECAUSE OF ANY ACT OR OMISSION, NEGLIGENCE, OR MISCONDUCT OF THE CONTRACTOR, ITS OFFICERS, EMPLOYEES, AGENTS, ITS SUBCONTRACTORS, ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY THEM, AND/OR ANYONE FOR WHOSE ACTS THEY MAY BE LIABLE OR BECAUSE OF ANY CLAIMS OR AMOUNT RECOVERED BY REASON OF ANY INFRINGEMENT OF ANY PATENT, TRADEMARK, OR COPYRIGHT OR BY REASON OF THE VIOLATION OF ANY LAW, ORDINANCE, ORDER OR DECREE. THIS OBLIGATION IS BINDING ON THE CONTRACTOR WITHOUT REGARD TO WHETHER OR NOT SUCH CLAIM, DAMAGE, LOSS, OR EXPENSE IS CAUSED IN PART BY THE ACT, OMISSION, OR NEGLIGENCE OF PIGGUSH ENGINEERING, INC. OR ITS OFFICERS, EMPLOYEES, OR AGENTS.
- XIX. IN THE EVENT ANY SUCH CLAIM, LAWSUIT, OR ACTION IS ASSERTED, ANY SUCH MONEY DUE TO THE CONTRACTOR UNDER AND BY VIRTUE OF THE CONTRACT AS SHALL BE DEEMED NECESSARY BY PIGGUSH ENGINEERING, INC. AND/OR THE CLIENT FOR THE PAYMENT THEREOF, MAY BE RETAINED BY PIGGUSH ENGINEERING, INC. AND/OR THE CLIENT FOR SAID PURPOSE, OR IN CASE NO MONEY OR INSUFFICIENT MONEY IS DUE TO SATISFY SUCH CLAIM, LAWSUIT, OR ACTION, THE CONTRACTOR'S SURETY SHALL REMAIN LIABLE FOR ANY PAYMENT THEREFOR UNTIL ANY SUCH LAWSUIT, ACTION, OR CLAIM HAS BEEN SETTLED OR HAS BEEN FULLY JUDICIALLY DETERMINED AND SATISFIED.
- XX. NO INSPECTION BY PIGGUSH ENGINEERING, INC. ITS EMPLOYEES OR AGENTS SHALL BE DEEMED A WAIVER BY PIGGUSH ENGINEERING, INC. OF FULL COMPLIANCE WITH THE REQUIREMENT OF THE CONTRACT. THIS INDEMNIFICATION SHALL NOT BE LIMITED BY THE REQUIRED MINIMUM INSURANCE COVERAGE PROVIDED IN THE CONTRACT.
- XXI. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING LIABILITY INSURANCE TO PROTECT THE **VILLAGE OF BRADLEY**, THE DEVELOPER, PIGGUSH ENGINEERING, INC. AND THE DESIGN ENGINEER FROM ALL SUITS AND CLAIMS MADE AGAINST THIS PROJECT, ITS DESIGN OR IMPLEMENTATION. EACH OF THE ABOVE SHALL BE NAMED IN THE CERTIFICATE. THE MINIMUM INSURANCE REQUIREMENTS AS THEY REFER TO THE INDEMNIFICATION AND INSURANCE REQUIREMENTS ARE AS FOLLOWS:
  - i. PUBLIC LIABILITY BODILY INSURANCE OF NOT LESS THAN ONE MILLION DOLLARS (\$1,000,000.00) FOR INJURIES, INCLUDING DEATH, TO ANY ONE PERSON, AND SUBJECT TO THE SAME LIMIT FOR EACH PERSON, IN AN AMOUNT OF NOT LESS THAN TWO MILLION (\$2,000,000.00) ON ACCOUNT OF ONE ACCIDENT.
  - ii. PUBLIC LIABILITY PROPERTY DAMAGE INSURANCE IN AN AMOUNT OF NOT LESS THAN FIVE HUNDRED THOUSAND DOLLARS (\$500,000.00).
  - iii. AUTOMOBILE PUBLIC LIABILITY BODILY INJURY (\$1,000,000.00/\$2,000,000.00) AND PROPERTY DAMAGE (\$2,000,000.00) LIMITS.
  - iv. CONTRACTUAL INSURANCE OF THE SAME LIMITS AS REQUIRED UNDER PARAGRAPH (i).
  - v. THE CONTRACTOR SHALL NOT BE ALLOWED TO START CONSTRUCTION UNTIL CERTIFICATES OF INSURANCE INDEMNIFYING THE ADDITIONAL INSURED HAVE BEEN DELIVERED AND APPROVED BY PIGGUSH ENGINEERING, INC., THE **GENERAL DEVELOPMENT CORPORATION OF KANKAKEE**, OR THE **VILLAGE OF BRADLEY**.
- XXII. THE CONTRACTOR WILL NOT BE ALLOWED TO COMMENCE WITH ANY CONSTRUCTION ACTIVITIES UNTIL ALL REQUIRED CERTIFICATES OF INSURANCE INDEMNIFYING AND ADDING AS ADDITIONAL INSURED THE **VILLAGE OF BRADLEY** AND PIGGUSH ENGINEERING, INC. AND THEIR OFFICERS, EMPLOYEES AND AGENTS, HAVE BEEN DELIVERED TO AND APPROVED BY THE **VILLAGE OF BRADLEY**. ALL CONTRACTOR OF RECORD INSURANCE REQUIREMENTS SHALL BE IN ACCORDANCE WITH ARTICLE 107.27 OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

- XXIII. THE **VILLAGE OF BRADLEY** AND ITS ENGINEER SHALL BE GIVEN WRITTEN NOTIFICATION AT LEAST TWO FULL DAYS PRIOR TO COMMENCEMENT OF ANY MOBILIZATION, DEMOLITION, STRIPPING, GRADING AND/OR UNDERGROUND ACTIVITIES. FURTHERMORE, THE ENGINEER IS TO BE NOTIFIED BY THE CONTRACTOR AT LEAST ONE DAY PRIOR TO COVERING ANY EXPOSED SUBGRADE, PLACING ANY FILL, BACKFILLING SANITARY, WATER, OR STORM LINES, PLACING AGGREGATE BASE COURSE, AS WELL AS PLACEMENT OF CONCRETE OR ASPHALT.
- XXIV. ALL PROPOSED SITE IMPROVEMENTS THAT ARE SHOWN IN THE FOLLOWING CONSTRUCTION DOCUMENTS **NOT** LOCATED WITHIN A MAPPED FLOODPLAIN AND **NOT** LOCATED WITHIN DRAWN WETLANDS AS SHOWN ON THE NATIONAL WETLAND INVENTORY MAP.
- XXV. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH RECORD DRAWINGS OR FIELD NOTES TO PIGGUSH ENGINEERING, INC. THAT CONTAIN ANY AND ALL INFORMATION DEPICTED ALL APPROVED AND/OR NECESSARY FIELD MODIFICATIONS THAT WERE MADE TO PLANS, LOCATIONS OF ANY AND ALL FIELD TIES, SERVICE CONNECTIONS, AND ANY OTHER INFORMATION DEEMED NECESSARY BY THE ENGINEER.
- XXVI. EXTRA OR FORCE ACCOUNT WORK OR ANY NATURE SHALL ONLY BE UNDERTAKEN WITH WRITTEN APPROVAL FROM THE OWNER, THE ENGINEER OR OWNER'S REPRESENTATIVES. ALL FORCE ACCOUNT WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 109.04 OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION AND INCLUDING ALL ADDENDA.
- XXVII. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR OF RECORD TO HAVE THE MOST RECENT SET OF "APPROVED FOR CONSTRUCTION" FINAL ENGINEERING PLANS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
- XXVIII. CONSTRUCTION SITE LAYOUT/STAKEOUT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR OF RECORD AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTACT UNLESS OTHERWISE NOTED IN THE BID/CONSTRUCTION DOCUMENTS.
- XXIX. THE CONTRACTOR SHALL MAKE NO CLAIM AGAINST THE OWNER OR THE ENGINEER REGARDING ALLEGED INACCURACY OF CONSTRUCTION STAKES SET BY THE ENGINEER, THEIR SURVEYOR, OR SURVEYING COMPANY UNLESS ALL SURVEY STAKES SET BY THE AFOREMENTIONED ARE MAINTAINED INTACT AND CAN BE VERIFIED AS TO THEIR ORIGIN, IF, IN THE OPINION OF THE ENGINEER, THE STAKES ARE NOT MAINTAINED INTACT AND CANNOT BE VERIFIED AS TO THEIR ORIGIN, ANY REWALK WORK REQUIRED TO CORRECT ANY ITEM OR IMPROPER CONSTRUCTION WORK IN THIS DEVELOPMENT SHALL BE PERFORMED AT THE SOLE EXPENSE OF THE RESPONSIBLE CONTRACTOR OR SUBCONTRACTOR.
- XXX. ALL PROPOSED PAVEMENT, CURB AND/OR SIDEWALK GRADES SHALL BE CONSTRUCTED WITHIN 0.05 FEET OF PROPOSED PLAN GRADES SHOWN IN THE PLANS UNLESS A PRIOR WRITTEN REQUEST HAS BEEN APPROVED BY THE ENGINEER. IN ADDITION, ALL PROPOSED VEGETATIVE OR LANDSCAPED GRADES SHALL BE CONSTRUCTED WITHIN 0.23 FEET OF PROPOSED PLAN GRADES SHOWN IN THE PLANS UNLESS A PRIOR WRITTEN REQUEST HAS BEEN APPROVED BY THE ENGINEER.
- XXXI. THE CONTRACTOR OF RECORD AND THEIR AGENTS, SUBCONTRACTORS AND/OR EMPLOYEES SHALL HAVE THE RESPONSIBILITY OF VERIFYING ALL DIMENSIONS, MATERIALS AND GRADES PRIOR TO ORDERING MATERIALS AND STARTING THE WORK AS SHOWN ON THE PLANS.
- XXXII. THE CONTRACTOR SHALL FURNISH ALL CONSTRUCTION SIGNS AND BARRICADES AS REQUIRED BY ANY LOCAL, STATE AND/OR FEDERAL REQUIREMENTS. ALL AFOREMENTIONED SIGNAGE SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNLESS SPECIFIED OTHERWISE IN THE CONSTRUCTION DOCUMENTS AND/OR PROJECT SPECIAL PROVISIONS.
- XXXIII. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO ANY PROPOSED UTILITY PIPING AND/OR ANY EXISTING UNDERGROUND UTILITY PIPING THAT IS TO BE MODIFIED PER THE IMPROVEMENT PLANS, IS COVERED SO APPROPRIATE INSPECTIONS CAN BE MADE AND AS-BUILT MEASUREMENTS MAY BE TAKEN. UTILITY LINES SHALL NOT BE COVERED UNTIL A LOCATION SURVEY HAS BEEN COMPLETED FOR EACH RESPECTIVE SECTION OF THE WORK.

## DEMOLITION NOTES

- I. NO AREA SHALL BE CLEARED UNLESS SPECIFIED ON THE PLANS OR WITHOUT THE PERMISSION OF THE ENGINEER.
- II. ANY EXISTING PAVEMENT AND STREETS DAMAGED DURING CONSTRUCTION OUTSIDE THE LIMITS OF CONSTRUCTION AREA SHALL BE REPLACED IN KIND, AND COST SHALL BE INCIDENTAL TO THE CONTRACT.
- III. TREE STUMP REMOVAL SHALL INCLUDE GRINDING THE STUMP DOWN TO 12 INCHES BELOW EXISTING GRADE.

## EXCAVATION NOTES

- I. PRIOR TO COMMENCING ANY FILL OPERATIONS IN STRUCTURAL BUILDING, PAVEMENT OR SIDEWALK AREAS, ALL TOPSOIL IS TO BE REMOVED, UNLESS OTHERWISE NOTED.
- II. UPON STRIPPING OF TOPSOIL FROM STRUCTURAL, PAVEMENT AND/OR UTILITY AREAS AND PRIOR TO PLACEMENT OF FILLS OR SUBBASE COURSES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND/OR THE OWNER'S TESTING LABORATORY IF APPLICABLE, FOR SAMPLE SELECTION AND/OR FIELD VERIFICATION OF THE ADEQUATE SUBGRADE STRENGTH. SOIL SUBGRADE STRENGTH IN PAVEMENT AREAS SHALL BE EVALUATED WITH THE AID OF A FULLY-LOADED EXCAVATION HAULING TRUCK, AND BY MEANS OF DENSITY TESTS.
- III. EARTH EXCAVATION SHALL INCLUDE CLEARING, ANY STRIPPING OF EXISTING NON STRUCTURAL AND/OR UNSUITABLE IN-SITU MATERIAL, REMOVAL OF EXISTING STRUCTURES, REMOVING UNSUITABLE MATERIALS, THE CONSTRUCTION OF EMBANKMENTS, NON-STRUCTURAL FILLS, FINAL SHAPING AND TRIMMING TO THE CONTOUR LINES AND/OR GRADES SHOWN ON THE PLANS.
- IV. WHERE SECTION STONES AND/OR PROPERTY MARKERS ARE ENCOUNTERED, ALL MARKERS SHALL BE PROTECTED AND PRESERVED UNTIL AN OWNER OR SURVEYOR, LICENSED IN THAT JURISDICTION, HAS WITNESSED AND REFERENCED THEIR LOCATION.
- V. ANY AND ALL EXCESS IN SITU SOIL MATERIALS THAT ARE EITHER DUG, MINED, QUARRIED, OR EXHUMED FROM THE SITE SHALL BE THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR. ANY REMOVAL AND DISPOSAL OF THESE AFOREMENTIONED MATERIALS SHALL BE DONE IN ACCORDANCE WITH ALL PERTINENT AND APPROPRIATE FEDERAL, STATE, AND LOCAL REGULATIONS WHICH SHALL INCLUDE, BUT NOT LIMITED TO, COMPLIANCE WITH EPA CDD REQUIREMENTS.
- VI. ALL PLACED FILLS SHALL BE COMPACTED IN A MAXIMUM OF SIX-INCH LIFTS TO A MINIMUM COMPACTION REQUIREMENT OF 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY IN ACCORDANCE WITH SECTION 205 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION AND ALL ADDENDA THERETO.
- VII. NO ROCK, STONES OR BROKEN CONCRETE MORE THAN FOUR INCHES IN THE LARGEST DIMENSION SHALL BE PERMITTED WITHIN A VERTICAL DISTANCE OF TWELVE INCHES FROM THE SURFACE OF THE FINISHED EARTH GRADE OR FINISHED EARTH SHOULDERS.
- VIII. SOIL EROSION PRACTICES SHALL BE EMPLOYED BY THE CONTRACTOR, WHO SHALL ASSUME THE ENTIRE RESPONSIBILITY TO MAINTAIN THE PROJECT ACTIVITIES WITHIN COMPLIANCE OF THE EPA NPDES PERMIT REQUIREMENTS AND IN ACCORDANCE WITH ANY APPLICABLE STORMWATER POLLUTION PREVENTION PLAN THAT HAS BEEN GENERATED FOR THE PROJECT AS WELL AS ANY MORE RESTRICTIVE LOCAL, STATE OR FEDERAL REGULATIONS THAT MAY APPLY TO THE ACTIVITIES DEPICTED IN THE PLAN-SHEET HEREIN.
- IX. UPON COMPLETION OF THE WORK, TOPSOIL SHALL BE SPREAD TO A MINIMUM THICKNESS OF 6-INCHES AND GRADED TO MEET SURROUNDING ELEVATIONS.
- X. ALL DISTURBED UNPAVED AREAS SHALL BE SEED/SODDED WITHIN 30 DAYS OF SUBSTANTIAL COMPLETION OF THE SITE CONSTRUCTION OPERATIONS UNLESS OTHERWISE APPROVED BY THE VILLAGE.
- XI. PERIMETER TEMPORARY EROSION CONTROL SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. DITCH CHECKS, INLET PROTECTION, AND OTHER LINE CONTROLS SHALL BE INSTALLED IMMEDIATELY AFTER THE RELEVANT CONSTRUCTION ACTIVITIES.
- XXII. ALL TEMPORARY EROSION CONTROL, SUCH AS SILT FENCE AND STRAW BALES, INLET PROTECTION, ETC. SHALL BE INSPECTED AND MAINTAINED, BY THE CONTRACTOR, ON A DAILY BASIS.

## SANITARY SEWER SYSTEM NOTES

- I. ALL SANITARY MANHOLES SHALL HAVE WATERSTOP GASKETS CAST TO STRUCTURES AT ALL PIPE PENETRATIONS.
- II. SANITARY MANHOLES SHALL HAVE CRETEX, OR APPROVED EQUAL, INTERNAL CHIMNEY SEALS AND PARSONS RAINSTOPPER INSERTS, OR APPROVED EQUAL.
- III. SANITARY SEWER JOINTS SHALL BE OF PUSHPN BELL AND SPIGOT TYPE WHICH SHALL CONFORM TO ASTM D-3212 WITH RUBBER RING ELASTOMERIC GASKETS WHICH SHALL CONFORM TO ASTM F477 FOR SR 26 AND SR 325 APPLICATIONS. ALL SANITARY PIPING MATERIAL SHALL HAVE A MINIMUM STANDARD DIMENSION RATIO OF 33.
- IV. ALL SANITARY SEWER PIPING MATERIAL SHALL CONFORM TO ASTM D 3034, TYPE PSM FOR SIZES 4" - 12" AND ASTM F-479-B9 FOR SIZES 18" - 36". THE MINIMUM ACCEPTABLE STANDARD DIMENSION RATIO (SDR) SHALL BE 35. THE PIPE SHALL BE MADE OF PVC PLASTIC HAVING A MINIMUM CELL CLASSIFICATION OF 12454-C. AND SHALL HAVE A MINIMUM PIPE STIFFNESS OF FORTY-FIVE POUNDS PER SQUARE INCH.
- V. THE JOINTS SHALL BE OF THE BELL AND SPIGOT TYPE ACCORDANCE WITH ASTM D 3212 AND THE GASKETS SHALL BE FLEXIBLE ELASTOMERIC SEALS (GASKETS) THAT CONFORM TO ASTM F477.
- VI. ALL EXISTING SEPTIC SYSTEMS LEACH FIELDS SHALL BE ABANDONED. ABANDONED SEPTIC TANKS SHALL HAVE THE BOTTOM CRACKED, AND FILLED WITH GRANULAR MATERIAL OR COMPLETELY REMOVED.
- VII. ALL SANITARY SEWERS SHALL BE CONSTRUCTED ON A MINIMUM FOUR INCHES OF BEDDING MATERIAL (EIGHT INCHES MINIMUM WHEN BEDDING OVER ROCK) IN ACCORDANCE WITH SECTION 20-2.20 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION. BEDDING MATERIAL SHALL BE IN ACCORDANCE WITH ASTM D-2321 AND SHALL HAVE A MINIMUM OF 3/4" OF COVER. ALL SERVICE CONNECTIONS SHALL TO A MINIMUM COMPACTION REQUIREMENT OF 85% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
- VIII. THE PIPE SHALL BE BACKFILLED WITH A MINIMUM OF 12" OF BEDDING MATERIAL COVERING THE PIPE. BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 20-2.21 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.
- IX. ALL SANITARY SEWERS SERVICE CONNECTIONS SHALL BE A MINIMUM PVC PIPE MATERIAL THICKNESS OF SIZE DIMENSION RATIO (SDR) AND SHALL BE PUSH-ON TYPE PIPE WITH ELASTOMERIC GASKETS PLACED AT 1% MINIMUM SLOPE, 10% MAXIMUM SLOPE, AND SHALL HAVE A MINIMUM OF 3/4" OF COVER. ALL SERVICE CONNECTIONS SHALL BE INSTALLED WITH A MINIMUM OF 5-F' LATERAL SEPARATION. A MINIMUM DISTANCE OF 3 FEET SHALL BE MAINTAINED BETWEEN 45 DEGREE BENDS.
- X. A 4 INCH BY 4 INCH PRESSURE TREATED WOODEN MARKER POST, PAINTED GREEN, SHALL BE PLACED AT THE END OF THE NEW SANITARY SERVICE STUB, AND BE EXPOSED 3 FEET ABOVE GROUND WITH A MINIMUM OF 2 FEET OF BURY BELOW GRADE.
- XI. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, THE FIRST SECTION OF SANITARY SEWER CONSTRUCTED OF 1,200 FEET IN LENGTH OR THE ENTIRE LENGTH OF THE SEWER IF IT IS LESS THAN 1,200 FEET SHALL BE TESTED BY THE AIR TESTING METHOD IN ACCORDANCE WITH SECTION 31-1.118(3) OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS, LATEST EDITION. AIR TESTING TECHNIQUES SHALL BE IN ACCORDANCE WITH THE APPROPRIATE PIPE MATERIAL EXCEPT THAT THE TIME SHALL NOT BE LESS THAN THAT SHOWN IN THE AIR TEST TABLE CONTAINED IN SECTION 31-1.113(C) OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS, LATEST EDITION.
- XII. DEFLECTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 31-1.118 (4) OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS, LATEST EDITION. THE ALLOWABLE DEFLECTION TESTING LIMITS SHALL BE IN ACCORDANCE WITH SECTION 31-1.11C (4). ALL NEWLY CONSTRUCTED SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH ASTM C1244.
- XIII. ALL SANITARY MANHOLES SHALL HAVE A MINIMUM INSIDE DIAMETER OF FORTY-EIGHT INCHES AND SHALL BE CONSTRUCTED OF CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE, HAVE WATERSTOP FRAME AND LIDS, AND CRETEX INTERNAL CHIMNEY SEALS, OR APPROVED EQUAL.
- XIV. ALL MANHOLES SHALL HAVE INTEGRAL BASES AND MACWRAP EXTERNAL JOINT SEALING BANDS IN ACCORDANCE WITH ASTM C-877, OR APPROVED EQUIVALENT, AS WELL AS "BUTTERED" INTERNAL SANITARY MANHOLE JOINTS.
- XV. A BENCHED INLET SHALL BE REQUIRED IN ALL NEW SANITARY MANHOLE CONSTRUCTION AS DEPICTED IN THE SANITARY MANHOLE DETAIL INCLUDED IN THESE PLANS.
- XVI. SEWER PLUGS SHALL BE INSTALLED AT THE DOWNSTREAM ENDS OF ALL NEW SEWERS AND LEFT IN PLACE UNTIL THE SEWERS ARE ACCEPTED BY THE GOVERNING BODY. SEWER PLUGS SHALL BE INSTALLED AT UPSTREAM ENDS OF NEW SEWERS AT THE END OF EVERY WORKDAY.
- XVII. LIFT STATION WET WELLS SHALL BE AN IDOT TYPE A MANHOLE, OR OF THE STRUCTURE TYPE AND SIZE DEPICTED IN THE PLANS, WITH AN EXTRA HEAVY-WEIGHT BOTTOM AND MASTIC JOINTS BETWEEN BARREL SECTIONS TO PREVENT WATER SEEPAGE. THE LIFT STATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH ILLINOIS ADMINISTRATIVE CODE 370.420 FOR SUBMERSIBLE PUMP STATIONS AS WELL AS CHAPTER 40 OF THE ILLINOIS STATES STANDARD RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES, LATEST EDITION. THE ENGINEER SHALL BE MADE AWARE, IN WRITING, TO ANY DEVIATIONS FROM THESE CRITERIA AS A RESULT OF ANY UNKNOWN AND/OR UNFORESEEN FIELD CONDITIONS THAT MAY ARISE DURING CONSTRUCTION.
- XVIII. ALL NEW FORCE MAIN SHALL BE OF PVC MATERIAL AND HAVE A MINIMUM SIZE DIMENSION RATIO (SDR) OF 26 AND SHALL BE IN ACCORDANCE WITH ASTM D 2241 WITH PUSH ON GASKETED JOINTS IN ACCORDANCE WITH ASTM D 3139. FORCE MAIN PIPING SHALL BE BEDDED AND BACKFILLED IN ACCORDANCE WITH ASTM D 2321 RESTRICTED TO CLASS II AND III EMBANKMENT MATERIALS EXCEPT THAT THE MAXIMUM PARTICLE SIZE SHALL NOT EXCEED 1/2" INCH, UNLESS SPECIFIED ELSEWHERE IN THE PLANS AND/OR CONSTRUCTION DOCUMENTS.
- XIX. SANITARY SEWER MAINS AND SERVICES SHALL BE INSTALLED A CERTAIN DISTANCE FROM WATER MAINS AND SERVICES IN ORDER TO COMPLY WITH ALL HORIZONTAL AND VERTICAL SEPARATION REQUIREMENTS WITH SECTIONS 41-2.018-C OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION, AS WELL AS IN ACCORDANCE WITH SECTION 370.550 OF THE ILLINOIS RECOMMENDED STANDARDS FOR SEWAGE WORKS.
- XX. ALL TRENCH BACKFILL THAT IS WARRANTED BY THE BACKFILL REQUIREMENTS FOR UNDERGROUND PIPING IN HARDCAPE AREAS THAT IS PREVIOUSLY REFERENCED IN THESE NOTES FOR SANITARY SEWER SERVICES SHALL BE INCLUDED IN THE PRICE OF THE SERVICE.
- XXI. ALL FLOOR DRAINS SHALL DISCHARGE INTO THE SANITARY SEWER SYSTEM.

## CULVERT NOTES

- I. ALL CULVERTS SHALL BE INSTALLED PER SECTION 542 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION INCLUDING ALL ADDENDA THERETO. ALL PIPING SHALL BE OF TYPE AND CLASS NUMBERS OF THE PIPE SHALL BE DETERMINED BASED ON THE DEPTH AND PIPE MATERIAL SPECIFIED IN THE STORM SCHEDULE AND IN ACCORDANCE WITH SECTION 550 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION AND ALL ADDENDA THERETO. ALL CONCRETE CULVERT PIPING SHALL HAVE FLEXIBLE GASKETED JOINTS IN ACCORDANCE WITH ASTM C361 OR C443 UNLESS SPECIFIED OTHERWISE IN THE PLANS.
- II. REINFORCED CONCRETE CULVERTS SHALL BE BACKFILLED WITH CLEAN CA-7 BACKFILL MATERIAL PER SECTION 208 OF THE STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION AND ALL ADDENDA THERETO. THIS BACKFILL SHALL BE PLACED FOR THE ENTIRE LENGTH OF THE CULVERT THAT LIES BENEATH HARDCAPE AREAS. HOWEVER, THE FINAL FOUR FEET ON EACH END OF THE CULVERT SHALL BE BACKFILLED WITH COMPACTED SOIL MATERIALS IN ORDER TO PREVENT EROSION OF THE CLEAN AGGREGATE BACKFILL.
- III. WHERE SITE CONDITIONS ALLOW, THE CONTRACTOR SHALL INSTALL STORM CULVERTS WITH A MINIMUM COVER OF 2 FEET UNLESS SPECIFIED BY THE ENGINEER ELSEWHERE IN THE PLANS, BID SPECIFICATIONS, SPECIAL PROVISIONS, AND/OR ADDENDA.
- IV. ALL REINFORCED CONCRETE PIPE CULVERTS 15 INCHES AND LARGER IN DIAMETER SHALL HAVE GRATES INSTALLED ON THE FLARED END SECTIONS IN ACCORDANCE WITH SECTION 942 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, AND ALL ADDENDA THERETO.

## STORM SEWER NOTES

- I. ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP) WITH FLEXIBLE GASKETED JOINTS IN ACCORDANCE WITH ASTM C-231 OR C-443 UNLESS OTHERWISE NOTED IN THE PLANS, STORM SCHEDULE OR ANY ADDITIONAL CONSTRUCTION DOCUMENTS.
- II. THE TYPE AND CLASS NUMBERS OF THE PIPE SHALL BE DETERMINED BASED ON THE DEPTH AND PIPE MATERIAL SPECIFIED IN THE STORM SCHEDULE AND IN ACCORDANCE WITH SECTION 550 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION AND ALL ADDENDA THERETO. ALL STORM SEWER UNDER PAVED, SIDEWALK AND/OR OTHER HARDCAPE AREAS SHALL BE CLASS IV REINFORCED CONCRETE PIPE (RCP).
- III. ALL PROPOSED BUILDING DOWNSPOUTS AND FOOTING DRAINAGE SYSTEMS SHALL BE DIRECTLY TIED IN THE PROPOSED AND/OR EXISTING STORM SYSTEM AS SHOWN UNLESS DEPICTED OTHERWISE IN THE PLANS.
- IV. THE CONNECTION OF THE STORM SEWER PIPE TO ANY EXISTING STORM INLETS SHALL BE CAREFULLY SAWCUT OR CORE DRILLED TO INSURE THE SAFETY OF THE STRUCTURE. IT SHOULD BE MORTARED AROUND ALL SIDES OF THE PIPE TO INSURE A WATER-TIGHT SEAL AND SHALL BE CONSIDERED AS INCIDENTAL TO THE SEWER PIPE AND SHALL NOT BE PAID FOR SEPARATELY.
- V. ALL STORM INLETS TO BE INLET TYPE A OR TYPE B AS SPECIFIED IN THE PLANS OR SCHEDULE AND ALL GRATES TO BE AS SHOWN IN THE SCHEDULE OF EAST JORDAN OR NEENAH MANUFACTURE AND SHALL COMPLY WITH SECTION 604 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION AND ALL ADDENDA THERETO.
- VI. ALL STORM INLET STRUCTURES SHALL COMPLY WITH ASTM C 478 AND INTERIOR JOINTS SHALL BE "BUTTERED" WITH NON-SHRINK GROUT.
- VII. THERE SHALL BE A MAXIMUM OF 2 ADJUSTING RINGS WITH A MAXIMUM TOTAL HEIGHT OF 12 INCHES.
- VIII. IF THE CASTING MUST BE INSTALLED ON A SLOPE, PREFORMED RUBBER TAPERED RINGS MAY BE USED.
- IX. ADJUST RINGS 2 INCHES OR LESS IN THICKNESS SHALL BE OF PREFORMED RUBBER MATERIAL.

## WATER SYSTEM NOTES

- I. ALL WATER MAINS, SERVICE CONNECTIONS, AND ASSOCIATED APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION AS WELL AS THE MATERIAL AND INSTALLATION SPECIFICATIONS OF AQUA ILLINOIS, INC.
- II. ANY WATER MAINS THAT ARE REQUIRED TO BE SHUT OFF FOR REPAIRS, INSTALLATION, ETC. SHALL ONLY BE TURNED OFF/ON BY AN AUTHORIZED REPRESENTATIVE OF AQUA ILLINOIS, INC.
- III. ALL WATER MAIN MATERIALS SHALL BE IN ACCORDANCE WITH AWWA C151. DUCTILE IRON PIPE SHALL HAVE CEMENT LINED INTERIOR AND BITUMINOUS COATED EXTERIOR IN ACCORDANCE WITH AWWA C104, AND BE FOR PRESSURE CLASS 350 IN ACCORDANCE WITH AWWA C150, WITH SLIP-ON JOINTS. MANUFACTURERS SHALL BE US PIPE, CLOW OR EQUAL AS APPROVED BY THE ENGINEER OR AN AUTHORIZED REPRESENTATIVE OF AQUA ILLINOIS, INC.
- IV. POLYVINYL CHLORIDE PIPING SHALL BE OF CERTA-LOK DR 18 C900 (R), RESTRAINED JOINT PVC PIPE FOR DIRECTIONAL BORING.
- V. WATER MAIN GASKETING SHALL BE IN ACCORDANCE WITH AWWA C111 AND SHALL BE SLIP ON OR MECHANICAL JOINTS, RUBBER GASKETS UNLESS OTHERWISE INDICATED.
- VI. ALL WATER MAIN SHALL BE CONSTRUCTED WITH 8 MIL POLYETHYLENE TUBE ENCASEMENT IN ACCORDANCE WITH AWWA C105 AND SHALL BE SECURED WITH PLASTIC TAPE OR TWINE IN ORDER TO SECURE THE WRAP-IN PLACE.
- VII. EXISTING SOIL SHALL BE EXCAVATED TO AN APPROPRIATE DEPTH TO ACCOMMODATE BEDDING AND PIPE DIAMETER IN ORDER TO ACHIEVE A COVER OF FORTY-EIGHT TO FIFTY-FOUR INCHES BELOW FINISHED GRADE OVER ALL WATER MAINS AND SERVICES UNLESS SPECIFIED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS, SPECIAL PROVISIONS AND/OR BIDDING ADDENDA.
- VIII. TAPPING SLEEVES SHALL BE STAINLESS STEEL AND MANUFACTURERS SHALL BE SMITH BLAIR 665 OR EQUAL AS APPROVED BY THE ENGINEER OR AN AUTHORIZED REPRESENTATIVE OF AQUA ILLINOIS, INC.
- IX. ALL VALVES, CURB BOXES, TAPPING INSTALLATIONS AND HYDRANTS ARE TO MATCH THE MATERIAL AND TYPE CURRENTLY SPECIFIED AND UTILIZED BY AQUA ILLINOIS, INC. AS REFERENCED IN THESE PLAN DETAILS.
- X. NEW WATER SERVICES SHALL BE 1" TYPE 'K' COPPER WITH MUELLER H-1054-2 CURB STOP AND MUELLER 10300 CURB BOX PER THE MATERIAL AND INSTALLATION SPECIFICATIONS OF AQUA ILLINOIS, INC. UNLESS SPECIFIED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS, SPECIAL PROVISIONS AND/OR BIDDING ADDENDA.
- XI. ALL WATER MAIN SHALL BE PRESSURE TESTED IN ACCORDANCE WITH SECTION 41-2.13A OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION AS WELL AS IN ACCORDANCE WITH AWWA STANDARD C-603 AND C-600.
- XII. WATER MAIN DISINFECTION SHALL BE PERFORMED IN ACCORDANCE WITH AWWA STANDARD C651-92 AS WELL AS DIRECTED AND WITNESSED BY A REPRESENTATIVE OF AQUA ILLINOIS, INC.
- XIII. CHLORINE RESIDUAL IN WATER USED FOR DISINFECTING WATER MAINS MUST NOT EXCEED 0.10 MG/L AT THE DISCHARGE POINT IF DISCHARGED INTO ANY STREAM OR BODY OF WATER.
- XIV. WATER MAINS AND WATER SERVICES SHALL BE LOCATED AT A MINIMUM OF 10-FEET MINIMUM LATERALLY FROM ALL STORM SEWER, SANITARY SEWERS, COMBINED SEWER, DRAIN LINES, TILES AND/OR ANY STORM OR SANITARY SEWER CONNECTION. THIS SEPARATION SHALL BE ACHIEVED IN ACCORDANCE WITH SECTION OF THE 41-2.018 STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.
- XV. WATER MAINS AND SERVICES SHALL BE LOCATED AT A MINIMUM OF 18-INCHES MINIMUM VERTICALLY FROM THE CROWN OF ALL STORM SEWER, SANITARY SEWERS, COMBINED SEWER, DRAIN LINES, TILES AND/OR ANY STORM OR SANITARY SEWER CONNECTION. THIS SEPARATION SHALL BE ACHIEVED IN ACCORDANCE WITH SECTION OF THE 41-2.01C STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.
- XVI. ALL TRENCH BACKFILL THAT IS WARRANTED BY THE BACKFILL REQUIREMENTS FOR HARDCAPE PREVIOUSLY IN THESE NOTES FOR WATER SERVICES SHALL BE INCLUDED IN THE PRICE OF THE SERVICE.
- XVII. FOR ALL PVC C900 WATERMAIN INSTALLATIONS, A 10 GAUGE, SOLID COPPER TRACER WIRE, COATED IN PLASTIC, SHALL BE FURNISHED AND INSTALLED WITH ALL WATER MAINS. UNLESS SPECIFIED ELSEWHERE IN THE PLANS OR CONSTRUCTION DOCUMENTS, COST FOR MATERIAL AND LABOR FOR INSTALLATION OF THIS WIRE SHALL BE INCIDENTAL TO THE COST OF INSTALLATION OF THE WATER MAIN. INSTALLATION OF THE TRACER WIRE SHALL OCCUR IN THE WATER MAIN TRENCH EITHER BELOW OR ON THE SIDE OF THE WATER MAIN. IN NO INSTANCE SHALL ANY TRACER WIRE BE INSTALLED OVER THE TOP OF THE WATER MAIN.

## PAVEMENT NOTES

- I. ALL EXISTING CONCRETE AND BITUMINOUS PAVEMENT AND CONCRETE CURB THAT IS SHOWN TO BE REMOVED SHALL INCLUDE SAW-CUTTING AND REMOVING EXISTING PAVEMENT STRUCTURE AS WELL AS CONCRETE CURB AND ANY STABILIZED SUBBASE AS REQUIRED BY SECTION 440 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION AND ALL ADDENDA THERETO.
- II. CONTRACTION JOINTS IN CONCRETE CURB AND GUTTER SHALL BE PLACED AT A 25 FOOT MAXIMUM INTERVAL. EXPANSION JOINTS IN THE CONCRETE CURB AND GUTTER SHALL BE PLACED AT A MAXIMUM SPACING OF 200 FT IN STRAIGHT SECTIONS. AT ALL POINT OF CURVATURES AND POINTS OF TANGENCY IN THE CURB AS WELL AS FIVE FEET ON EACH SIDE OF ALL INLETS. IF AN INLET IS LOCATED ON A CURVE, EXPANSION JOINTS NEED BE PLACED AT EITHER A POINT OF CURVATURE, POINT OF TANGENCY OR FIVE FEET ON EACH SIDE OF AN INLET, BUT NOT AT BOTH LOCATIONS.
- III. THE PLACEMENT AND COMPACTION OF ANY AND ALL AGGREGATE BASE COURSE MATERIALS FOR THE PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 351 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION AND ALL ADDENDA THERETO.
- IV. PLACEMENT AND COMPACTION OF BOTH THE HOT MIX ASPHALT BINDER AND SURFACE COURSE MATERIALS SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 406 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION AND ALL ADDENDA THERETO.
- V. WHERE BINDER AND SURFACE COURSE HOT MIX ASPHALT MIXES ARE PLACED MORE THAN 5 WORKING DAYS APART, THE CONTRACTOR WILL BE REQUIRED TO PLACE 50-70 AND APPLIED AT A RATE OF 0.15 GALLONS PER SQUARE YARD TO THE BINDER COURSE.
- VI. ALL PCC SIDEWALK SHALL HAVE FIBROUS OR 6X6X10 WELDED WIRE FABRIC REINFORCEMENT AND SHALL BE INCIDENTAL TO THE COST OF THE SIDEWALK.

PIGGUSH ENGINEERING, INC



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REV	ISSUED	DESCRIPTION
1	07/23/15	PER CLIENT REVIEW
2	07/28/15	ADDENDUM 2
3	08/25/15	PER VILLAGE REVIEW
4	09/21/15	PER IDOT REVIEW

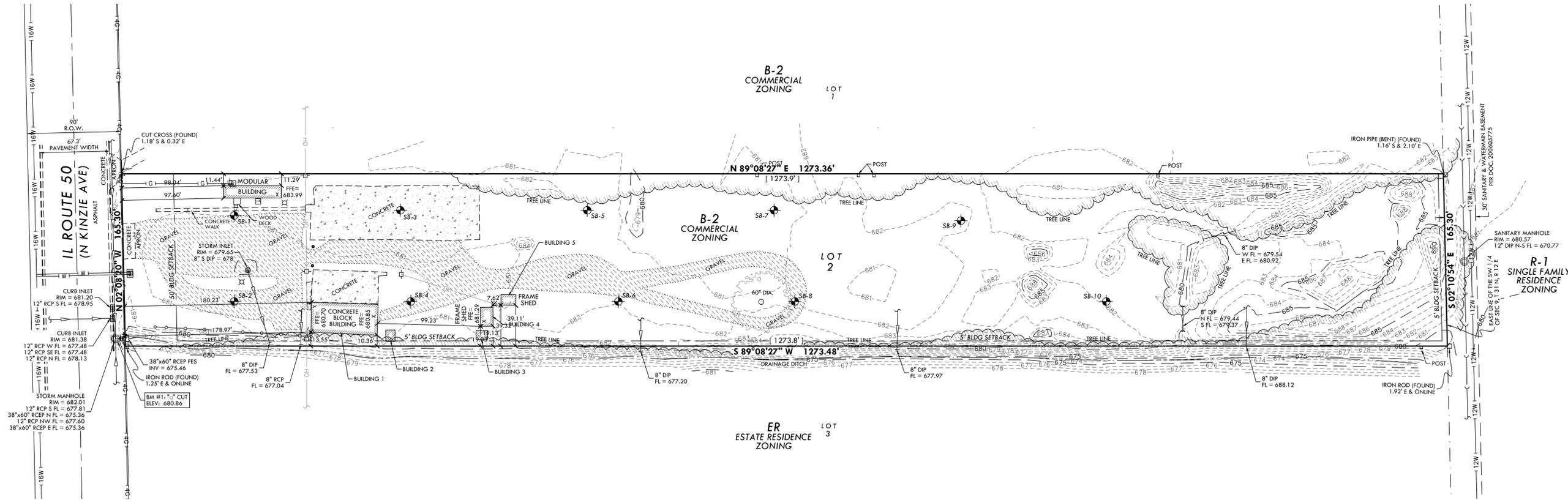
STORAGE FACILITY SITE PLAN

1806 NORTH ROUTE 50  
BOURBONNAIS, IL 60914

GENERAL DEVELOPMENT CORPORATION  
OF KANKAKEE  
3420 WOODHAVEN DRIVE  
BOURBONNAIS, IL 60914

PROJECT:	15023.0301
ISSUED:	07.15.15
DRAWN BY:	

**BOUNDARY & EXISTING TOPOGRAPHY**

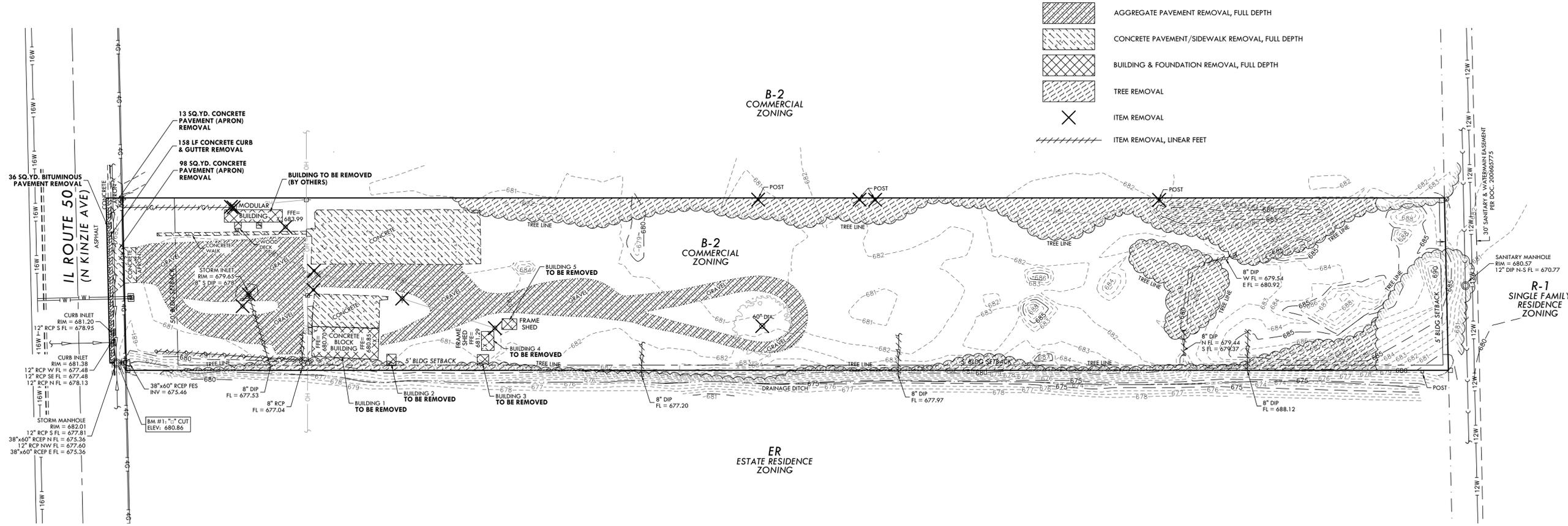


**PIGGUSH ENGINEERING, INC**  
 586 WILLIAM LATHAM DRIVE  
 SUITE 8  
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 IL DESIGN FIRM LICENSE NO. 184.006779

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1	07.23.15	PER CLIENT REVIEW
2	07.28.15	ADDENDUM 2
3	08.25.15	PER VILLAGE REVIEW
4	09.21.15	PER IDOT REVIEW

**REMOVALS PLAN**



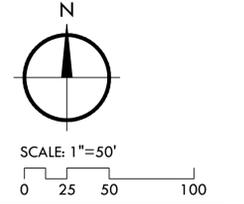
**SYMBOLS & LEGEND**

- AGGREGATE PAVEMENT REMOVAL, FULL DEPTH
- CONCRETE PAVEMENT/SIDEWALK REMOVAL, FULL DEPTH
- BUILDING & FOUNDATION REMOVAL, FULL DEPTH
- TREE REMOVAL
- ITEM REMOVAL
- ITEM REMOVAL, LINEAR FEET

**STORAGE FACILITY SITE PLAN**  
 1806 NORTH ROUTE 50  
 BOURBONNAIS, IL 60914

**GENERAL DEVELOPMENT CORPORATION OF KANKAKEE**  
 3420 WOODHAVEN DRIVE  
 BOURBONNAIS, IL 60914

PROJECT: 15023.0301  
 ISSUED: 07.15.15  
 DRAWN BY: MRG  
 CHECKED BY: NAP



**BOUNDARY, EXISTING TOPOGRAPHY & REMOVALS PLAN**

**C2.0**

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## STORM SEWER STRUCTURE SCHEDULE

1. PRECAST REINFORCED CONCRETE PIPE STUB 12" IN RETAINING WALL  
12" S. FL OUT INV = 674.10  
1-2: 3 LF 12" RCP @ 1.67%
2. MANHOLES, TYPE A, 6'-DIAMETER, WITH 2 TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE  
RIM = 679.1+  
12" SE. FL OUT INV = 674.15  
12" E. FL IN INV = 674.15  
12" W. FL IN INV = 674.15  
BOTTOM OF STRUCTURE = 671.15  
2-3: 24 LF 12" RCP @ 1.04%  
2-4: 64 LF 12" RCP @ 0.28%  
2-6: 47 LF 12" RCP @ 0.32%  
(INSTALL LOW PROFILE SNOUT, SEE RESTRICTOR MANHOLE DETAIL ON SHEET C5.1)
3. PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12" W/GRATING  
12" S. FL IN INV = 674.40
4. MANHOLES, TYPE A, 4' DIAMETER, TYPE 1 FRAME, CLOSED LID  
RIM = 679.1+  
12" E. FL OUT INV = 674.33  
12" N. FL IN INV = 674.33  
4-5: 26 LF 12" RCP @ 0.28%
5. PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12" W/GRATING  
12" S. FL IN INV = 674.40
6. MANHOLES, TYPE A, 4' DIAMETER, TYPE 1 FRAME, CLOSED LID  
RIM = 679.1+  
12" E. FL OUT INV = 674.33  
12" N. FL IN INV = 674.33  
6-7: 26 LF 12" RCP @ 0.32%
7. PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12" W/GRATING  
12" S. FL IN INV = 674.40
8. PRECAST REINFORCED CONCRETE FLARED END SECTIONS 30" W/GRATING  
30" SE. FL OUT INV = 677.37  
8-9: 57 LF 30" RCP @ 0.17%
9. MANHOLES, TYPE A, 5' DIAMETER, TYPE 1 FRAME, OPEN LID (W/1" STEEL PLATE LID)  
EOP = 681.18  
30" SE. FL OUT INV = 677.47  
30" W. FL IN INV = 677.47  
9-10: 155 LF 30" RCP @ 0.17%
10. MANHOLES, TYPE A, 4' DIAMETER, TYPE 1 FRAME, OPEN LID (W/1" STEEL PLATE LID)  
EOP = 681.23  
30" E. FL OUT INV = 677.73  
30" W. FL IN INV = 677.73  
10-11: 200 LF 30" RCP @ 0.14%
11. MANHOLES, TYPE A, 6' DIAMETER, TYPE 1 FRAME, OPEN LID (W/1" STEEL PLATE LID)  
EOP = 681.88  
30" E. FL OUT INV = 678.01  
18" W. FL IN INV = 678.01  
15" N. FL IN INV = 679.38  
11-12: 13 LF 15" RCP @ 3.45%  
11-13: 44 LF 18" RCP @ 0.18%
12. PRECAST REINFORCED CONCRETE PIPE STUB 15" IN RETAINING WALL  
T/WALL = 681.88  
15" N. FL IN INV = 679.83
13. INLETS, TYPE B, TYPE X FRAME, OPEN LID (EJ 1320 FR & 1480M GR)  
EOP = 681.36  
18" W. FL OUT INV = 678.09  
18" E. FL IN INV = 678.58  
13-14: 266 LF 18" RCP @ 0.12%
14. INLETS, TYPE B, TYPE X FRAME, OPEN LID (EJ 1320 FR & 1480M GR)  
RIM = 681.80  
18" E. FL OUT INV = 678.90  
12" E. FL IN INV = 678.90  
14-15: 101 LF 12" RCP @ 0.31%
15. INLETS, TYPE A, TYPE 1 FRAME, OPEN LID  
RIM = 681.89  
12" E. FL OUT INV = 679.21
16. PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24" W/GRATING  
24" NE. FL OUT INV = 677.61  
16-17: 40 LF 24" RCP @ 0.10%
17. MANHOLES, TYPE A, 4' DIAMETER, TYPE 1 FRAME, OPEN LID  
EOP = 681.18  
24" NE. FL OUT INV = 677.65  
24" W. FL IN INV = 677.65  
17-18: 154 LF 24" RCP @ 0.08%
18. MANHOLES, TYPE A, 5' DIAMETER, TYPE 1 FRAME, OPEN LID  
EOP = 681.48  
24" E. FL OUT INV = 677.78  
18" W. FL IN INV = 677.78  
12" N. FL IN INV = 679.11 (PLUGGED FOR FUTURE)  
18-19: 250 LF 18" RCP @ 0.13%
19. MANHOLES, TYPE A, 4' DIAMETER, TYPE 1 FRAME, OPEN LID  
EOP = 681.36  
18" E. FL OUT INV = 678.10  
15" W. FL IN INV = 678.84  
12" N. FL IN INV = 679.11  
19-20: 62 LF 12" RCP @ 0.22%  
19-21: 264 LF 15" RCP @ 0.15%
20. INLETS, TYPE A, TYPE 1 FRAME, OPEN LID  
RIM = 681.85  
12" S. FL OUT INV = 679.25
21. INLETS, TYPE B, TYPE X FRAME, OPEN LID (EJ 1320 FR & 1480M GR)  
EOP = 681.80  
15" W. FL OUT INV = 679.24  
15" N. FL IN INV = 679.44  
12" E. FL IN INV = 679.32  
21-22: 62 LF 15" RCP @ 0.15%  
21-23: 101 LF 12" RCP @ 0.22%
22. INLETS, TYPE B, TYPE X FRAME, OPEN LID (EJ 1320 FR & 1480M GR)  
RIM = 682.15  
15" S. FL OUT INV = 679.53
23. INLETS, TYPE A, TYPE 1 FRAME, OPEN LID  
RIM = 681.89  
12" E. FL OUT INV = 679.54
24. PRECAST REINFORCED CONCRETE PIPE STUB 18" IN RETAINING WALL  
T/WALL = 682.85  
15" S. FL OUT INV = 677.59  
24-25: 146 LF 15" RCP @ 1.05%
25. INLETS, TYPE B, TYPE X FRAME, OPEN LID (EJ 1320 FR & 1480M GR)  
RIM = 681.2+  
15" S. FL OUT INV = 679.12
26. CHANGE TO TYPE 24 FRAME AND GRATE  
EOP = 681.38
27. CHANGE TO TYPE 24 FRAME AND GRATE  
EOP = 681.20

## SANITARY SEWER STRUCTURE SCHEDULE

- A. 0.50 MBR WATER RECYCLING SYSTEM (BY OTHERS)  
RIM = 682.4±  
6" E. FL IN INV = 679.34  
1-2: 44 LF 6" PVC SDR 26 @ 1.00%  
(SEE 0.50 MBR DETAIL ON SHEET C5.3)
- B. SANITARY CLEANOUT  
RIM = 683.12  
6" W. FL OUT INV = 679.78

## UTILITY CROSSING SCHEDULE

- CR-1. PROPOSED FINISHED GRADE = 682.63  
15" STORM BOTTOM = 678.14  
1-1/4" WATER SERVICE TOP = 676.64
- CR-2. PROPOSED FINISHED GRADE = 682.58  
6" SANITARY BOTTOM = 679.78  
15" STORM TOP = 679.25

## SYMBOLS & LEGEND

-  NEW BITUMINOUS PAVEMENT
-  NEW HEAVY-DUTY HIGHWAY BITUMINOUS PAVEMENT
-  NEW CONCRETE LINED SWALE
-  NEW FENCE, WROUGHT IRON (BY OWNER)
-  NEW FENCE, CHAIN LINK (BY OWNER)
-  NEW CONDUIT, 2" SCH. 40 PVC
-  NEW INLET
-  NEW STORM MANHOLE
-  NEW FLARED END SECTION
-  NEW STORM SEWER PIPE
-  NEW DIRECTION OF GRADE
-  NEW 100-YR FLOW PATH
-  NEW FINISH GRADE SPOT ELEVATION
- ME MATCH EXISTING
- TF TOP OF FOUNDATION
- TW TOP OF WALK
- EP EDGE OF PAVEMENT

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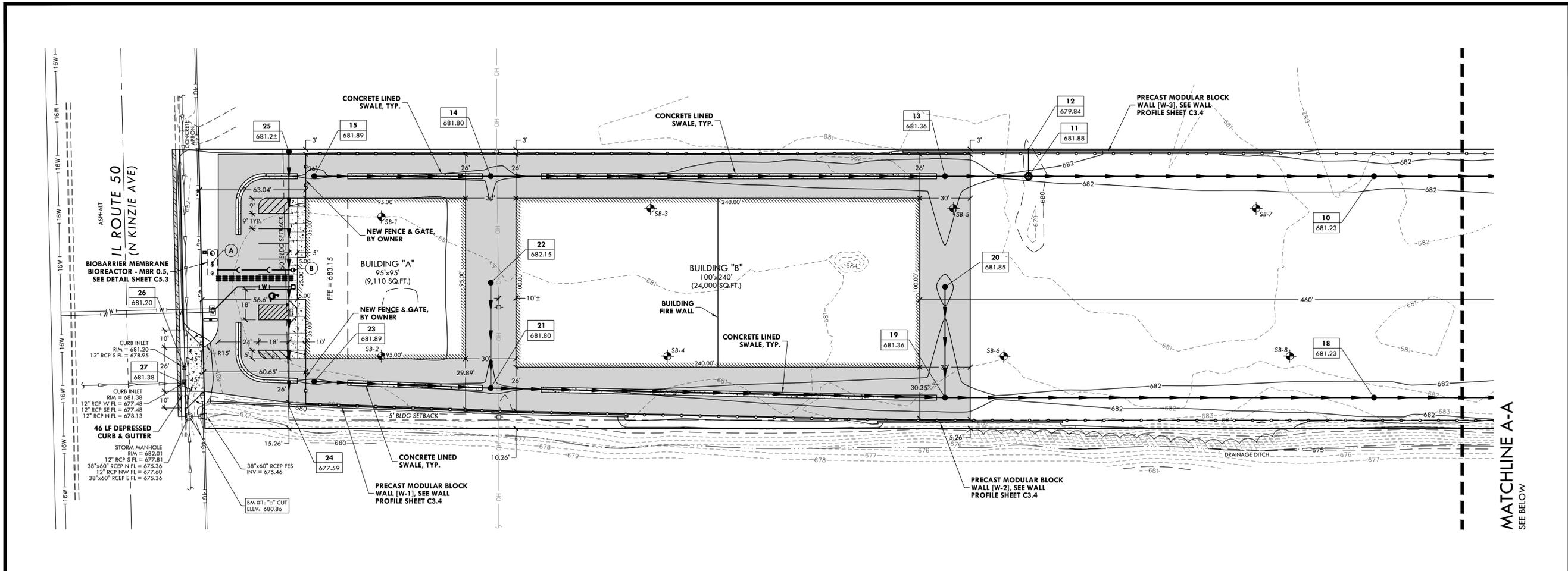
REV	ISSUED	DESCRIPTION
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3	08/25/15	PER VILLAGE REVIEW
4	09/21/15	PER IDOT REVIEW

**STORAGE FACILITY SITE PLAN**  
 1806 NORTH ROUTE 50  
 BOURBONNAIS, IL 60914  
**GENERAL DEVELOPMENT CORPORATION**  
 OF KANKAKEE  
 3420 WOODHAVEN DRIVE  
 BOURBONNAIS, IL 60914

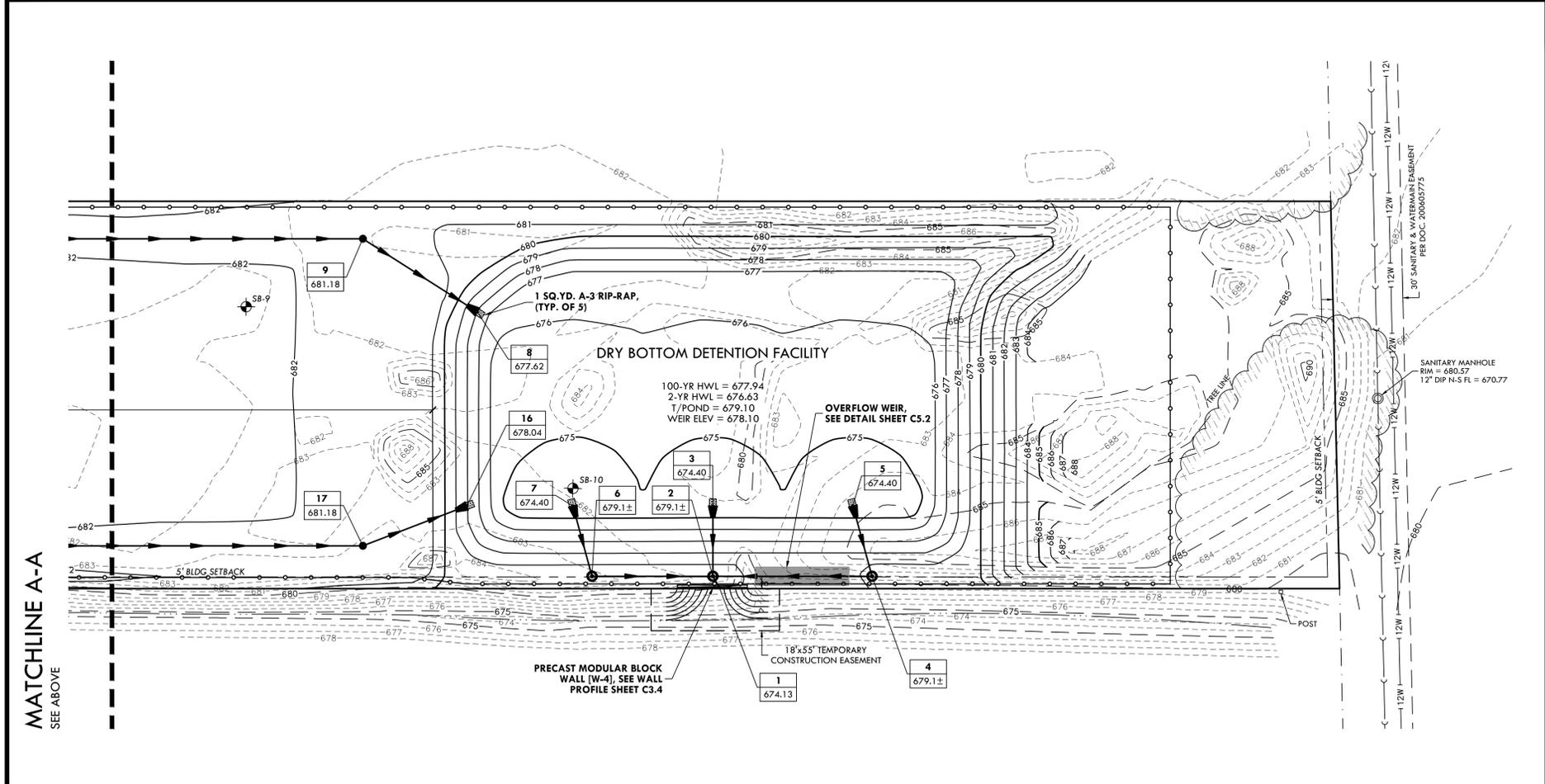
PROJECT: 15023.0301  
 ISSUED: 07.15.15  
 DRAWN BY: MRG  
 CHECKED BY: NAP

SITE SCHEDULES  
 &  
 LEGEND

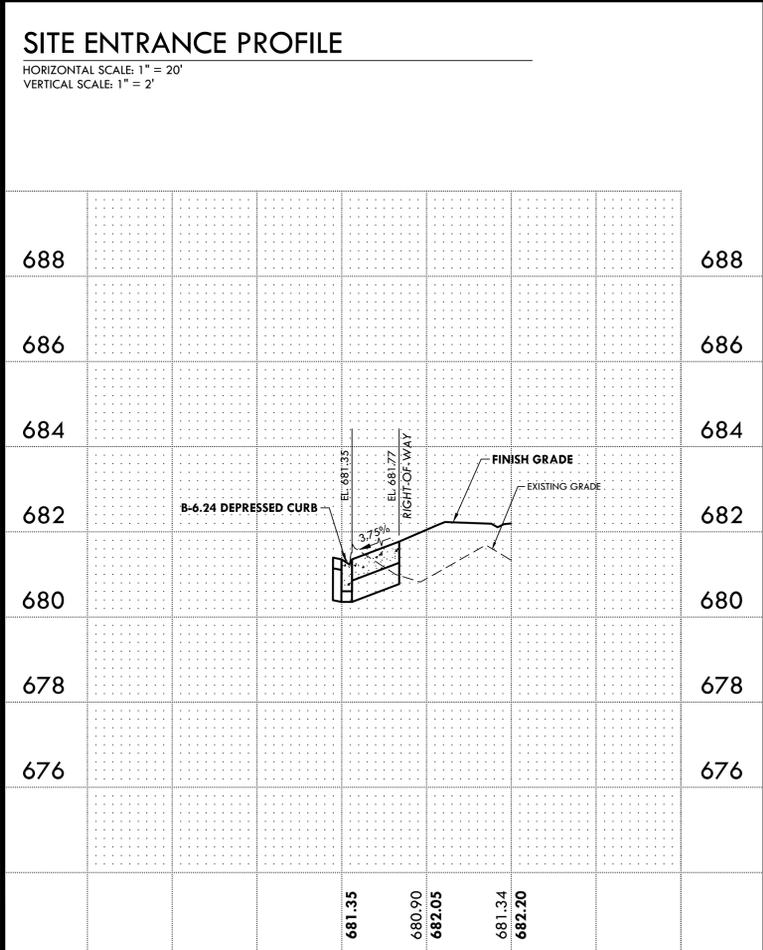
**C3.0**



MATCHLINE A-A  
SEE BELOW



MATCHLINE A-A  
SEE ABOVE



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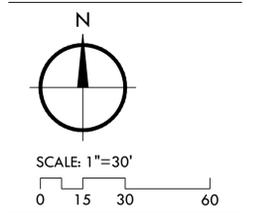
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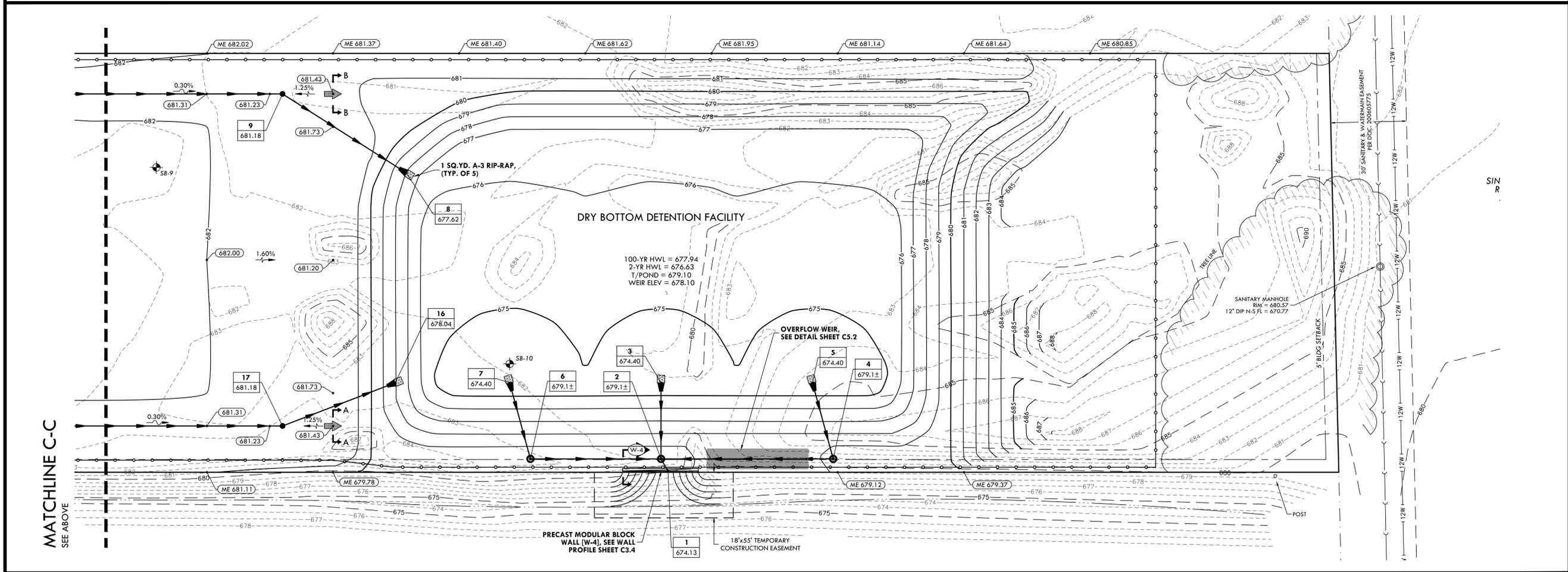
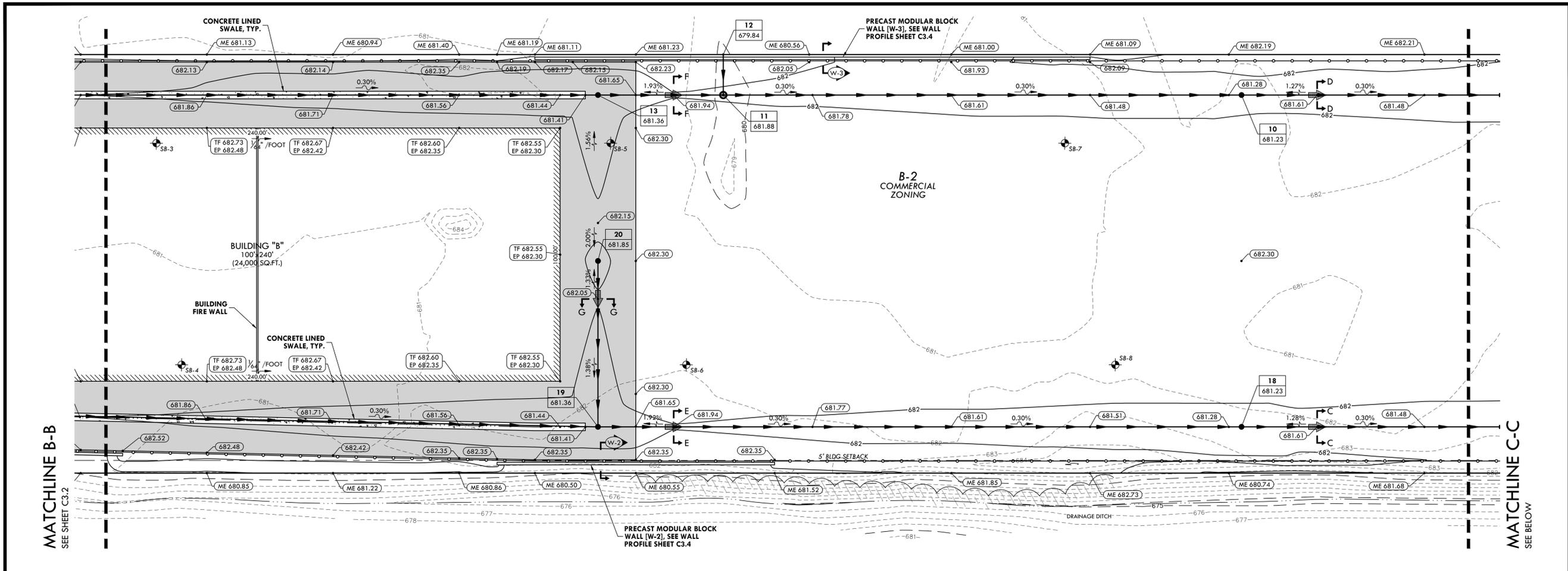


GEOMETRIC PLAN  
&  
SITE ENTRANCE PROFILE

**C3.1**

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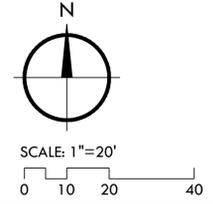
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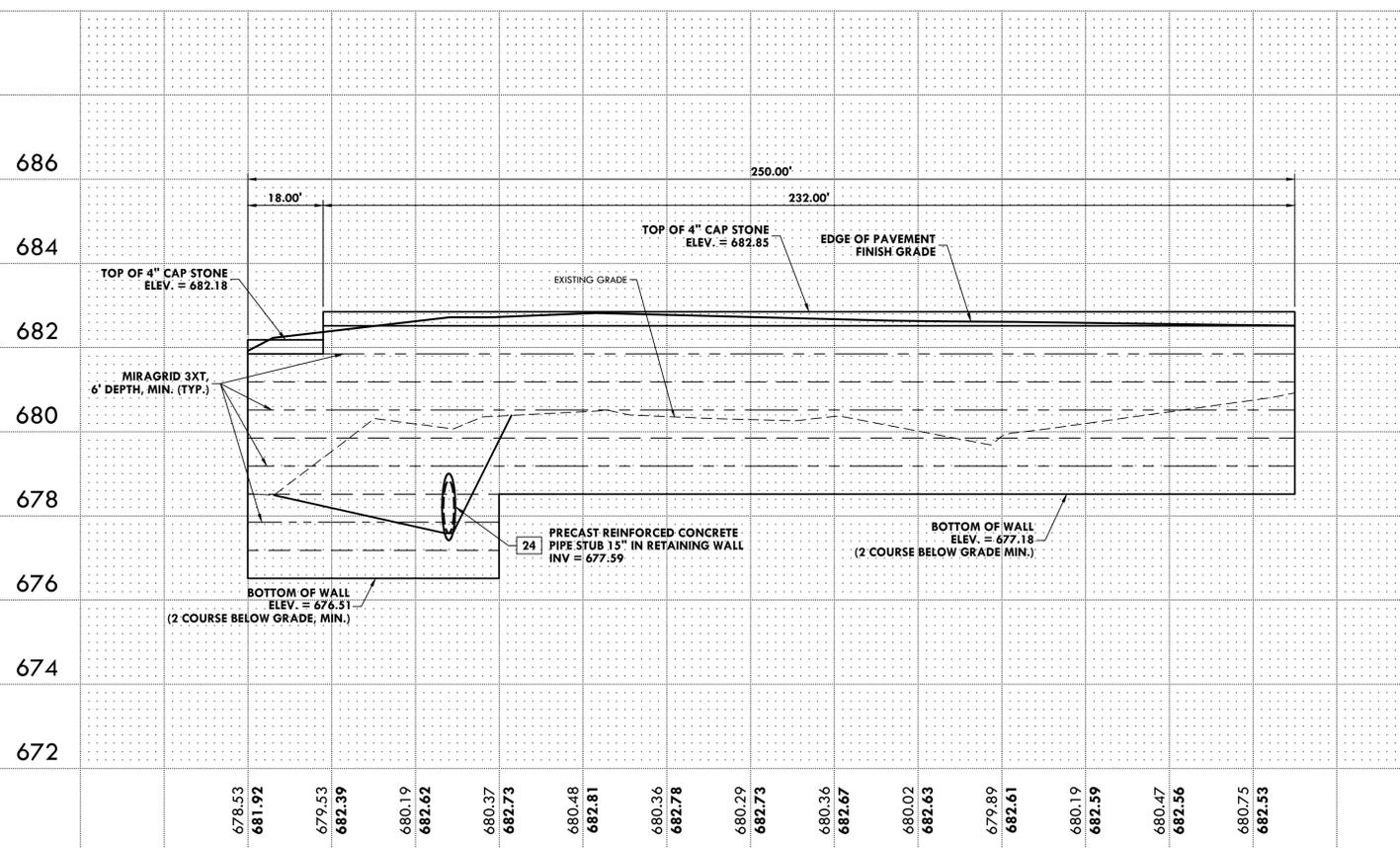
GRADING PLAN

**C3.3**

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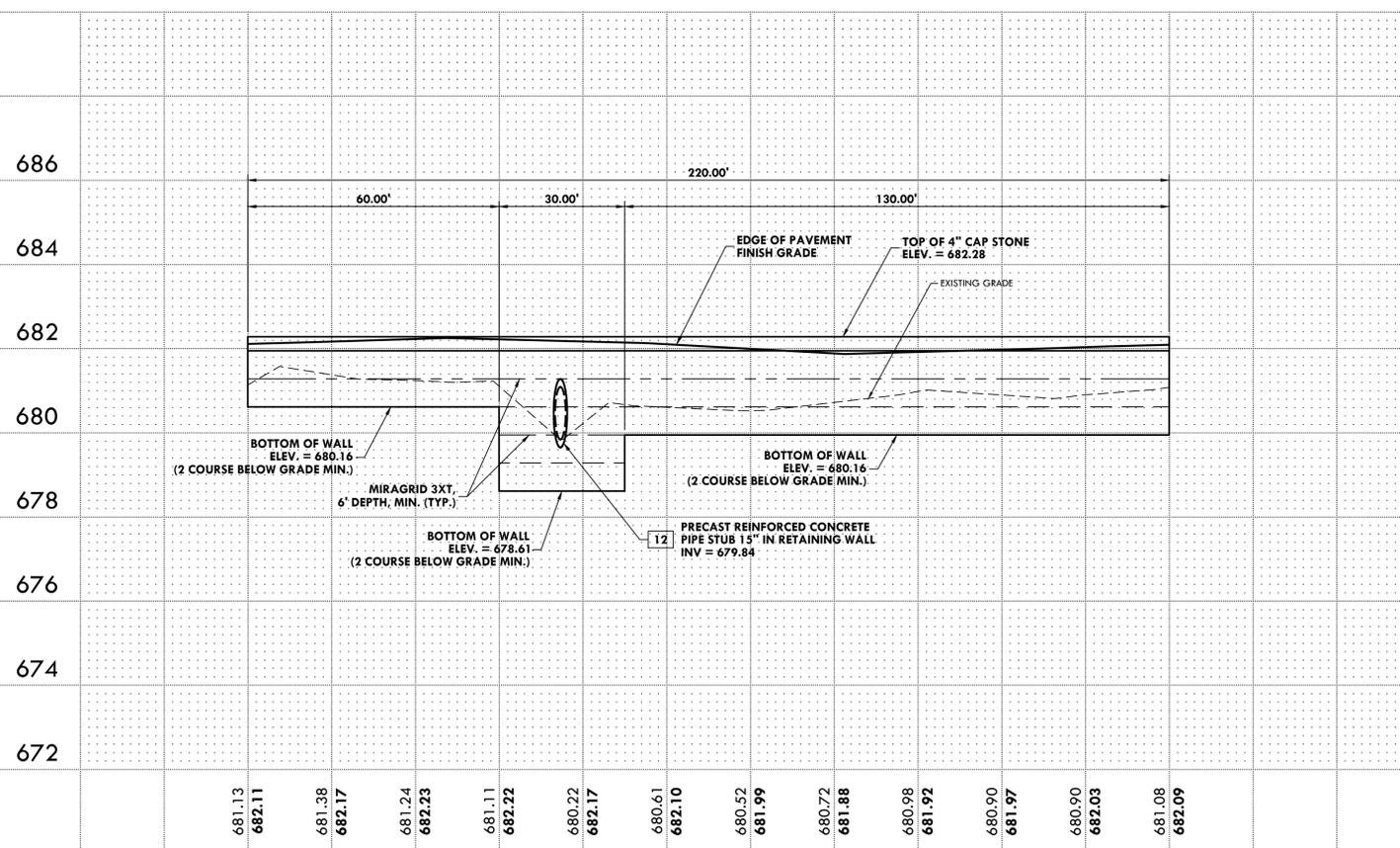
**PRECAST MODULAR BLOCK WALL - W-1 PROFILE**

HORIZONTAL SCALE: 1" = 20'  
VERTICAL SCALE: 1" = 2'



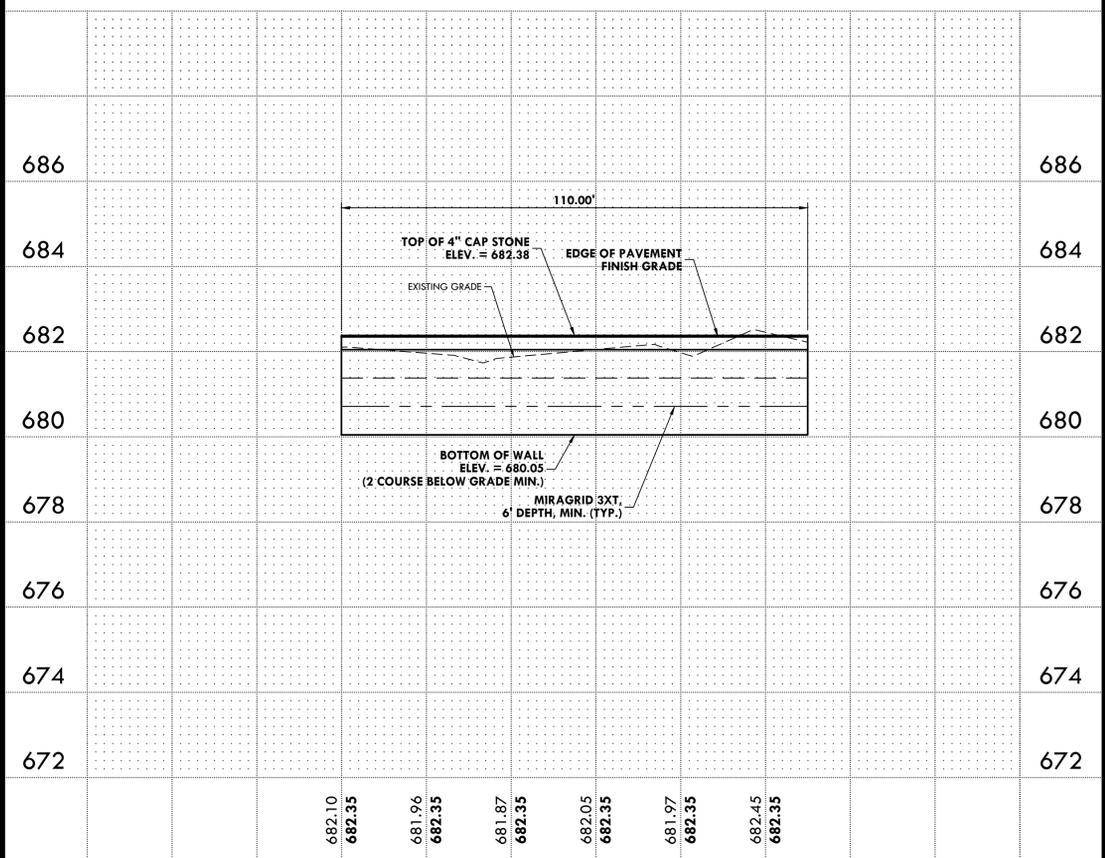
**PRECAST MODULAR BLOCK WALL - W-3 PROFILE**

HORIZONTAL SCALE: 1" = 20'  
VERTICAL SCALE: 1" = 2'



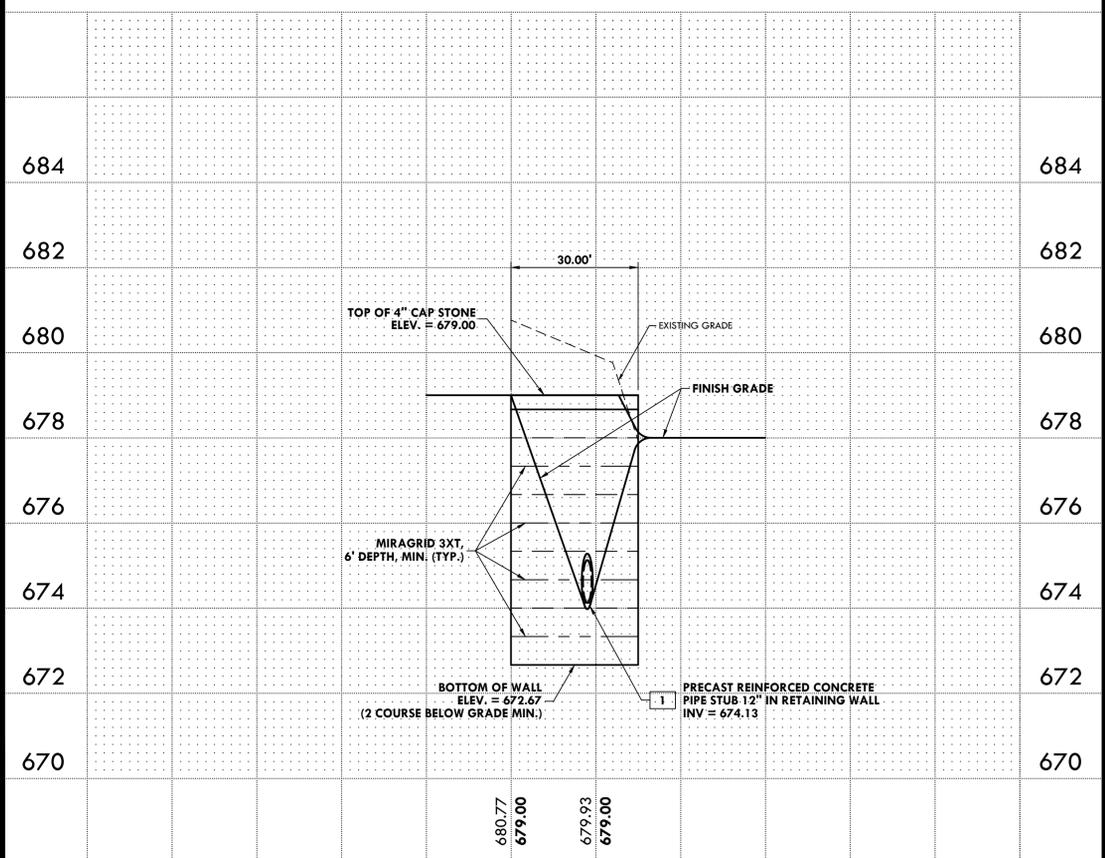
**PRECAST MODULAR BLOCK WALL - W-2 PROFILE**

HORIZONTAL SCALE: 1" = 20'  
VERTICAL SCALE: 1" = 2'



**PRECAST MODULAR BLOCK WALL - W-4 PROFILE**

HORIZONTAL SCALE: 1" = 20'  
VERTICAL SCALE: 1" = 2'



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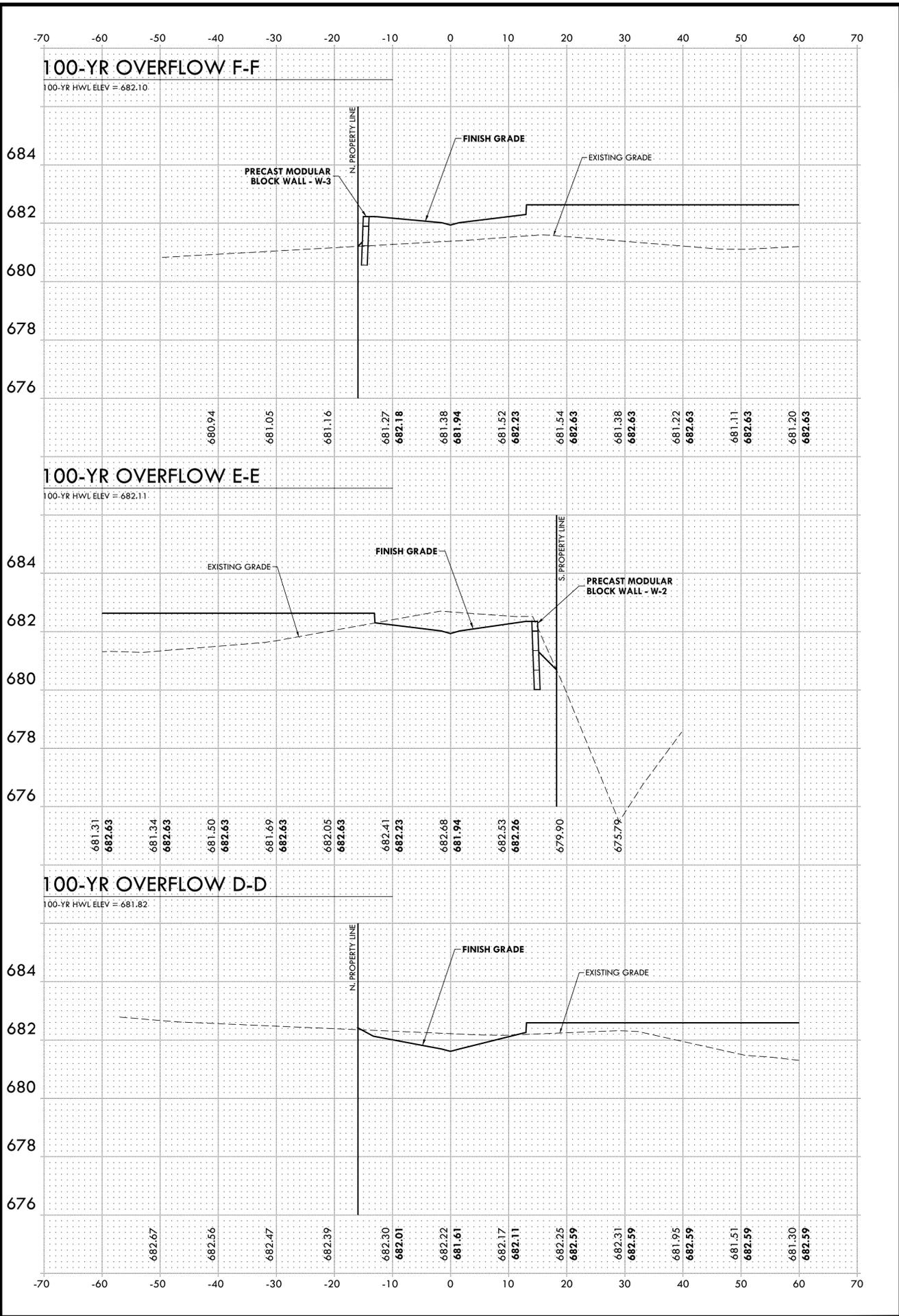
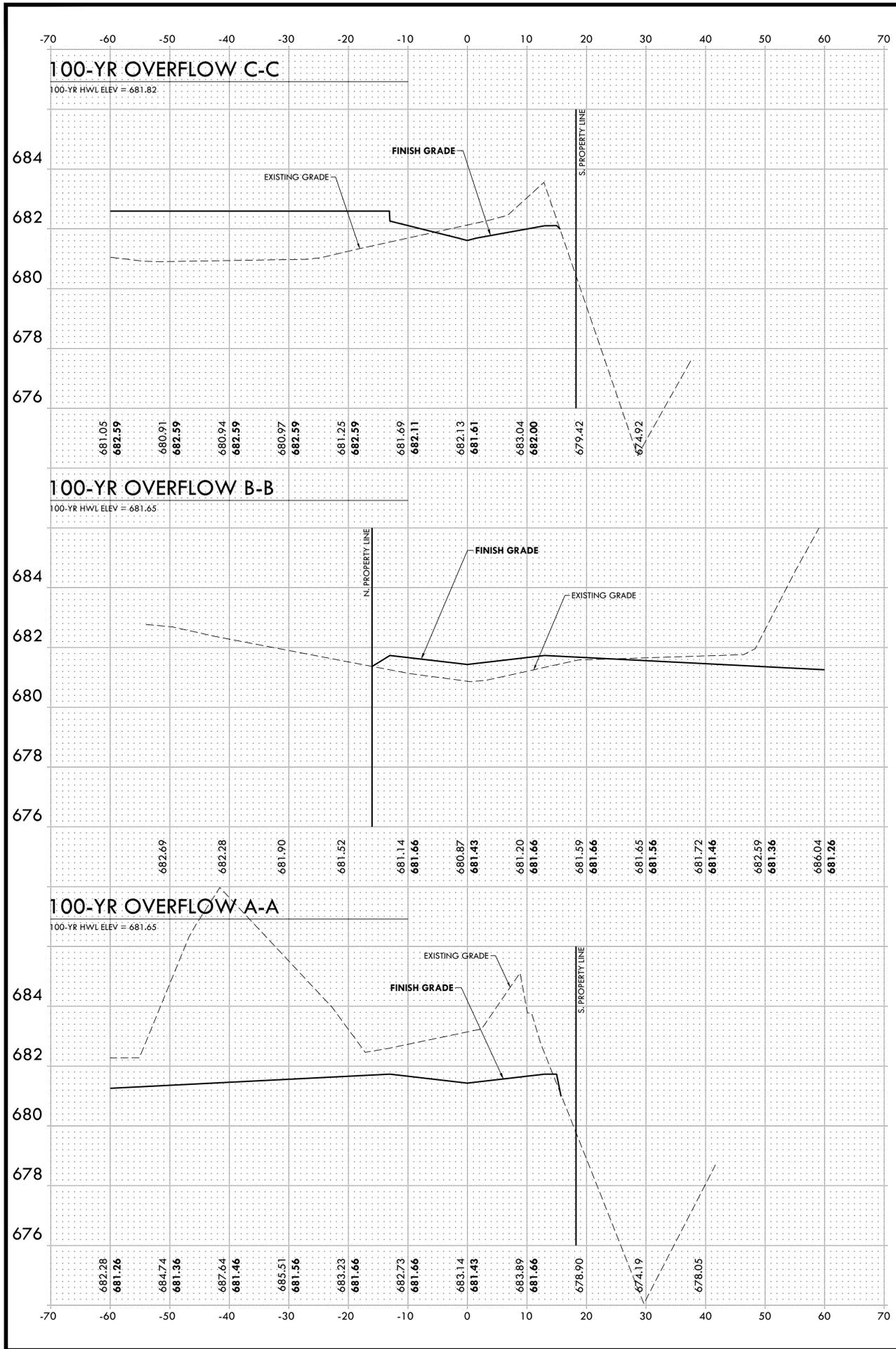
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CHECKED BY:	NAP

SCALE: AS SHOWN  
 PROFILES  
 PRECAST MODULAR BLOCK WALL

**C3.4**

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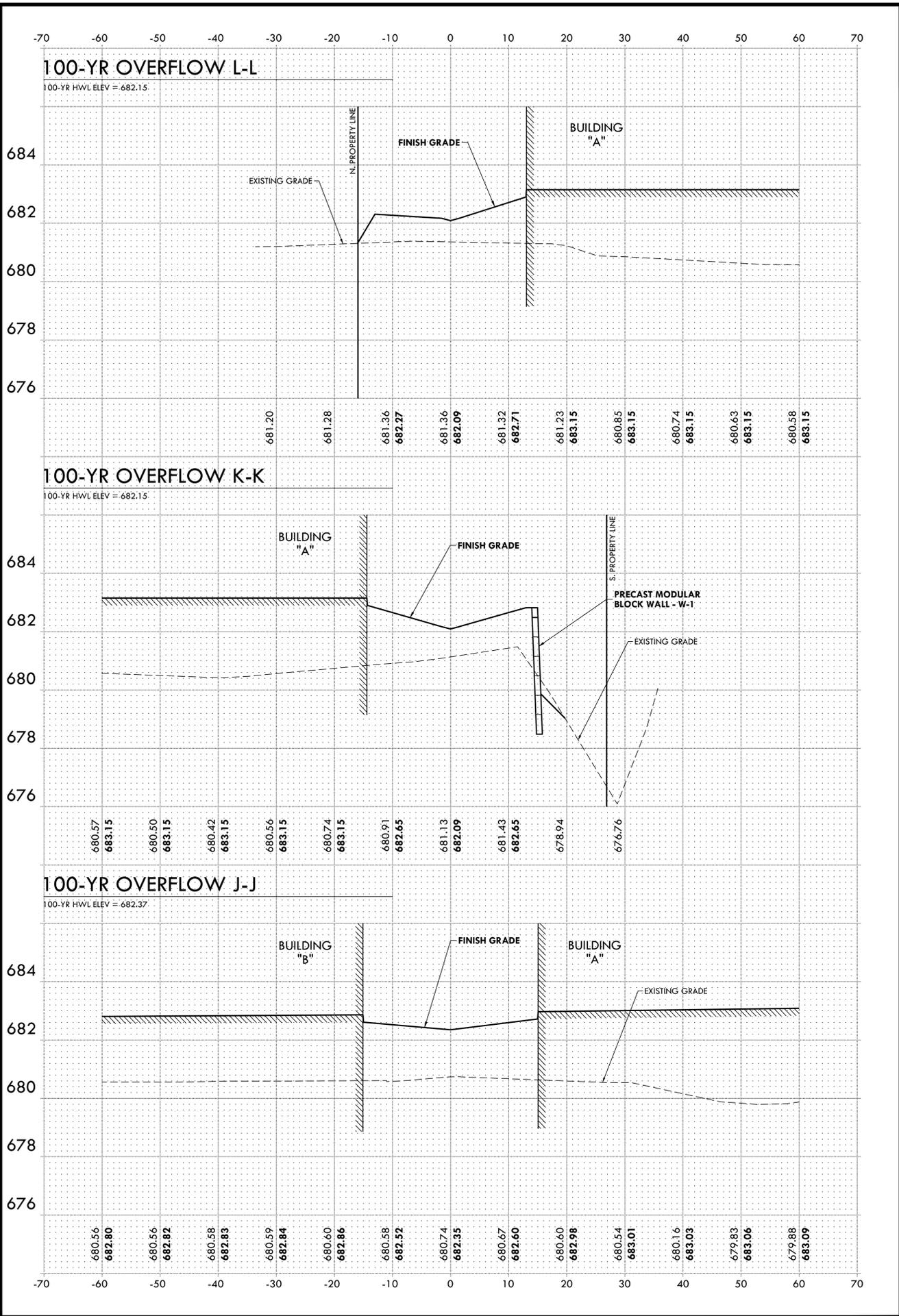
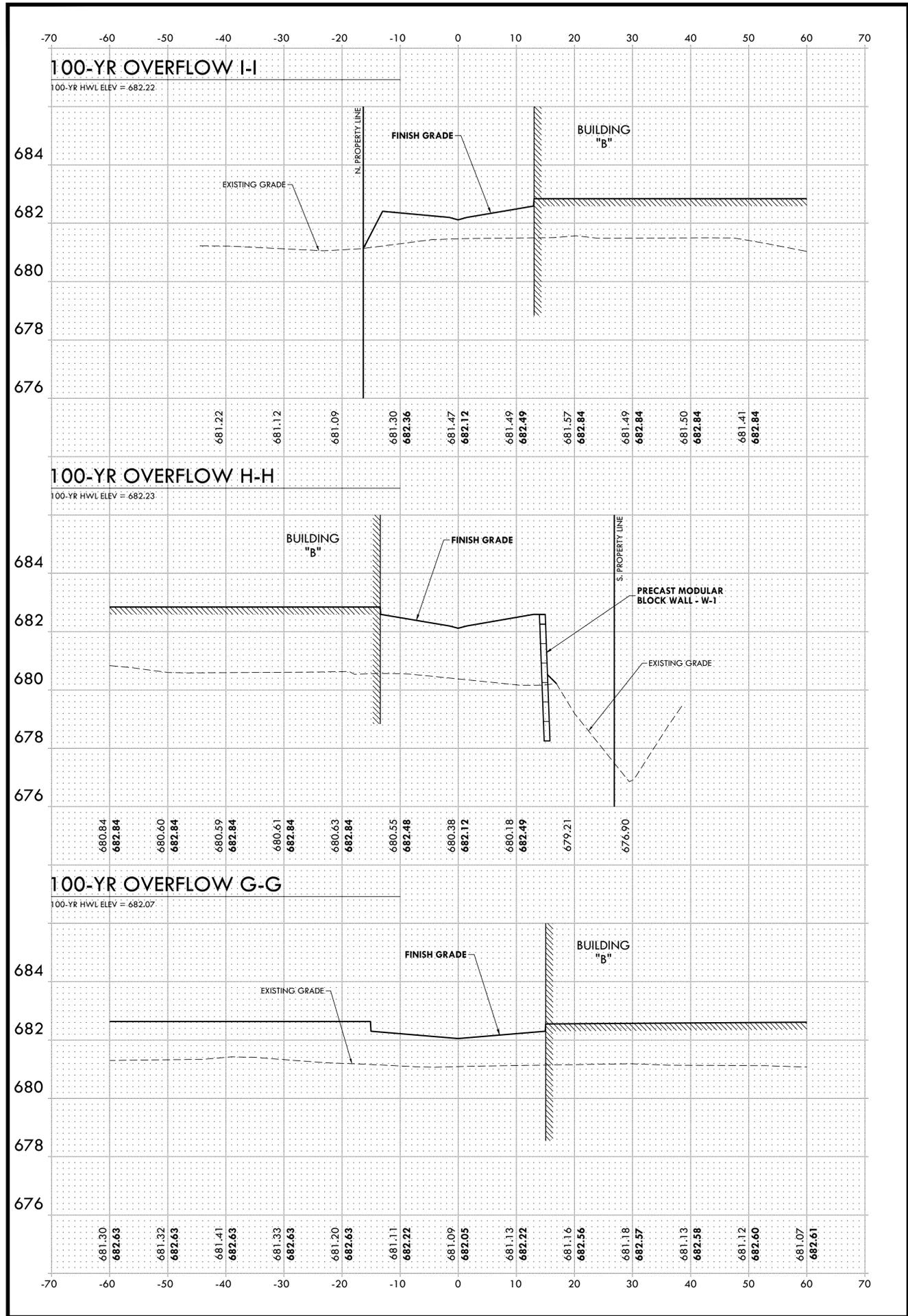
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HORIZONTAL SCALE: 1" = 10'  
 VERTICAL SCALE: 1" = 2'  
 0 5 10 20

CROSS SECTIONS  
 100-YR OVERFLOW

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HORIZONTAL SCALE: 1" = 10'  
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CROSS SECTIONS  
 100-YR OVERFLOW

**EROSION CONTROL NOTES**

- I. DESCRIPTION OF STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION
  - i. THE AREA BETWEEN THE EXISTING AND PROPOSED RIGHT-OF-WAY/TEMPORARY EASEMENT BOUNDARIES AND LIMITS OF THE PROJECT WILL BE IMPROVED AND MANAGED FOR THE PURPOSES OF CONTROLLING EROSION WITHIN THE AREA, REDUCING WATER FLOW BY TEMPORARY DIVERSION AND MINIMIZING SILTATION INTO THE CONSTRUCTION ZONE, AND ESTABLISHING VEGETATIVE COVER WHICH WILL BECOME PERMANENT VEGETATION AND ACT AS AN EROSION BARRIER.
- II. WORK AT THE BEGINNING OF CONSTRUCTION WILL CONSIST OF THE FOLLOWING:
  - i. AREAS OF EXISTING VEGETATION (WOODS AND GRASSLANDS) OUTSIDE THE PROPOSED CONSTRUCTION SLOPE LIMITS SHALL BE IDENTIFIED FOR PRESERVING AND SHALL BE PROTECTED FROM MOWING, BRUSH CUTTING, TREE REMOVAL AND OTHER ACTIVITIES WHICH WOULD BE DETRIMENTAL TO THEIR MAINTENANCE AND DEVELOPMENT.
  - ii. DEAD, DISEASED, OR UNSUITABLE VEGETATION WITHIN THE SITE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER, ALONG WITH REQUIRED TREE REMOVAL.
  - iii. AS SOON AS REASONABLE ACCESS IS AVAILABLE (SUCH AS TREES CLEARED) TO ALL LOCATIONS WHERE DITCH CHECKS AND/OR EROSION CONTROL FENCE SHALL BE INSTALLED AS CALLED OUT IN THE PLAN AND DIRECTED BY THE ENGINEER.
  - iv. BARE AND SPARSELY VEGETATED GROUND IN HIGHLY ERODABLE AREAS AS DETERMINED BY THE ENGINEER SHALL BE TEMPORARILY SEEDED AT THE BEGINNING OF CONSTRUCTION WHERE NO CONSTRUCTION ACTIVITIES ARE IMMEDIATELY EXPECTED AS STATED IN THE SPECIAL PROVISION "TEMPORARY EROSION CONTROL SEEDING."
  - v. IMMEDIATELY AFTER TREE REMOVAL IS COMPLETED IN CERTAIN AREAS WHICH ARE HIGHLY ERODABLE AREAS AS DETERMINED BY THE ENGINEER, THE AREAS SHALL BE TEMPORARILY SEEDED WHERE NO CONSTRUCTION ACTIVITIES ARE IMMEDIATELY EXPECTED AS STATED IN THE SPECIAL PROVISION "TEMPORARY EROSION CONTROL SEEDING."
  - vi. AT LOCATIONS WHERE A SIGNIFICANT AMOUNT OF WATER DRAINING INTO THE CONSTRUCTION ZONE, RIP RAP DITCH CHECKS WILL BE UTILIZED TO LOCALLY DIVERT WATER, REDUCE FLOW RATES, AND COLLECT OUTSIDE SILTATION INSIDE THE RIGHT-OF-WAY LINE. EROSION CONTROL ITEMS WILL NOT BE ALLOWED TO BE INSTALLED TO CAUSE FLOODING TO UPSTREAM PRIVATE PROPERTY WHICH COULD CAUSE CROP DAMAGES OR OTHER UNDESIRABLE CONDITIONS.
  - vii. AT LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, SEDIMENT BASINS, RIP RAP DITCH CHECKS, TEMPORARY EROSION CONTROL FENCE, OR TEMPORARY DITCH CHECKS SHALL BE USED.
- III. ESTABLISHMENT OF THESE TEMPORARY EROSION CONTROL MEASURES WILL HAVE ADDITIONAL BENEFITS TO THE PROJECT. DESIRABLE GRASS SEED WILL BECOME ESTABLISHED IN THESE AREAS AND WILL SPREAD SEEDS ONTO THE CONSTRUCTION SITE UNTIL PERMANENT SEEDING/MOWING AND OVERSEEDING CAN BE COMPLETE.
- III. A THIRD PARTY BENEFIT OF THESE FILTER AREAS IS THAT THEY WILL BEGIN TO PROVIDE A SCREEN AND BUFFER. THEY WILL HELP PROTECT THE CONSTRUCTION SITE FROM WINDS AND EXCESS SUN AND MITIGATE CONSTRUCTION NOISE AND DUST.
- IV. DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION:
  - i. DURING ROADWAY CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION SLOPE LIMITS AS OUTLINED PREVIOUSLY HEREIN SHALL BE PROTECTED FROM DAMAGING EFFECTS OF CONSTRUCTION. THE CONTRACTOR SHALL NOT USE THIS AREA FOR STAGING (EXCEPT AS DESIGNATED ON THE PLANS OR DIRECTED BY THE ENGINEER), PARKING OF VEHICLES OR CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS, OR OTHER CONSTRUCTION RELATED ACTIVITIES.
  - ii. WITHIN THE CONSTRUCTION ZONE, CRITICAL AREAS WHICH HAVE HIGH FLOWS OF WATER AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.
  - iii. TOP SOIL AND EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.
  - iv. AS THE CONTRACTOR CONSTRUCTS A PORTION OF THE ROADWAY IN A FILL SECTION, HE/SHE SHALL FOLLOW THE FOLLOWING STEPS AS DIRECTED BY THE ENGINEER:
    - v. THE CONTRACTOR SHALL IMMEDIATELY FOLLOW MAJOR EARTH MOVING OPERATIONS WITH FINAL GRADING EQUIPMENT. AFTER MAJOR EARTH SPREAD OPERATION HAS MOVED TO A NEW LOCATION, FINAL GRADING SHALL BE COMPLETED WITHIN FOURTEEN DAYS. IF GRADING IS NOT COMPLETED WITHIN FOURTEEN DAYS, ALL MAJOR EARTH MOVING OPERATIONS WILL BE STOPPED, AS DIRECTED BY THE ENGINEER, UNTIL DISTURBED AREAS ARE FINAL GRADED AND SEEDED.
  - vi. EXCAVATED AREAS AND EMBANKMENTS SHALL BE PERMANENTLY SEEDED WHEN FINAL GRADED. IF NOT, THEY SHALL BE TEMPORARILY SEEDED AS STATED IN THE SPECIAL PROVISION "TEMPORARY EROSION CONTROL SEEDING."
    - a. PLACE TEMPORARY EROSION CONTROL SYSTEMS AT LOCATIONS WHERE WATER LEAVES AND ENTERS THE CONSTRUCTION ZONE.
    - b. TEMPORARY SEED HIGHLY ERODABLE AREAS OUTSIDE THE CONSTRUCTION ZONE SLOPE LIMITS.
    - c. CONSTRUCT ROADSIDE DITCHES AND PROVIDE TEMPORARY EROSION CONTROL SYSTEMS.
    - d. TEMPORARY DIVERT WATER AROUND PROPOSED CULVERT LOCATIONS.
    - e. BUILD NECESSARY EMBANKMENT AT CULVERT LOCATIONS AND THEN EXCAVATE AND PLACE CULVERT.
    - f. CONTINUE BUILDING UP THE EMBANKMENT TO THE PROPOSED GRADE WHILE AT THE SAME TIME PLACING PERMANENT EROSION CONTROL SUCH AS RIP RAP DITCH LINING AND CONDUCT FINAL SHAPING TO THE SLOPES.

- vii. CONSTRUCTION EQUIPMENT SHALL BE STORED AND FUELED ONLY AT DESIGNATED LOCATIONS. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR POLLUTION RUN-OFF IN COMPLIANCE WITH EPA WATER QUALITY REGULATIONS. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.
- viii. THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT DAILY DURING ACTIVITIES AND WEEKLY OR AFTER LARGE RAINS DURING THE WINTER SHUTDOWN PERIOD. THIS PROJECT SHALL ADDITIONALLY BE INSPECTED BY THE CONSTRUCTION FIELD ENGINEER ON A BIWEEKLY BASIS TO DETERMINE THAT EROSION CONTROL EFFORTS ARE IN PLACE AND EFFECTIVE AND IF OTHER CONTROL WORK IS NECESSARY.
- ix. SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON SITE ON A REGULAR BASIS AS DIRECTED BY THE ENGINEER. THE COST OF MAINTENANCE WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.
- x. THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING. THE COSTS OF THIS REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE TEMPORARY EROSION CONTROL SYSTEM. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- V. DOCUMENTATION
  - i. A REPORT SUMMARIZING THE SCOPE OF INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THIS STORM WATER POLLUTION PREVENTION PLAN, AND ACTION TAKEN IN ACCORDANCE WITH SECTION 4B SHALL BE MADE AND RETAINED AS PART OF THE PLAN FOR AT LEAST THREE YEARS AFTER THE DATE OF INSPECTION. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI.G OF THE GENERAL PERMIT.
  - ii. IF ANY VIOLATION OF THE PROVISIONS OF THIS PLAN IS IDENTIFIED DURING THE CONDUCT OF THE CONSTRUCTION WORK COVERED BY THIS PLAN, THE RESIDENT ENGINEER OR RESIDENT TECHNICIAN SHALL COMPLETE AND FILE AN "INCIDENT OF NONCOMPLIANCE (ION)" REPORT FOR THE IDENTIFIED VIOLATION. THE RESIDENT ENGINEER OR RESIDENT TECHNICIAN SHALL USE FORMS PROVIDED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AND SHALL INCLUDE SPECIFIC INFORMATION ON THE NONCOMPLIANCE, ACTIONS WHICH WERE TAKEN TO PREVENT ANY FURTHER CAUSES OF NONCOMPLIANCE, AND A STATEMENT DETAILING ANY ENVIRONMENTAL IMPACT WHICH MAY HAVE RESULTED FROM THE NONCOMPLIANCE. ALL REPORTS OF NONCOMPLIANCE SHALL BE SIGNED BY A RESPONSIBLE AUTHORITY IN ACCORDANCE WITH PART VI.G. OF THE GENERAL PERMIT. THE REPORT OF NONCOMPLIANCE SHALL BE MAILED TO THE FOLLOWING ADDRESS:
 

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF WATER POLLUTION CONTROL  
COMPLIANCE ASSURANCE SECTION #19  
POST OFFICE BOX 19276  
SPRINGFIELD, IL 62794-9276
- VI. DESCRIPTION OF INTENDED SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB EARTH AND LEAD TO POSSIBLE EROSION FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE:
  - i. EXCAVATION AND FURNISHED EXCAVATION WILL BE COMPLETED AT LOCATION AS INDICATED ON THE PLANS OR DIRECTED BY THE ENGINEER.
  - ii. DRAINAGE STRUCTURES WILL BE INSTALLED BEFORE AND/OR DURING THE CONSTRUCTION OF THE EXCAVATION AND FURNISHED EXCAVATION TO ALLOW PROPER DRAINAGE IN AREA OF THE PROPOSED ROADWAY FACILITY.
  - iii. PLACEMENT, MAINTENANCE, REMOVAL AND PROPER CLEANUP OF TEMPORARY EROSION CONTROL, SUCH AS EROSION CONTROL FENCE, HAY OR STRAW BALE DITCH CHECKS, RIP RAP DITCH CHECKS, TEMPORARY SEEDING AND MULCHING.
  - iv. PLACEMENT OF PERMANENT EROSION CONTROL, SUCH AS RIP RAP DITCH LINING, FILTER FABRIC FOR USE WITH RIP RAP, SEEDING AND MULCHING.
  - v. FINAL GRADING, AND OTHER MISCELLANEOUS ITEMS. USE WITH RIP RAP, SEEDING AND MULCHING.
- VII. AREA OF DISTURBED GROUND
  - i. THE TOTAL AREA DISTURBED BY CONSTRUCTION ACTIVITIES IS APPROXIMATELY \_\_\_\_\_ ACRES.
  - ii. THE FOLLOWING PLAN WAS ESTABLISHED AND INCLUDED IN THESE PLANS TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES. THE CONTRACTOR SHALL ABIDE TO ALL REQUIREMENTS WITHIN THIS PLAN AS PART OF THE CONTRACT.
  - iii. ALL DISTURBED AREAS HAVING HIGH POTENTIAL FOR EROSION, AS DETERMINED BY THE ENGINEER, SHALL BE PERMANENTLY SEEDED AND COVERED WITH EROSION BLANKET AS SOON AS POSSIBLE.
- VIII. DESCRIPTION OF STABILIZATION PRACTICES AFTER FINAL GRADING:
  - i. TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SEEDED AND ESTABLISHED WITH A PROPER STAND.
  - ii. ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP, AND DISTURBED TURF RESEDED. TEMPORARY RIP RAP DITCH CHECKS WILL BE ALLOWED TO REMAIN IN PLACE WHERE APPROVED BY THE ENGINEER.

**CERTIFICATIONS/AGREEMENTS AND NOTIFICATION**

**CONSTRUCTION OPERATOR(S) CERTIFICATION:**

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.

NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

**SUBCONTRACTOR CERTIFICATION:**

PROJECT NUMBER: \_\_\_\_\_

PROJECT TITLE: \_\_\_\_\_

OPERATOR(S): \_\_\_\_\_

AS A SUBCONTRACTOR, YOU ARE REQUIRED TO COMPLY WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR ANY WORK THAT YOU PERFORM ON-SITE. ANY PERSON OR GROUP WHO VIOLATES ANY CONDITION OF THE SWPPP MAY BE SUBJECT TO SUBSTANTIAL PENALTIES OR LOSS OF CONTRACT. YOU ARE ENCOURAGED TO ADVISE EACH OF YOUR EMPLOYEES WORKING ON THIS PROJECT OF THE REQUIREMENTS OF THE SWPPP. A COPY OF THE SWPPP IS AVAILABLE FOR YOUR REVIEW AT THE OFFICE TRAILER. EACH SUBCONTRACTOR ENGAGED IN ACTIVITIES AT THE CONSTRUCTION SITE THAT COULD IMPACT STORMWATER MUST BE IDENTIFIED AND SIGN THE FOLLOWING CERTIFICATION STATEMENT:

I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE READ AND UNDERSTAND THE TERMS AND CONDITIONS OF THE SWPPP FOR THE ABOVE DESIGNATED PROJECT AND AGREE TO FOLLOW THE BMPs AND PRACTICES DESCRIBED IN THE SWPPP.

THIS CERTIFICATION IS HEREBY SIGNED IN REFERENCE TO THE ABOVE NAMED PROJECT:

COMPANY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE NUMBER: \_\_\_\_\_

TYPE OF CONSTRUCTION SERVICE TO BE PROVIDED: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

**PIGGUSH ENGINEERING, INC**  
  
 586 WILLIAM LATHAM DRIVE  
 SUITE 8  
 BOURBONNAIS, ILLINOIS 60914  
 P. 815.614.3447  
 F. 815.614.3735  
 IL DESIGN FIRM LICENSE No. 184.006779  
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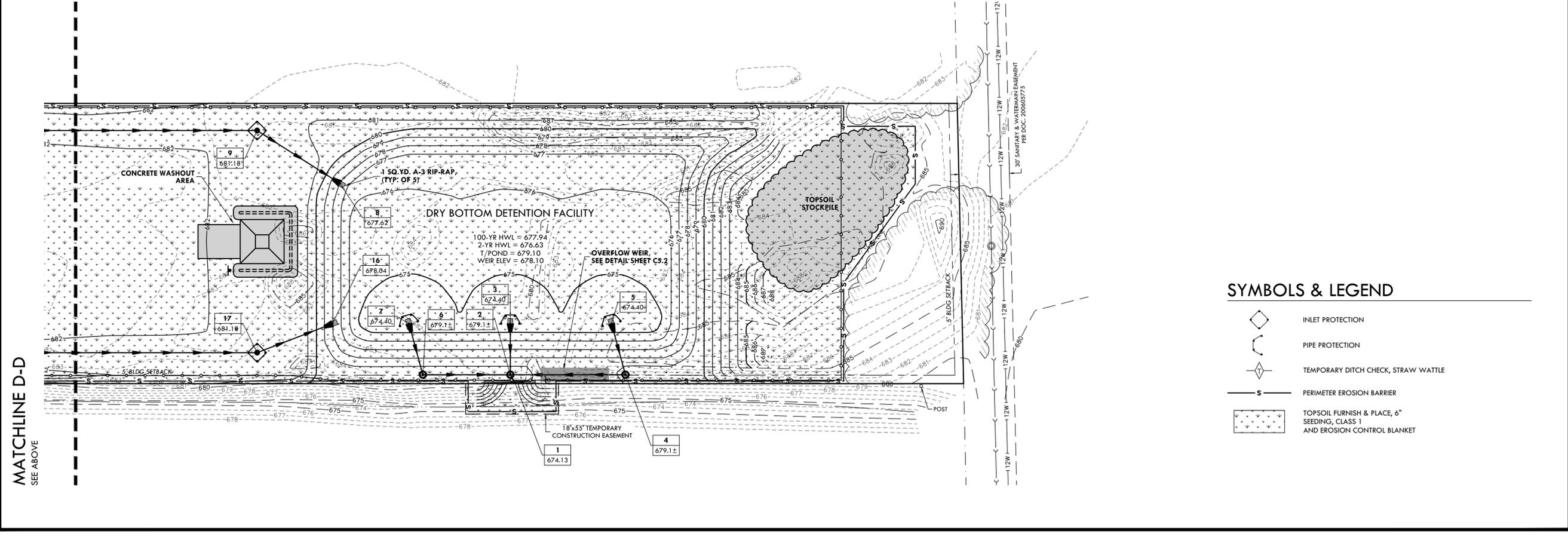
REV	ISSUED	DESCRIPTION
1	07.23.15	PER CLIENT REVIEW
2	07.28.15	ADDENDUM 2
3	08.25.15	PER VILAGE REVIEW
4	09.21.15	PER IDOT REVIEW

**STORAGE FACILITY SITE PLAN**  
 1806 NORTH ROUTE 50  
 BOURBONNAIS, IL 60914  
**GENERAL DEVELOPMENT CORPORATION**  
 OF KANKAKEE  
 3420 WOODHAVEN DRIVE  
 BOURBONNAIS, IL 60914

PROJECT: 15023.0301  
 ISSUED: 07.15.15  
 DRAWN BY: MRG  
 CHECKED BY: NAP

**EROSION CONTROL PLAN STANDARDS & SPECIFICATION**

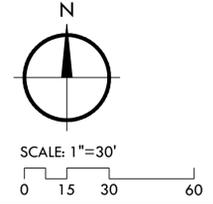
**C4.0**



MATCHLINE D-D  
SEE ABOVE

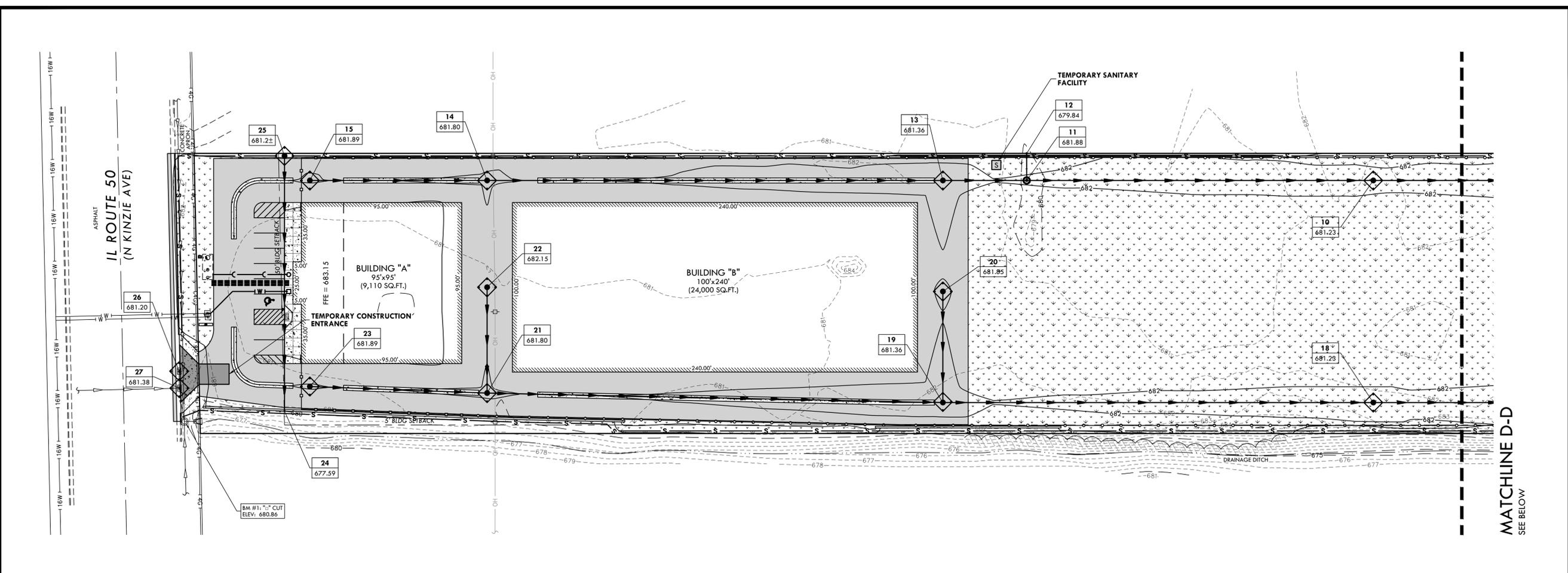
**SYMBOLS & LEGEND**

- INLET PROTECTION
- PIPE PROTECTION
- TEMPORARY DITCH CHECK, STRAW WATTLE
- PERIMETER EROSION BARRIER
- TOPSOIL FURNISH & PLACE, 6" SEEDING, CLASS 1 AND EROSION CONTROL BLANKET



EROSION CONTROL PLAN

**C4.1**



MATCHLINE D-D  
SEE BELOW

REV	ISSUED	DESCRIPTION
1	07.23.15	PER CLIENT REVIEW
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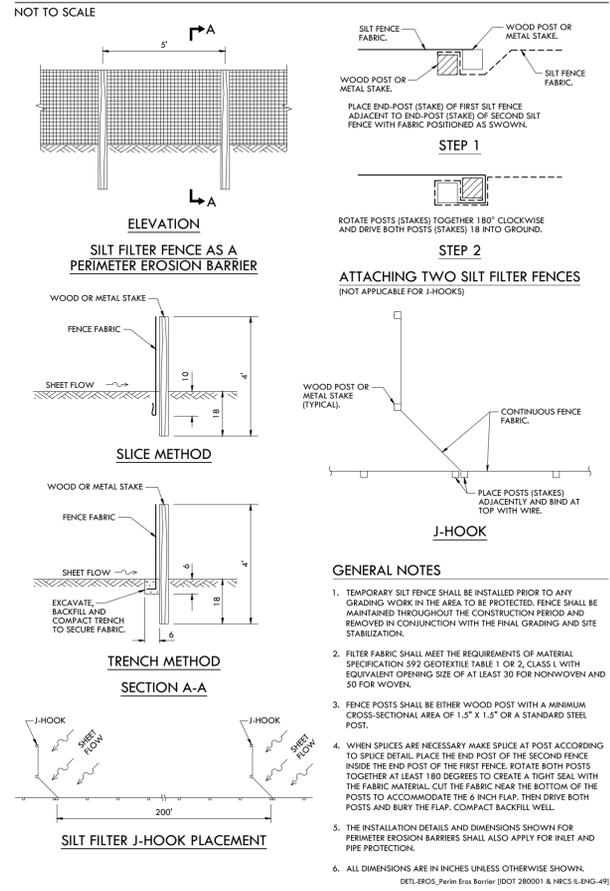
**PIGGUSH ENGINEERING, INC**  
586 WILLIAM LATHAM DRIVE  
SUITE 8  
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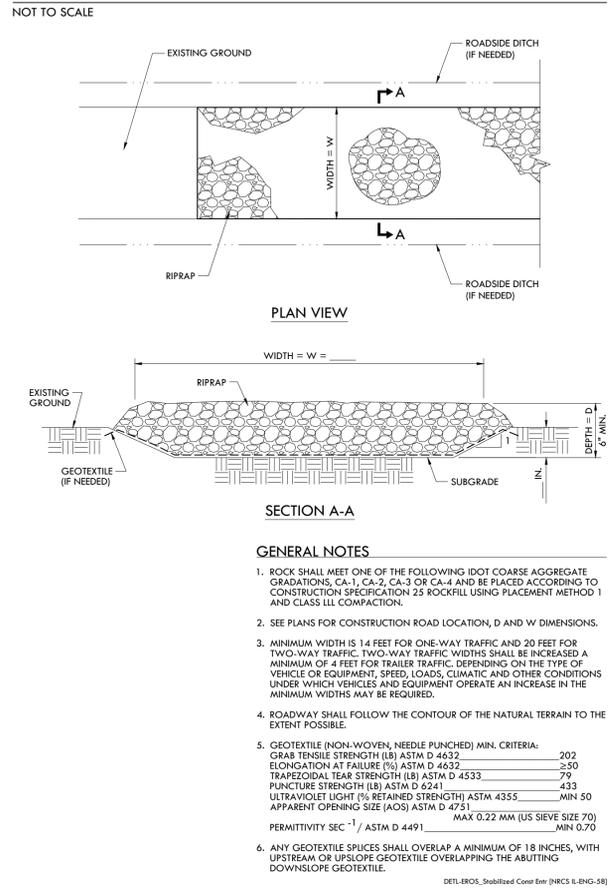
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P:\2015\15023\Drawings\15023.0301.dwg, C:\\_Ems\_9\7\15023.14.0301.dwg

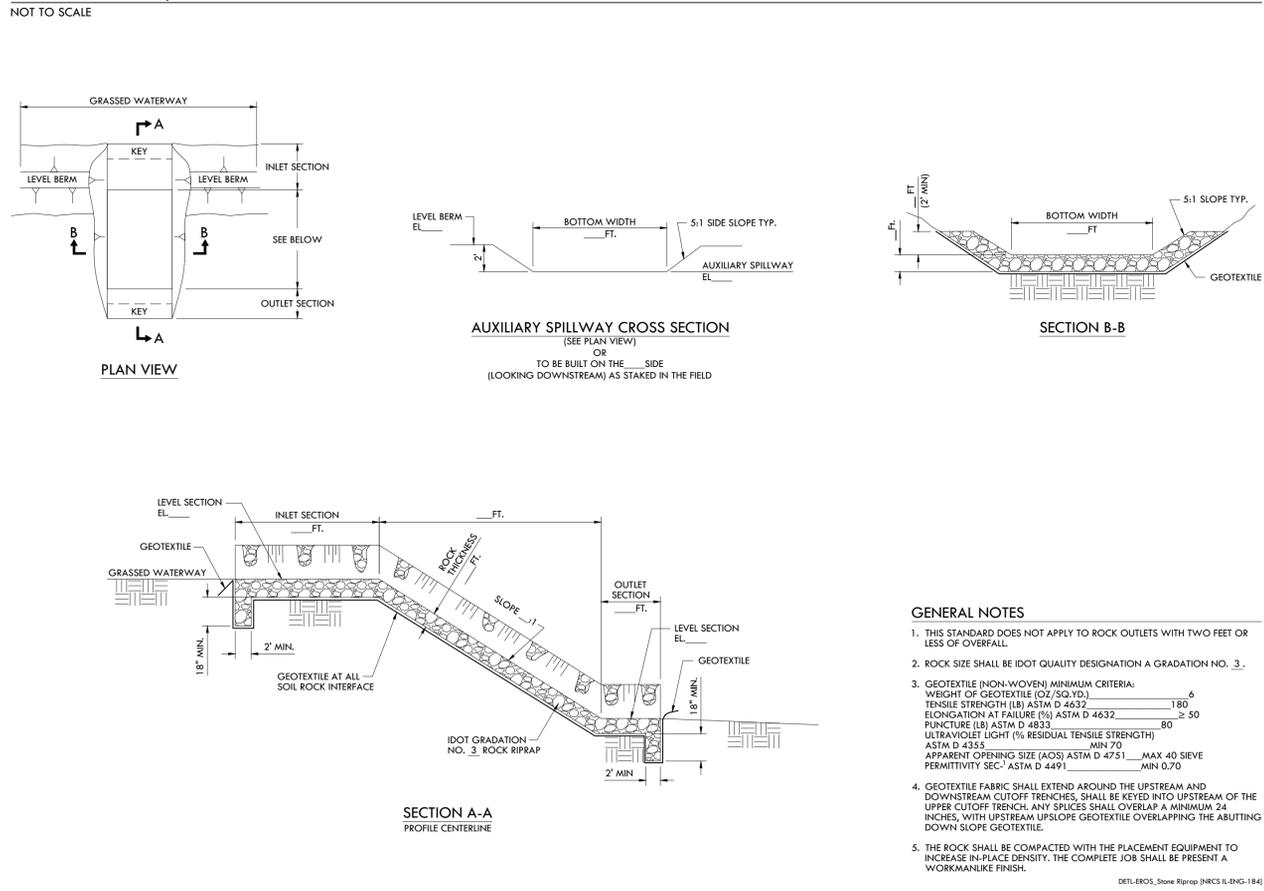
### PERIMETER EROSION BARRIER



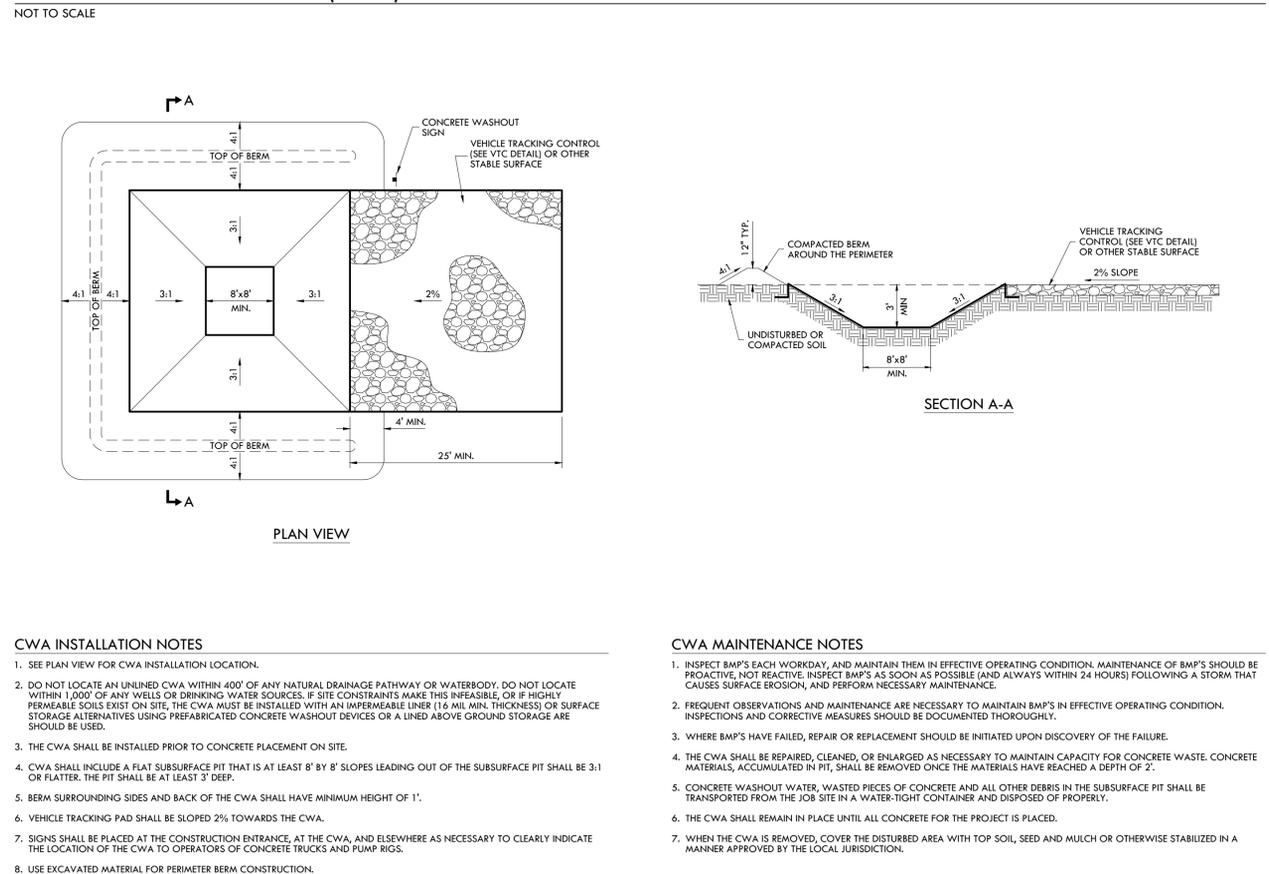
### STABILIZED CONSTRUCTION ENTRANCE



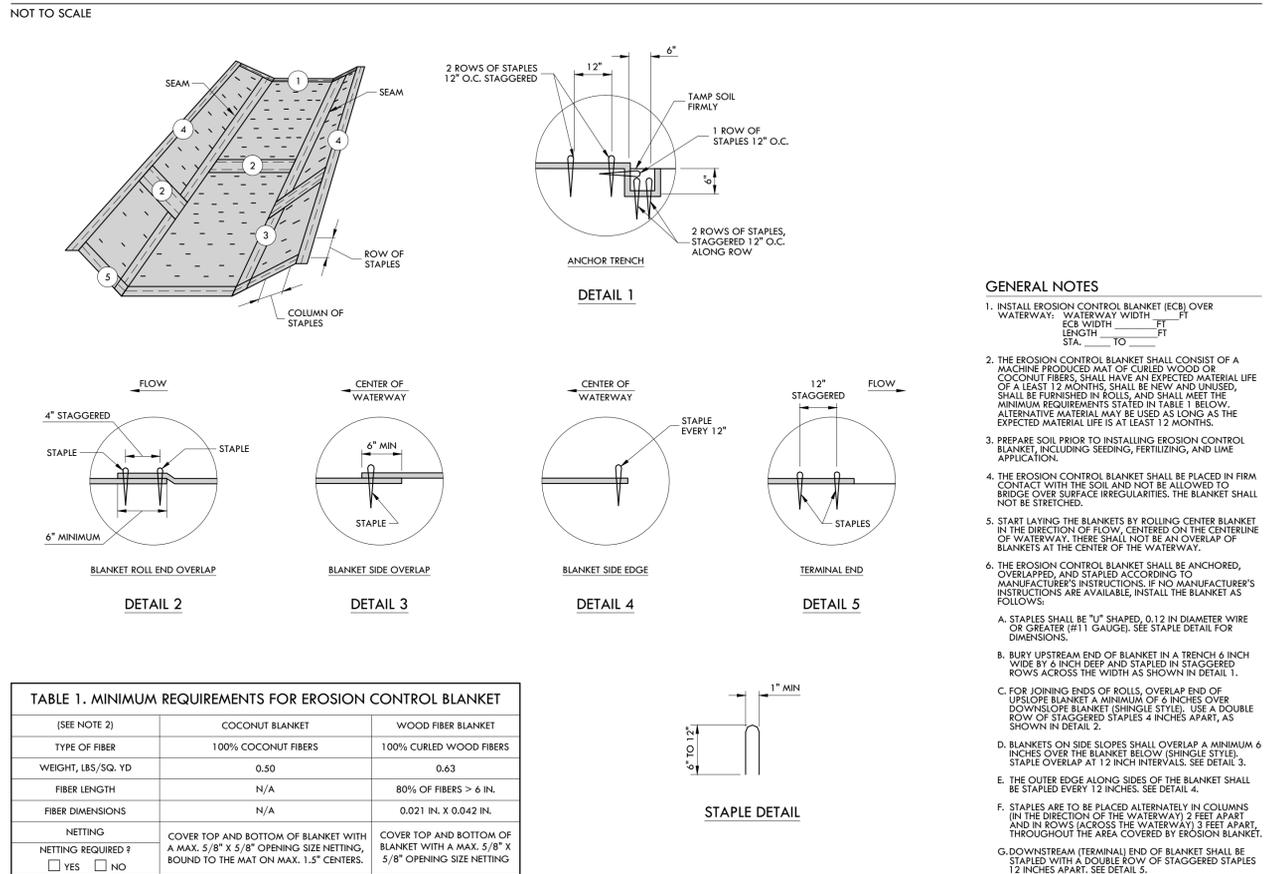
### STONE RIPRAP, CLASS A3



### CONCRETE WASHOUT AREA (CWA)



### EROSION CONTROL BLANKET



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REV	ISSUED	DESCRIPTION
1	07/23/15	PER CLIENT REVIEW
2	07/28/15	APPENDUM 2
3	08/25/15	PER VILLAGE REVIEW
4	09/21/15	PER IDOT REVIEW

PROJECT: 15023.0301  
ISSUED: 07.15.15  
DRAWN BY: MRG  
CHECKED BY: NAP



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**PIGGUSH ENGINEERING, INC**

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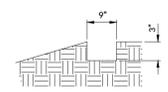
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**TEMPORARY DITCH CHECK**

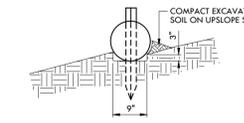
NOT TO SCALE

Ref. North American Green



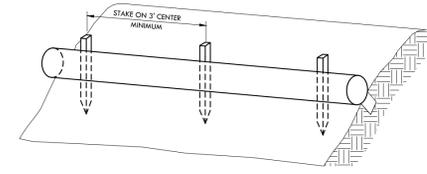
BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2-3' DEEP X 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UPSLOPE FROM THE ANCHOR TRENCH.

STEP 1



PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPSLOPE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.

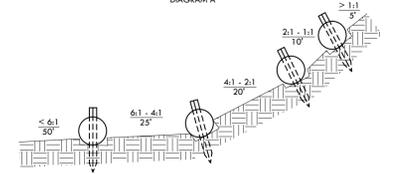
STEP 2



SECURE THE WATTLE WITH 18-24" STAKES EVERY 3-4' AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2-3" OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE.

STEP 3

DIAGRAM A



ELEVATION

TYPICAL WATTLE SPACING BASED ON SLOPE GRADIENT

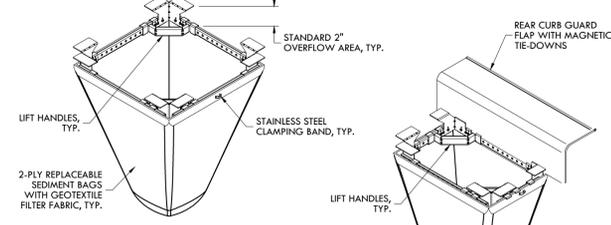
**GENERAL NOTES**

NORTH AMERICAN GREEN STRAW WATTLES ARE A BEST MANAGEMENT PRACTICE (BMP) THAT OFFERS AN EFFECTIVE AND ECONOMICAL ALTERNATIVE TO SILT FENCE AND STRAW BALES FOR SEDIMENT CONTROL AND STORM WATER RUNOFF. GUIDELINES ARE PROVIDED TO ASSIST IN DESIGN, INSTALLATION, AND STRUCTURE SPACING. THE GUIDELINES MAY REQUIRE MODIFICATION DUE TO VARIATION IN SOIL TYPE, RAINFALL INTENSITY OR DURATION, AND AMOUNT OF RUNOFF AFFECTING THE APPLICATION SITE. TO MAXIMIZE SEDIMENT CONTAINMENT WITH THE STRAW WATTLE, PLACE THE INITIAL STRUCTURE AT THE TOP/CREST OF THE SLOPE IF SIGNIFICANT RUNOFF IS EXPECTED FROM ABOVE. IF NO RUNOFF FROM ABOVE IS EXPECTED, THE INITIAL STRAW WATTLE CAN BE INSTALLED AT THE APPROPRIATE DISTANCE DOWNHILL FROM THE TOP/CREST OF THE SLOPE. THE FINAL STRUCTURE SHOULD BE INSTALLED AT OR JUST BEYOND THE BOTTOM/TOP OF THE SLOPE. WATTLES SHOULD BE INSTALLED PERPENDICULAR TO THE PRIMARY DIRECTION OF OVERLAND FLOW. STRAW WATTLES ARE A TEMPORARY SEDIMENT CONTROL DEVICE AND ARE NOT INTENDED TO REPLACE ROLLED EROSION CONTROL PRODUCTS (RECS) OR HYDRAULIC EROSION CONTROL PRODUCTS (HECPs). IF VEGETATION IS DESIRED FOR PERMANENT EROSION CONTROL, NORTH AMERICAN GREEN RECOMMENDS THAT RECS OR HECPs BE USED TO PROVIDE EFFECTIVE IMMEDIATE EROSION CONTROL UNTIL VEGETATION IS ESTABLISHED. STRAW WATTLES MAY BE USED IN CONJUNCTION WITH BLANKETS, MATS, AND MULCHES AS SUPPLEMENTAL SEDIMENT AND RUNOFF CONTROL FOR THESE APPLICATIONS. LIKE ALL SEDIMENT CONTROL DEVICES, THE EFFECTIVENESS OF THE STRAW WATTLE IS DEPENDENT ON STORAGE CAPACITY.

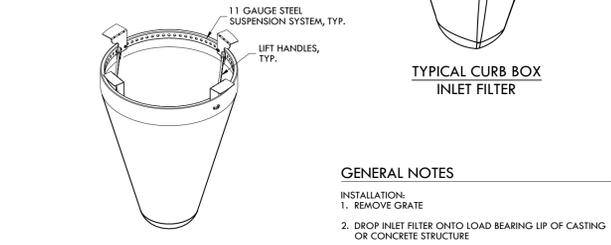
DET-EROS\_Temp Ditch Check-Straw Wattle

**FABRIC FILTER FOR INLET & PIPE PROTECTION**

NOT TO SCALE



TYPICAL FLAT/RECTANGULAR/ROLLED CURB INLET FILTER

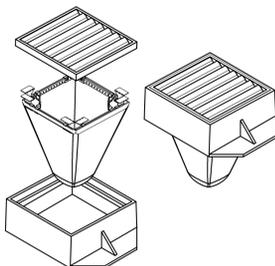


TYPICAL ROUND INLET FILTER

**GENERAL NOTES**

INSTALLATION:  
1. REMOVE GRATE  
2. DROP INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE  
3. REPLACE GRATE

IDOT INLET FILTER SPECIFICATIONS		
MATERIAL PROPERTY	TEST METHOD	VALUE (MIN AVE)
<b>&gt; NON-WOVEN GEOTEXTILE INNER FILTER BAG SPECS (2 FT<sup>2</sup> MIN VOL)</b>		
GRAB TENSILE	ASTM D 4632	100 LBS
PUNCTURE STRENGTH	ASTM D 4833	65 LBS
TRAPEZOIDAL TEAR	ASTM D 4533	45 LBS
UV RESISTANCE	ASTM D 4355	70% AT 500 HRS
APP OPEN SIZE (AOS)	ASTM D 4751	70 SIEVE (0.212 MM)
PERMITTIVITY	ASTM D 4491	2.0/SEC.
WATER FLOW RATE	ASTM D 4491	145 GPM/SQ.FT.
<b>&gt; POLYESTER OUTER REINFORCEMENT BAG SPECIFICATIONS</b>		
WEIGHT	ASTM D 3776	4.55 OZ./SQ.YD. ±15%
THICKNESS	ASTM D 1777	0.040 ±0.005
<b>&gt; FRAME CONSTRUCTION</b>		
A36 STRUCTURAL STEEL, 11 GAUGE, ZINC PLATED	ASTM A 576	TENSILE STRENGTH > 58,000 PSI YIELD STRENGTH > 36,000 PSI



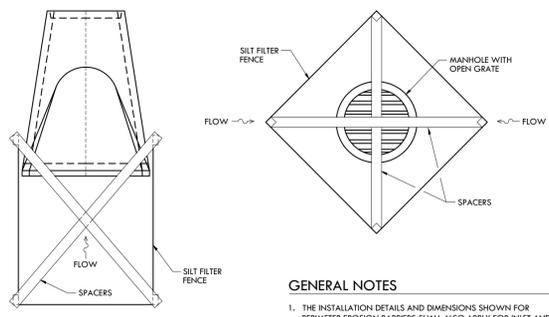
ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC., A DIVISION OF ADVANCED DRAINAGE SYSTEMS (ADS). PRODUCT: FLOKSTORM INLET FILTERS (CONTRACTOR SHALL USE EQUIVALENT PRODUCTS APPROVED BY ENGINEER.)

DET-EROS\_Fabric Filter for Inlet & Pipe Prot

**INLET AND PIPE PROTECTION**

NOT TO SCALE

Ref. IDOT Std. No. 280001



**GENERAL NOTES**

1. THE INSTALLATION DETAILS AND DIMENSIONS SHOWN FOR PERIMETER EROSION BARRIERS SHALL ALSO APPLY FOR INLET AND PIPE PROTECTION.  
2. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

DET-EROS\_Inlet & Pipe Protection (IDOT 280001)

**STORAGE FACILITY SITE PLAN**

1806 NORTH ROUTE 50  
BOURBONNAIS, IL 60914

**GENERAL DEVELOPMENT CORPORATION OF KANKAKEE**

3420 WOODHAVEN DRIVE  
BOURBONNAIS, IL 60914

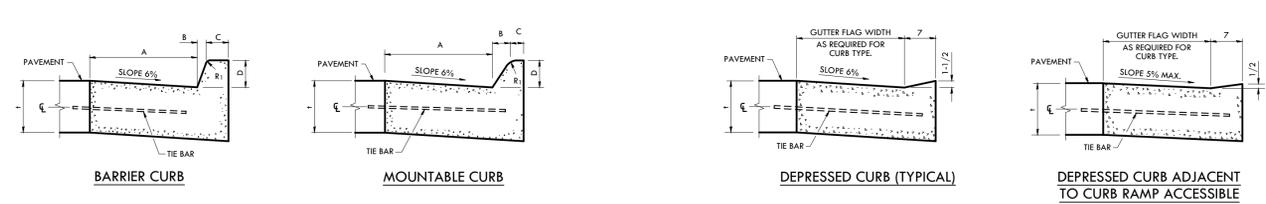
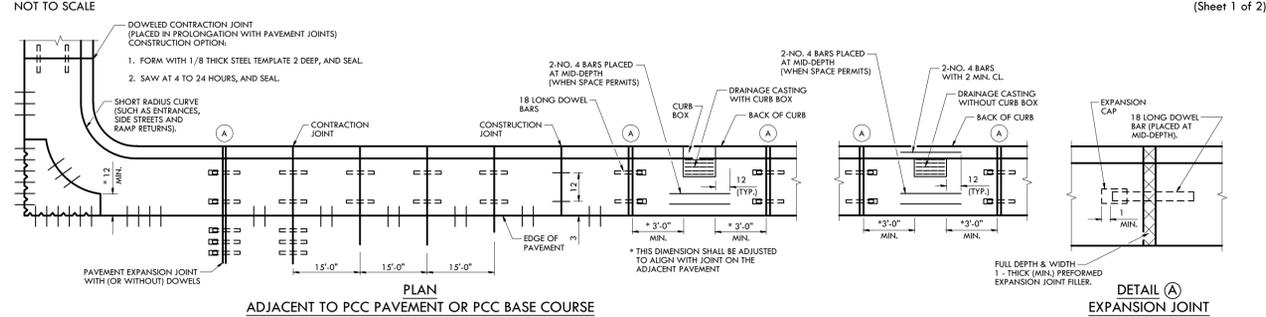
PROJECT: 15023.0301  
ISSUED: 07.15.15  
DRAWN BY: MRG  
CHECKED BY: NAP

SCALE: N/A

**EROSION CONTROL PLAN DETAILS**

**C4.3**

### CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER



TYPE	A	B	C	D	R1
B-6.12	12	1	6	6	1
B-6.18	18	1	6	6	1
B-6.24	24	1	6	6	1
B-9.12	12	2	5	9	1
B-9.18	18	2	5	9	1
B-9.24	24	2	5	9	1

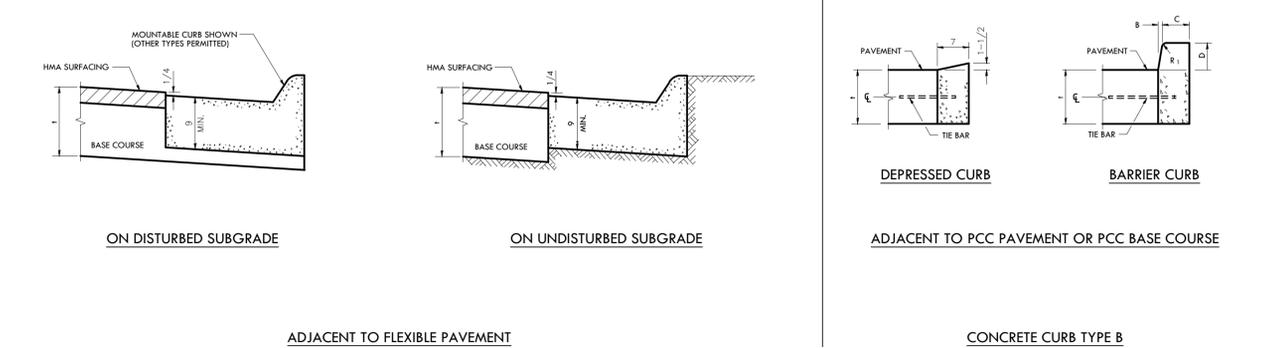
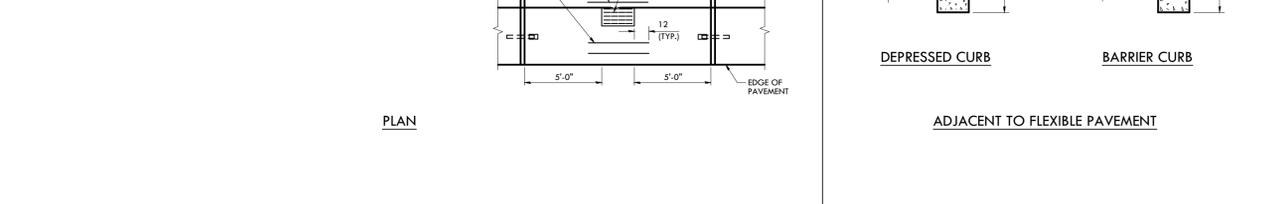
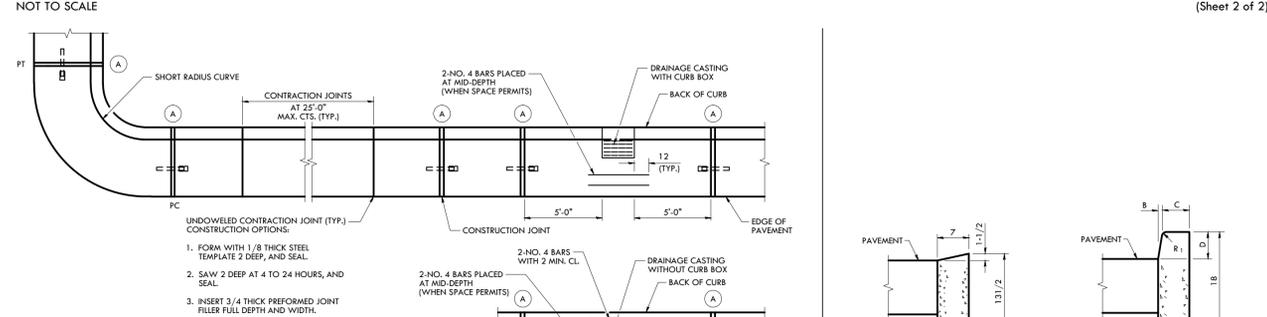
  

TYPE	A	B	C	D	R1	R2
M-2.06	6	2	4	2	3	2
M-2.12	12	2	4	2	3	2
M-4.06	6	4	3	4	3	NA
M-4.12	12	4	3	4	3	NA
M-4.18	18	4	3	4	3	NA
M-4.24	24	4	3	4	3	NA
M-6.06	6	6	2	6	2	NA
M-6.12	12	6	2	6	2	NA
M-6.18	18	6	2	6	2	NA
M-6.24	24	6	2	6	2	NA

GENERAL NOTES: THE BOTTOM SLOPE OF COMBINATION CURB AND GUTTER CONSTRUCTED ADJACENT TO PCC PAVEMENT SHALL BE THE SAME SLOPE AS THE SUBBASE OR 6% WHEN SUBBASE IS OMITTED. LONGITUDINAL JOINT TIE BARS SHALL BE NO. 6 AT 24 CENTERS IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT SHOWN ON STANDARD 420001. A MINIMUM CLEARANCE OF 2 BETWEEN THE END OF THE TIE BAR AND THE BACK OF THE CURB SHALL BE MAINTAINED. THE DOWEL BARS SHOWN IN CONTRACTION JOINTS WILL ONLY BE REQUIRED FOR MONOLITHIC CONSTRUCTION. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

Ref. IDOT Std. No. 606001 (Sheet 1 of 2)

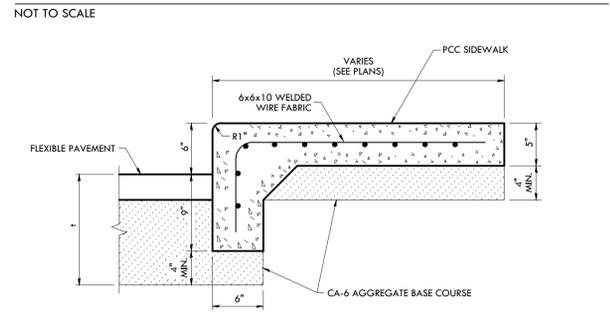
### CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER



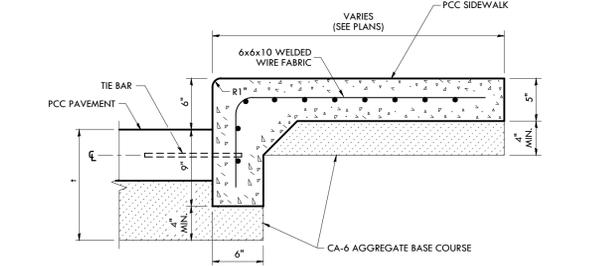
GENERAL NOTES: THE BOTTOM SLOPE OF COMBINATION CURB AND GUTTER CONSTRUCTED ADJACENT TO PCC PAVEMENT SHALL BE THE SAME SLOPE AS THE SUBBASE OR 6% WHEN SUBBASE IS OMITTED. LONGITUDINAL JOINT TIE BARS SHALL BE NO. 6 AT 24 CENTERS IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT SHOWN ON STANDARD 420001. A MINIMUM CLEARANCE OF 2 BETWEEN THE END OF THE TIE BAR AND THE BACK OF THE CURB SHALL BE MAINTAINED. THE DOWEL BARS SHOWN IN CONTRACTION JOINTS WILL ONLY BE REQUIRED FOR MONOLITHIC CONSTRUCTION. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

Ref. IDOT Std. No. 606001 (Sheet 2 of 2)

### MONOLITHIC CURB AND SIDEWALK



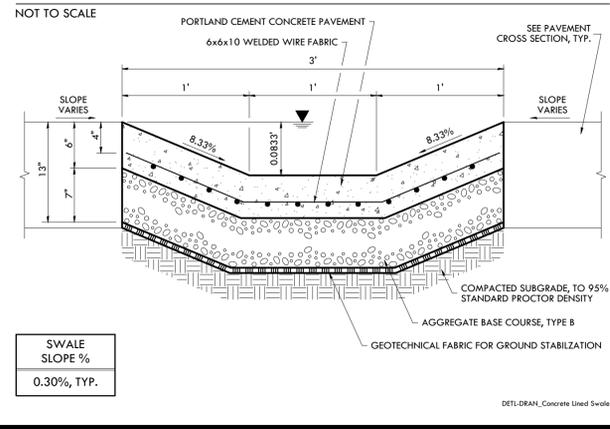
ADJACENT TO FLEXIBLE PAVEMENT



ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE

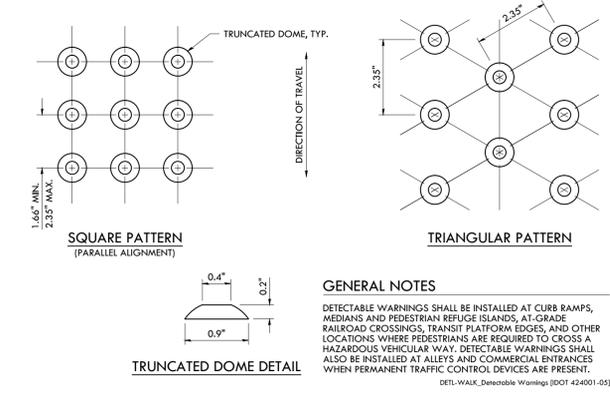
GENERAL NOTES: t = THICKNESS OF PAVEMENT SECTION. LONGITUDINAL JOINT TIE BARS SHALL BE NO. 6 AT 24 CENTERS IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT SHOWN ON IDOT STANDARD 420001. A MINIMUM CLEARANCE OF 2" BETWEEN THE END OF THE TIE BAR AND THE BACK OF THE CURB SHALL BE MAINTAINED. THE DOWEL BARS SHOWN IN CONTRACTION JOINTS WILL ONLY BE REQUIRED FOR MONOLITHIC CONSTRUCTION. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

### CONCRETE LINED SWALE CROSS SECTION



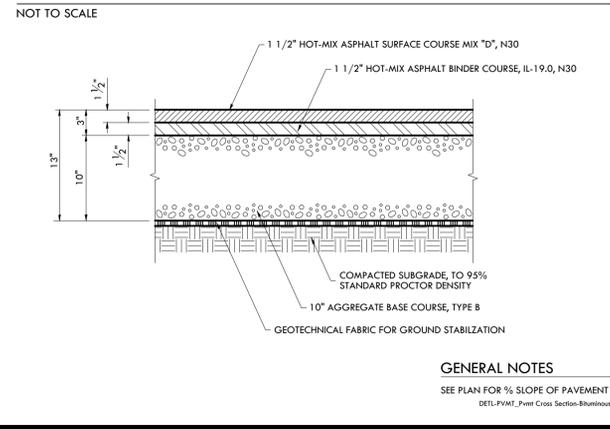
SWALE SLOPE % 0.30%, TYP.

### DETECTABLE WARNINGS



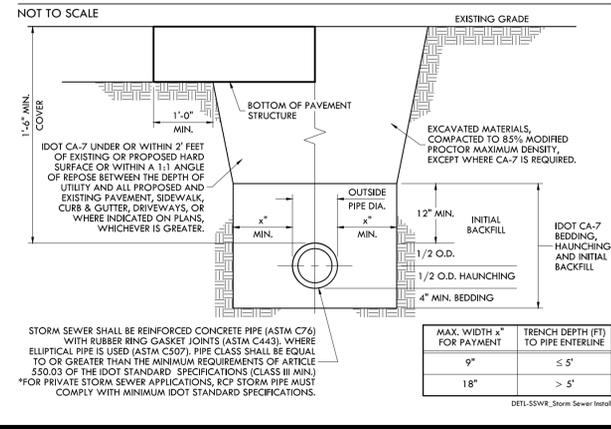
GENERAL NOTES: DETECTABLE WARNINGS SHALL BE INSTALLED AT CURB RAMPS, MEDIANS AND PEDESTRIAN REFUGE ISLANDS, AT-GRADE RAILROAD CROSSINGS, TRANSIT PLATFORM EDGES, AND OTHER LOCATIONS WHERE PEDESTRIANS ARE REQUIRED TO CROSS A HAZARDOUS VEHICULAR WAY. DETECTABLE WARNINGS SHALL ALSO BE INSTALLED AT ALLEYS AND COMMERCIAL ENTRANCES WHEN PERMANENT TRAFFIC CONTROL DEVICES ARE PRESENT.

### BITUMINOUS PAVEMENT CROSS SECTION



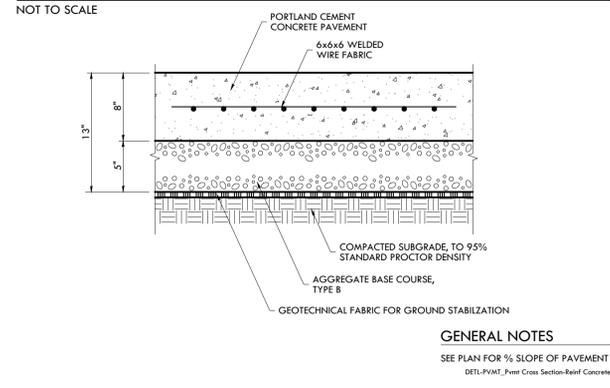
GENERAL NOTES: SEE PLAN FOR % SLOPE OF PAVEMENT

### STORM SEWER INSTALLATION



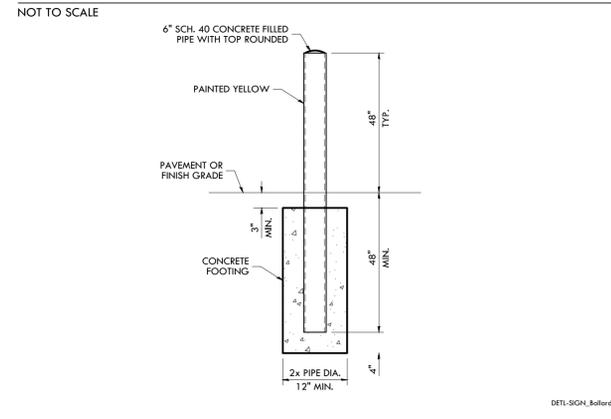
STORM SEWER SHALL BE REINFORCED CONCRETE PIPE (ASTM C76) WITH RUBBER RING GASKET JOINTS (ASTM C443). WHERE ELLIPTICAL PIPE IS USED (ASTM C507), PIPE CLASS SHALL BE EQUAL TO OR GREATER THAN THE MINIMUM REQUIREMENTS OF ARTICLE 550.03 OF THE IDOT STANDARD SPECIFICATIONS (CLASS III MIN.) \*FOR PRIVATE STORM SEWER APPLICATIONS, RCP STORM PIPE MUST COMPLY WITH MINIMUM IDOT STANDARD SPECIFICATIONS.

### REINFORCED CONCRETE PAVEMENT CROSS SECTION



GENERAL NOTES: SEE PLAN FOR % SLOPE OF PAVEMENT

### PIPE BOLLARD



DETAIL: SIGN\_Bollard

**PIGGUSH ENGINEERING, INC**  
 586 WILLIAM LATHAM DRIVE  
 SUITE 8  
 BOURBONNAIS, ILLINOIS 60914  
 P. 815.614.3447  
 F. 815.614.3735  
 IL DESIGN FIRM LICENSE NO. 184.006779  
 www.piggusheng.com

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REV	ISSUED	DESCRIPTION
1	07/23/15	PER CLIENT REVIEW
2	07/28/15	APPENDUM 2
3	08/25/15	PER VILLAGE REVIEW
4	09/21/15	PER IDOT REVIEW

**STORAGE FACILITY SITE PLAN**  
 1806 NORTH ROUTE 50  
 BOURBONNAIS, IL 60914  
**GENERAL DEVELOPMENT CORPORATION OF KANKAKEE**  
 3420 WOODHAVEN DRIVE  
 BOURBONNAIS, IL 60914

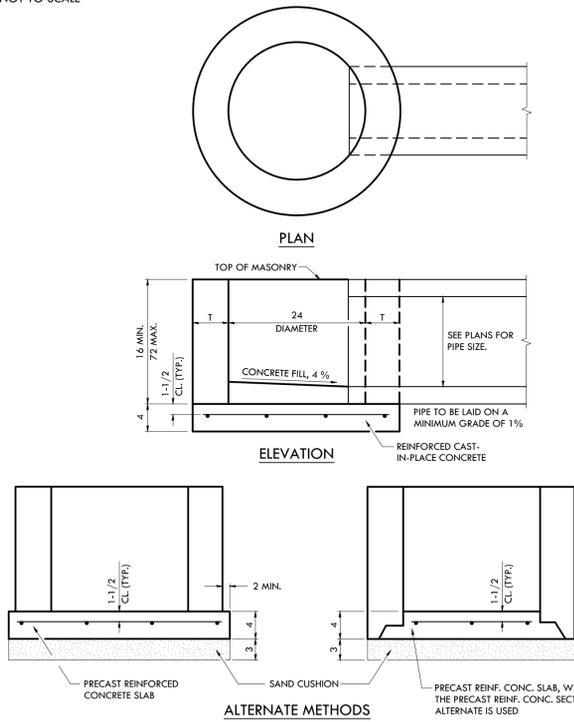
PROJECT: 15023.0301  
 ISSUED: 07.15.15  
 DRAWN BY: MRG  
 CHECKED BY: NAP

SCALE: N/A  
 SITE DETAILS  
**C5.0**

P:\2015\15023\Drawings\15023.0301.dwg, C5.0\_Details, 9/21/2015 2:05:58 PM

**INLET - TYPE A**  
NOT TO SCALE

Ref. IDOT Std. No. 602301

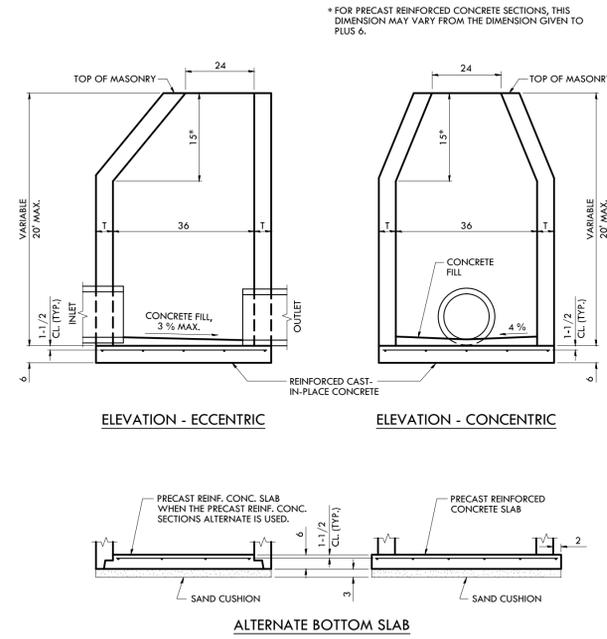


ALTERNATE MATERIALS FOR WALLS	T
CAST-IN-PLACE CONCRETE	6
CONCRETE MASONRY UNIT	5
PRECAST REINFORCED CONCRETE SECTION	3

**GENERAL NOTES**  
BOTTOM SLABS SHALL BE REINFORCED WITH A MINIMUM OF 0.24 SQ. IN./FT. IN BOTH DIRECTIONS WITH A MAXIMUM SPACING OF 10.  
BOTTOM SLABS MAY BE CONNECTED TO THE RISER AS DETERMINED BY THE FABRICATOR; HOWEVER, ONLY A SINGLE ROW OF REINFORCEMENT AROUND THE PERIMETER MAY BE UTILIZED.  
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

**INLET - TYPE B**  
NOT TO SCALE

Ref. IDOT Std. No. 602306

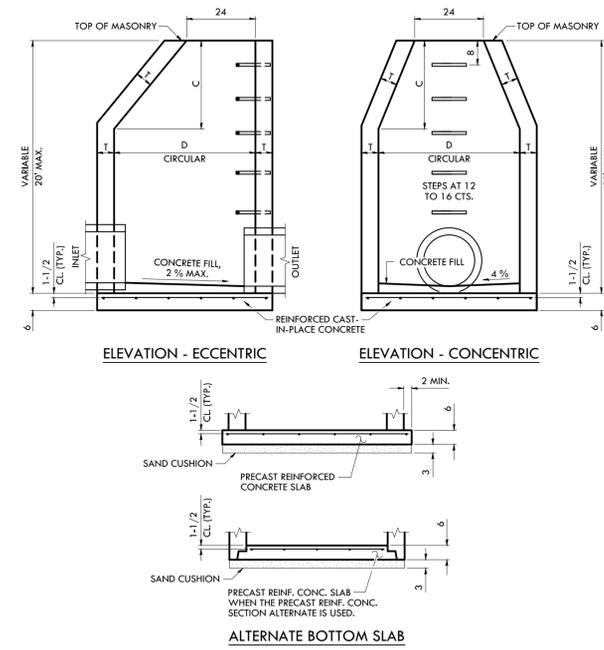


ALTERNATE MATERIALS FOR WALLS	T (MIN.)
CONCRETE MASONRY UNIT	5
PRECAST REINFORCED CONCRETE SECTION	3
CAST-IN-PLACE CONCRETE	6

**GENERAL NOTES**  
BOTTOM SLABS SHALL BE REINFORCED WITH A MINIMUM OF 0.20 SQ. IN./FT. IN BOTH DIRECTIONS WITH A MAXIMUM SPACING OF 12.  
BOTTOM SLABS MAY BE CONNECTED TO THE RISER AS DETERMINED BY THE FABRICATOR; HOWEVER, ONLY A SINGLE ROW OF REINFORCEMENT AROUND THE PERIMETER MAY BE UTILIZED.  
SEE STANDARD 602601 FOR OPTIONAL PRECAST REINFORCED CONCRETE FLAT SLAB TOP.  
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

**MANHOLE TYPE A**  
NOT TO SCALE

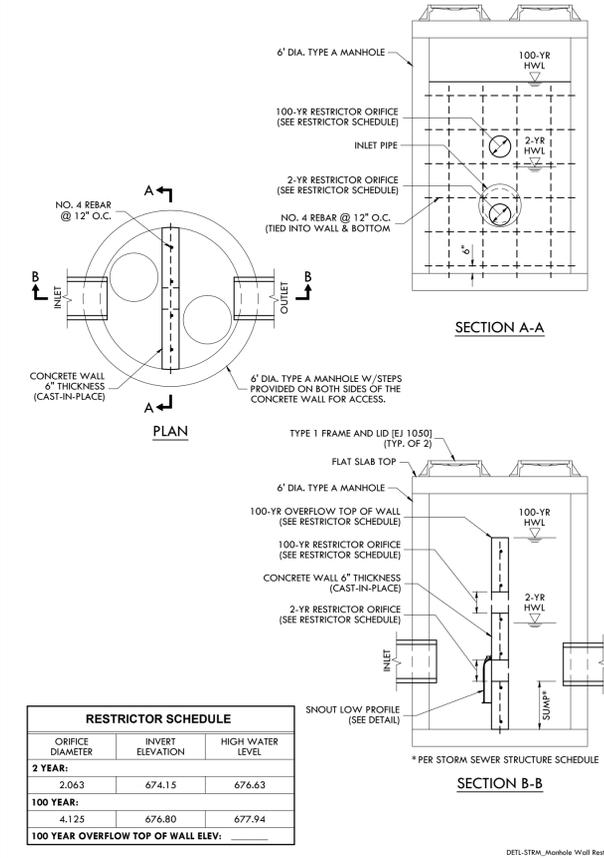
Ref. IDOT Standard No. 602401



ALTERNATE MATERIALS FOR WALLS	D	C* (MIN.)	T (MIN.)
CONCRETE MASONRY UNIT	4'-0"	30	5
PRECAST REINFORCED CONCRETE SECTION	4'-0"	30	4
CAST-IN-PLACE CONCRETE	4'-0"	30	6

**GENERAL NOTES**  
BOTTOM SLABS SHALL BE REINFORCED WITH A MINIMUM OF 0.31 SQ. IN./FT. IN BOTH DIRECTIONS WITH A MAXIMUM SPACING OF 12.  
BOTTOM SLABS MAY BE CONNECTED TO THE RISER AS DETERMINED BY THE FABRICATOR; HOWEVER, ONLY A SINGLE ROW OF REINFORCEMENT AROUND THE PERIMETER MAY BE UTILIZED.  
SEE STANDARD 602701 FOR DETAILS OF STEPS.  
SEE STANDARD 602601 FOR OPTIONAL PRECAST REINFORCED CONCRETE FLAT SLAB TOP.  
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

**MANHOLE WALL RESTRICTOR**  
NOT TO SCALE



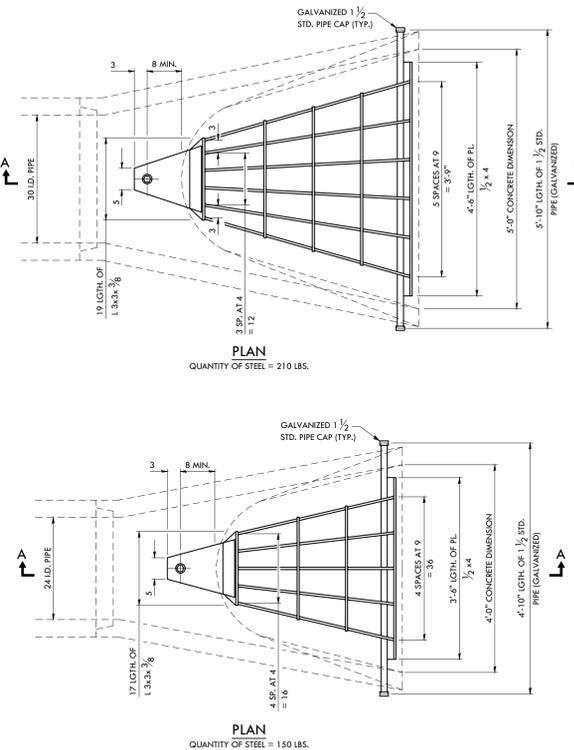
RESTRICTOR SCHEDULE		
ORIFICE DIAMETER	INVERT ELEVATION	HIGH WATER LEVEL
2 YEAR:	2.063	674.15
100 YEAR:	4.125	676.80
100 YEAR OVERFLOW TOP OF WALL ELEV:	677.94	

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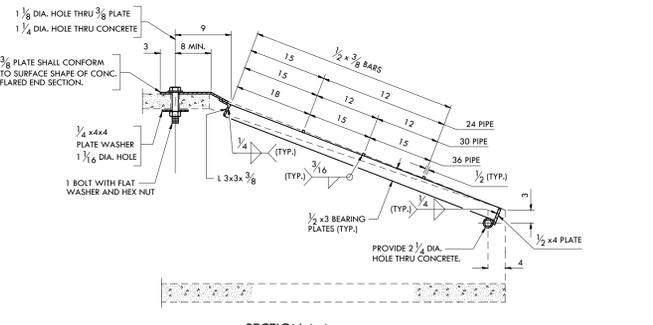
REV	ISSUED	DESCRIPTION
1	07/23/15	PER CLIENT REVIEW
2	07/28/15	ADDENDUM 2
3	08/25/15	PER VILLAGE REVIEW
4	09/21/15	PER IDOT REVIEW

**GRATING FOR CONCRETE FLARED END SECTION**  
NOT TO SCALE

Ref. IDOT Std. No. 542311-03



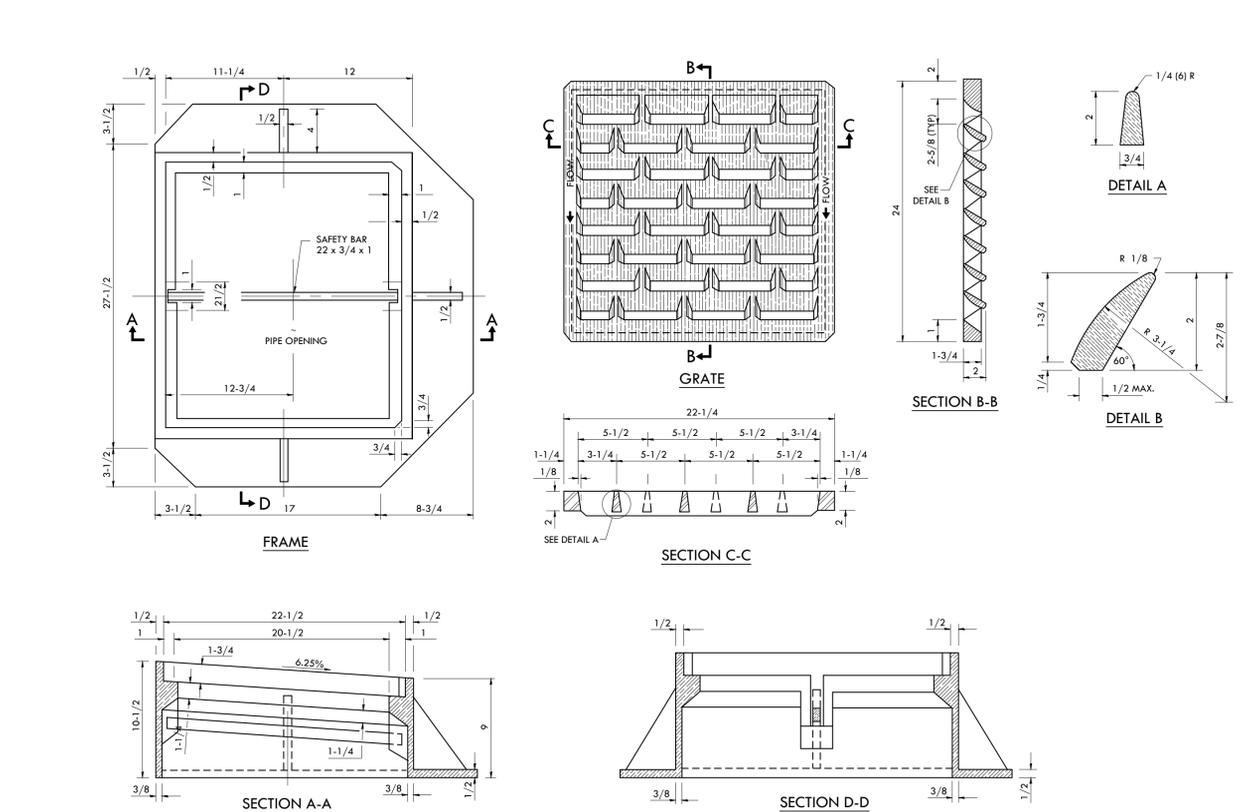
QUANTITY OF STEEL	T
210 LBS.	



**GENERAL NOTES**  
GRATING DETAILS SHOWN ARE INTENDED FOR USE WITH PARTICULAR SIZES OF PRECAST REINFORCED CONCRETE FLARED END SECTIONS AS SHOWN ON STANDARDS 542301 AND 542306.  
APPROXIMATE QUANTITY OF STEEL SHOWN INCLUDES TOTAL QUANTITY OF GRATING, BOLTS, NUTS, WASHERS AND STEEL PIPE.  
HOLES IN THE PRECAST CONCRETE FLARED END SECTIONS SHALL BE CORED TO THE DIAMETERS NOTED. IF CORE-OUT ON THE OTHER END OF THE HOLE OCCURS, THE HOLE SHALL BE FILLED WITH GROUT TO CORRECT THE DIAMETER OF THE HOLE.  
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

**FRAME & GRATE TYPE 24**  
NOT TO SCALE

Ref. IDOT Standard No. 604091-02



QUANTITY OF STEEL	T
150 LBS.	

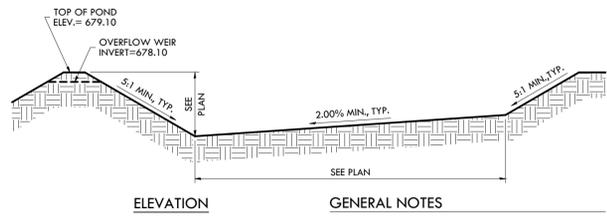
**STORAGE FACILITY SITE PLAN**  
1806 NORTH ROUTE 50  
BOURBONNAIS, IL 60914

**GENERAL DEVELOPMENT CORPORATION OF KANKAKEE**  
3420 WOODHAVEN DRIVE  
BOURBONNAIS, IL 60914

PROJECT: 15023.0301  
ISSUED: 07.15.15  
DRAWN BY: MRG  
CHECKED BY: NAP

SCALE: N/A  
SITE DETAILS

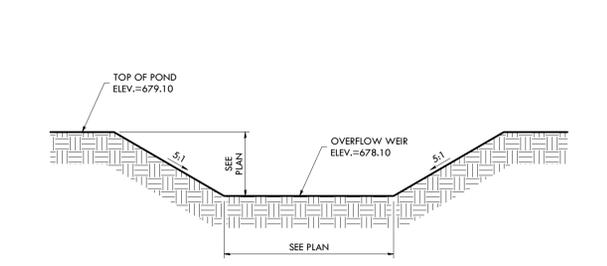
**DRY BOTTOM DETENTION POND**  
NOT TO SCALE



**GENERAL NOTES**  
ALL SLOPE RATIOS ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).  
SEE PLAN FOR POND SHAPE, LOCATION, AND ELEVATIONS  
SEE PLAN FOR STORMWATER OUTLET LOCATIONS, AND STRUCTURE SCHEDULE FOR ELEVATIONS  
SEE DETENTION POND OVERFLOW WEIR DETAIL FOR ELEVATIONS  
SEE STORM WATER POLLUTION PREVENTION PLAN FOR EROSION CONTROL MEASURES.

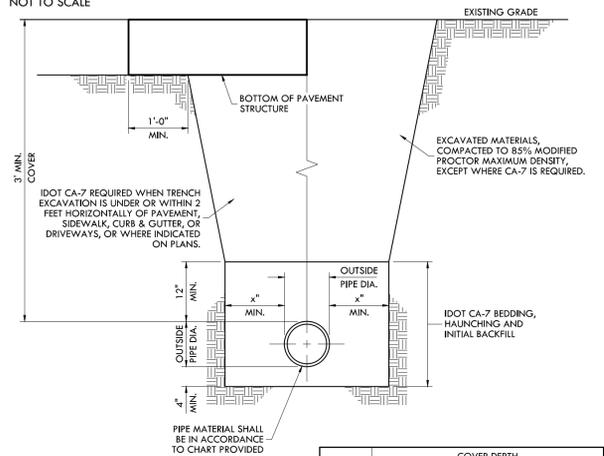
DET-DRAN\_Detention Pond, Dry Bottom

**DETENTION POND OVERFLOW WEIR**  
NOT TO SCALE



DET-DRAN\_Detention Pond-Weir

**SANITARY SEWER INSTALLATION**  
NOT TO SCALE

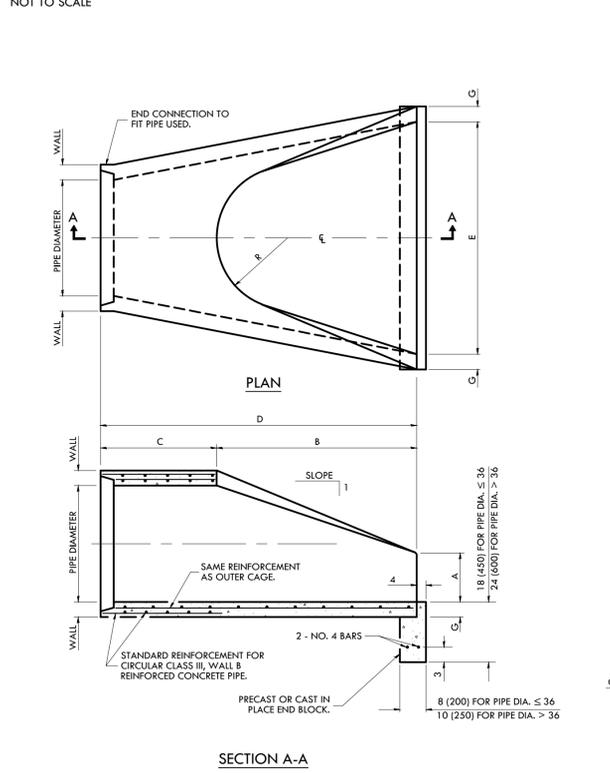


DIA.	COVER DEPTH		
	3' UP TO 6'	6' UP TO 15'	15' AND DEEPER
4" - 12"	PVC, SDR 35 ASTM D3034	PVC, SDR 35 ASTM D3034	PVC, DR 18 AWWA C900
14" - 24"	PVC, SDR 26 ASTM 2241	PVC, SDR 26 ASTM 2241	PVC, DR 18 AWWA C905
24" - 36"	PVC, DR 25 AWWA C905	PVC, DR 25 AWWA C905	PVC, DR 25 AWWA C905

**GENERAL NOTES**  
JOINTS FOR GRAVITY SEWER SHALL USE PUSH ON BELL AND SIGOT TYPE WITH RUBBER RING GASKETS CONFORMING TO ASTM D3034 FOR SDR 26 APPLICATIONS AND ASTM D3034 FOR AWWA C900 AND C905 APPLICATIONS.  
GRAVITY SANITARY SEWER FITTINGS SHALL COMPLY WITH ASTM D2241 SDR 26, AWWA C900 DR 18, OR AWWA DR 25 DEPENDENT UPON DEPTH. THE FITTINGS SHALL BE MADE WITH MANUFACTURER'S STANDARD PIPE BELLS AND GASKETS. GRAVITY SEWER RISERS AND SERVICE PIPE AND FITTINGS SHALL COMPLY WITH ASTM D2241 SDR 26, AWWA C900, OR AWWA C905 DEPENDENT UPON DEPTH.  
WHERE INDICATED ON THE PLANS, SANITARY SEWER PRESSURE PIPE SHALL COMPLY WITH ASTM D2241 FOR 160 PSI PRESSURE RATED PIPE SDR 26, MADE OF TYPE 1, GRADE 1 POLYVINYL CHLORIDE CONFORMING TO ASTM D1784. JOINTS SHALL USE PUSH-ON BELL AND SIGOT TYPE WITH RUBBER RING SEAL GASKETS CONFORMING TO ASTM D3139.  
PRESSURE SANITARY SEWER FITTINGS SHALL BE FACTORY FABRICATED WITH ATTACHED MAIN LINE COUPLING, WITH SAME RATING AS PIPE. PRESSURE SEWER RISERS AND SERVICE PIPE AND FITTINGS SHALL COMPLY WITH ASTM D2241, 140 PSI PRESSURE RATED, SDR 26 PIPE. SEPARATE NOTIFICATION SHALL BE PROVIDED TO PUBLIC WORKS DEPARTMENT PRIOR TO INSTALLING PRESSURE SANITARY SEWERS.  
ALL SANITARY SEWERS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH ARTICLE 31-1.118(3) OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN ILLINOIS, LATEST EDITION, AND DEFLECTION TESTED IN ACCORDANCE WITH ARTICLE 31-1.118(4) OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN ILLINOIS, LATEST EDITION. DEFLECTION TESTING SHALL BE DONE NO SOONER THAN 30 DAYS AFTER THE PIPE HAS BEEN BACKFILLED, NO SOONER THAN 30 DAYS AFTER SEWERS HAVE BEEN INSTALLED, THEY SHALL BE INSPECTED BY CLOSED CIRCUIT COLOR TELEVISION TO DETERMINE IF ANY PIPE INSTALLATION DEFECTS HAVE OCCURRED, AND TO DETERMINE THE LOCATION OF SERVICES. ONE COPY OF THE VIDEOTAPE AND WRITTEN INSPECTION REPORT SHALL BE FURNISHED TO THE VILLAGE/CITY.  
SEWER PLUGS SHALL BE INSTALLED AT DOWNSTREAM ENDS OF ALL NEW SEWERS AND LEFT IN PLACE UNTIL VILLAGE/CITY ACCEPTS SEWERS. SEWER PLUGS SHALL BE INSTALLED AT UPSTREAM ENDS OF NEW SEWERS AT THE END OF EACH DAY'S WORK.

DET-SSWR\_Sanitary Sewer Install

**PRECAST REINFORCED CONCRETE FLARED END SECTION**  
NOT TO SCALE



PIPE DIA.	APPROX. QTY. lbs.	WALL	A	B	C	D	E	G	R	APPROX. SLOPE
12	530	2	4	24	4'-0 7/8"	6'-0 7/8"	24	2	9	1:2.4
15	740	2 1/2	6	27	3'-10"	6'-1"	30	2 1/4	11	1:2.4
18	990	2 1/2	9	27	3'-10"	6'-1"	36	2 1/2	12	1:2.4
21	1280	2 3/4	9	35	38	6'-1"	3'-6"	2 3/4	13	1:2.4
24	1520	3	9 1/2	37 1/2	30	6'-1 1/2"	4'-0"	3	14	1:2.5
27	1930	3 1/4	10 1/2	4'-0"	25 1/2	6'-1 1/2"	4'-6"	3 1/4	14 1/2	1:2.4
30	2190	3 1/2	12	4'-6"	19 3/4	6'-1 3/4"	5'-0"	3 1/2	15	1:2.5
33	3200	3 3/4	13 1/2	4'-10 1/2"	39 1/4	8'-1 3/4"	5'-6"	3 3/4	17 1/2	1:2.5
36	4100	4	15	5'-3"	34 3/4	8'-1 3/4"	6'-0"	4	20	1:2.5
42	5380	4 1/2	21	5'-3"	35	8'-2"	6'-6"	4 1/2	22	1:2.5
48	6550	5	24	6'-0"	26	8'-2"	7'-0"	5	22	1:2.5
54	8240	5 1/2	27	5'-5"	35	8'-4"	7'-6"	5 1/2	24	1:2.0
60	8730	6	35	5'-0"	39	8'-3"	8'-0"	5	+	1:1.9
66	10710	6 1/2	30	6'-0"	27	8'-3"	8'-6"	5 1/2	+	1:1.7
72	12520	7	36	6'-6"	21	8'-3"	9'-0"	6	+	1:1.8
78	14770	7 1/2	36	7'-6"	21	9'-3"	9'-6"	6 1/2	+	1:1.8
84	18160	8	36	7'-6 1/2"	21	9'-3 1/2"	10'-0"	6 1/2	+	1:1.6

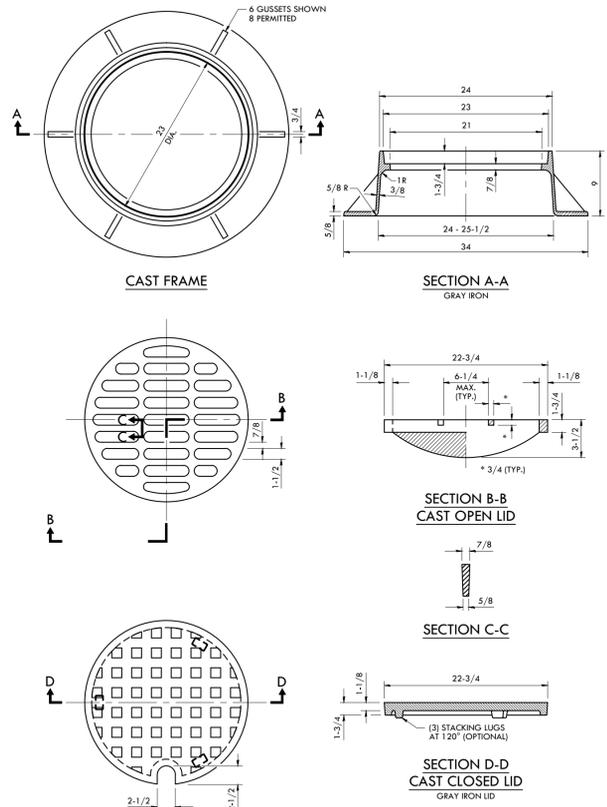
\* RADIUS AS FURNISHED BY MANUFACTURER

Ref. IDOT Std. No. 542301

DET-STRM\_Precast Reinfrt Conc. PIP (IDOT-542301)

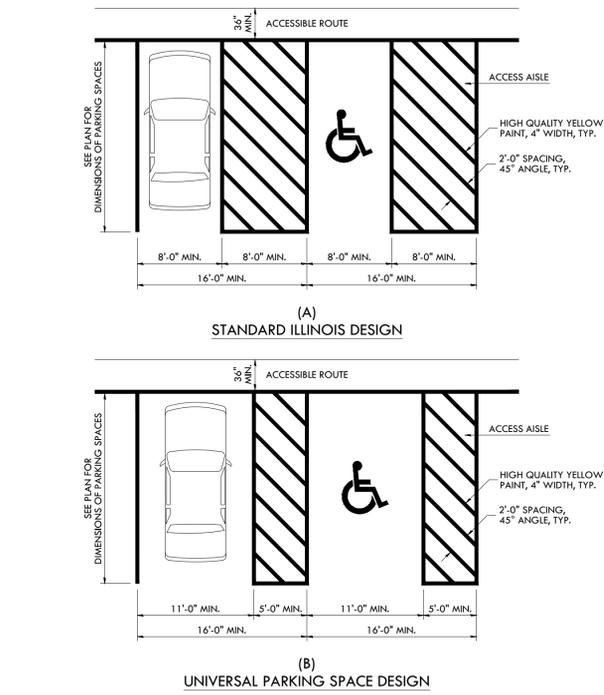
**FRAME AND LID - TYPE 1 [EJ 1050]**  
NOT TO SCALE

Ref. IDOT Std. No. 604001



**ACCESSIBLE PARKING SPACE**  
NOT TO SCALE

Ref. IAC, Sec. 400, Ill. B, Fig. 9

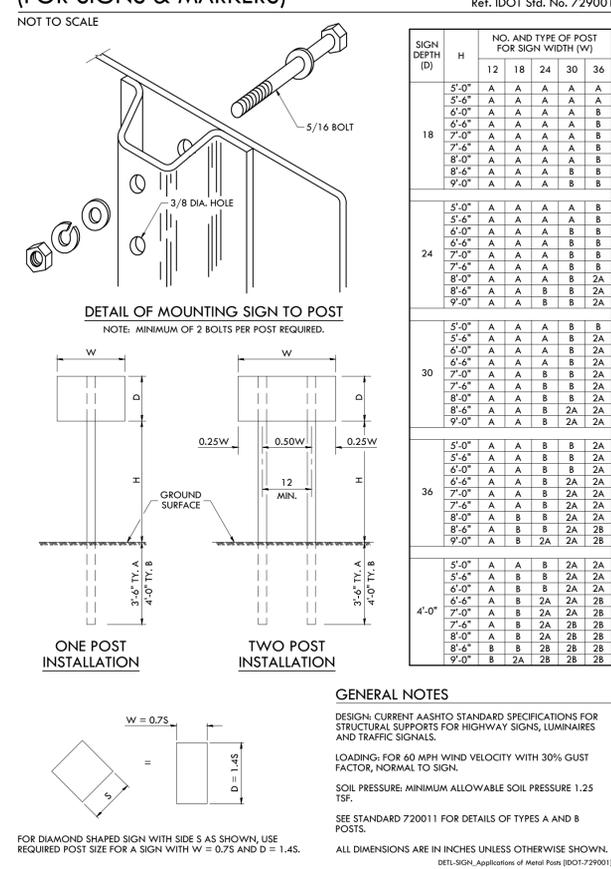


**ACCESSIBLE PARKING SIGN**  
NOT TO SCALE



**APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)**  
NOT TO SCALE

Ref. IDOT Std. No. 729001



**PIGGUSH ENGINEERING, INC**  
586 WILLIAM LATHAM DRIVE  
SUITE 8  
BOURBONNAIS, ILLINOIS 60914  
P. 815.614.3447  
F. 815.614.3735  
ILL. DESIGN FIRM LICENSE NO. 184.006779

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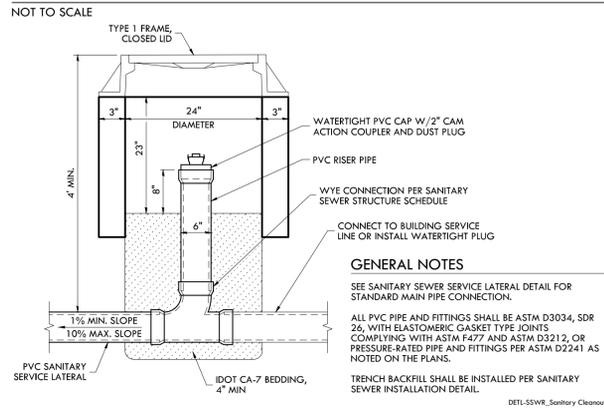
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1	07/23/15	PER CLIENT REVIEW
2	07/28/15	APPENDUM 2
3	08/25/15	PER VILLAGE REVIEW
4	09/21/15	PER IDOT REVIEW

**STORAGE FACILITY SITE PLAN**  
1806 NORTH ROUTE 50  
BOURBONNAIS, IL 60914  
GENERAL DEVELOPMENT CORPORATION  
OF KANKAKEE  
3420 WOODHAVEN DRIVE  
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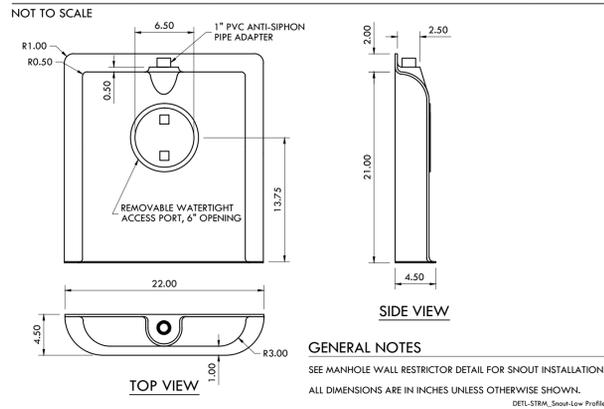
PROJECT: 15023.0301  
ISSUED: 07.15.15  
DRAWN BY: MRG  
CHECKED BY: NAP

SCALE: N/A  
SITE DETAILS  
C5.2

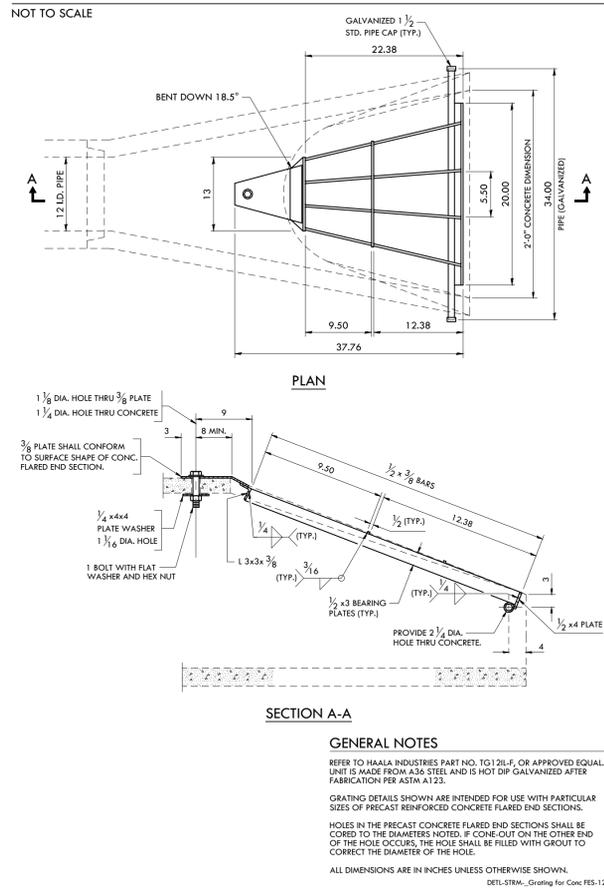
### SANITARY CLEANOUT



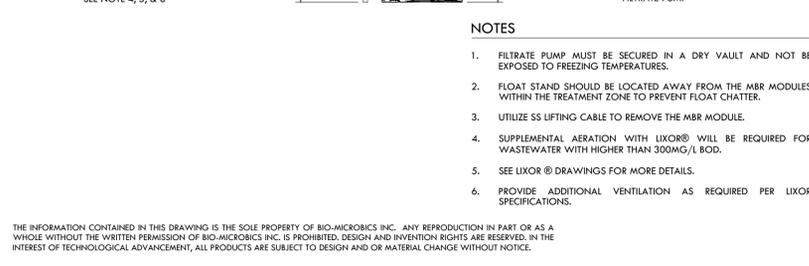
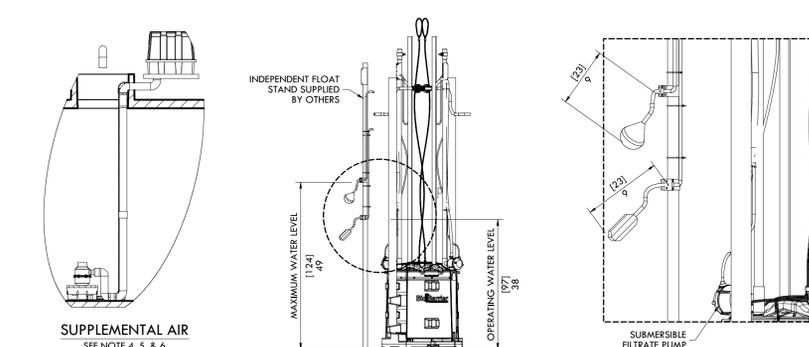
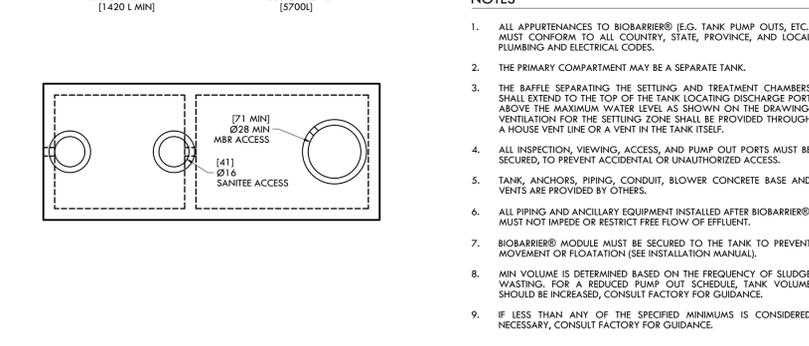
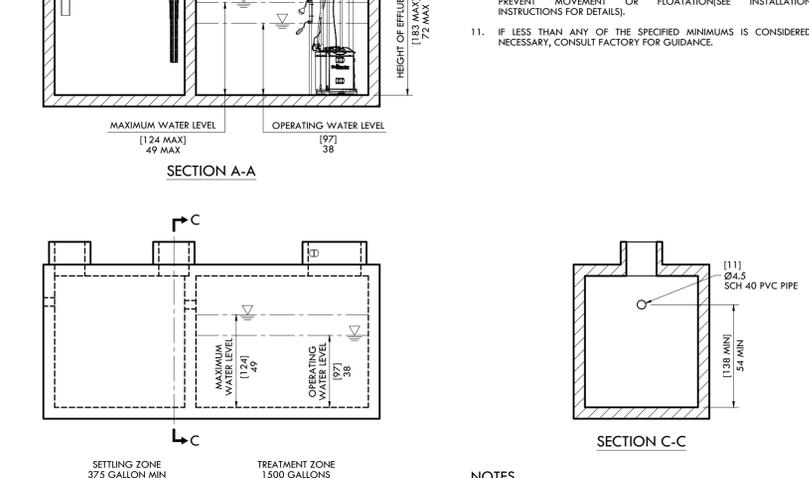
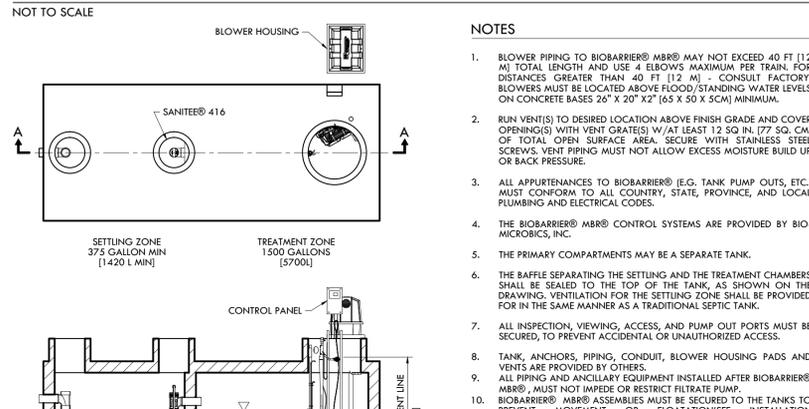
### SNOUT - LOW PROFILE



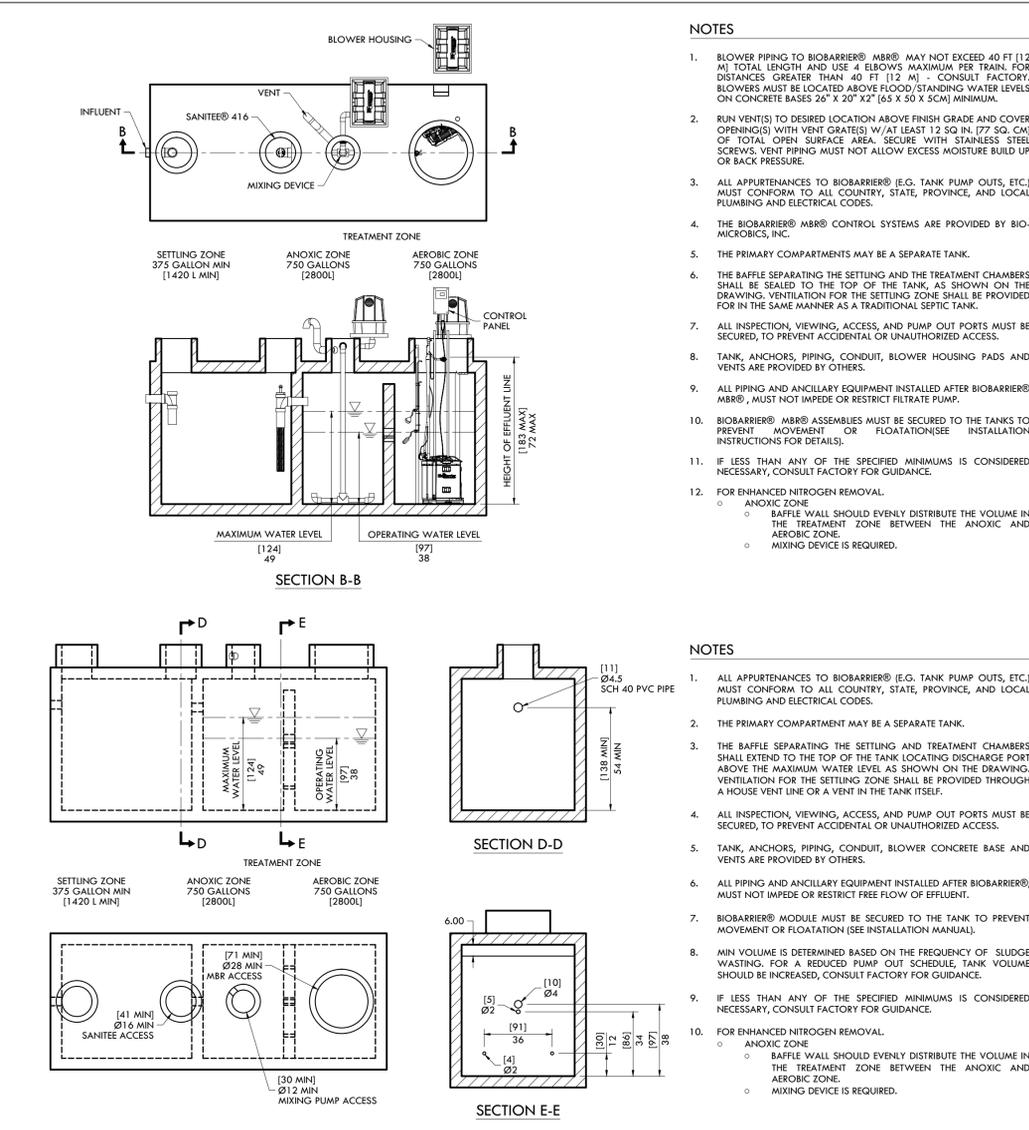
### GRATING FOR 12" CONCRETE FLARED END SECTION



### BIOBARRIER MEMBRANE BIOREACTOR - MBR 0.5



### STORAGE FACILITY SITE PLAN



### SPECIFICATIONS FOR BIOBARRIER® MBR® 0.5 WASTEWATER TREATMENT SYSTEM

**NOTES**  
1. ALL APPURTENANCES TO BIOBARRIER® (E.G. TANK PUMP OUTS, ETC.) MUST CONFORM TO ALL COUNTRY, STATE, PROVINCE, AND LOCAL PLUMBING AND ELECTRICAL CODES.  
2. THE PRIMARY COMPARTMENT MAY BE A SEPARATE TANK.  
3. THE BAFFLE SEPARATING THE SETTLING AND TREATMENT CHAMBERS SHALL EXTEND TO THE TOP OF THE TANK LOCATING DISCHARGE PORT ABOVE THE MAXIMUM WATER LEVEL AS SHOWN ON THE DRAWING. VENTILATION FOR THE SETTLING ZONE SHALL BE PROVIDED THROUGH A HOUSE VENT LINE OR A VENT IN THE TANK ITSELF.  
4. ALL INSPECTION, VIEWING, ACCESS, AND PUMP OUT PORTS MUST BE SECURED, TO PREVENT ACCIDENTAL OR UNAUTHORIZED ACCESS.  
5. TANK, ANCHORS, PIPING, CONDUIT, BLOWER CONCRETE BASE AND VENTS ARE PROVIDED BY OTHERS.  
6. ALL PIPING AND ANCILLARY EQUIPMENT INSTALLED AFTER BIOBARRIER®, MUST NOT IMPEDE OR RESTRICT FREE FLOW OF EFFLUENT.  
7. BIOBARRIER® MODULE MUST BE SECURED TO THE TANK TO PREVENT MOVEMENT OR FLOATATION (SEE INSTALLATION MANUAL).  
8. MIN VOLUME IS DETERMINED BASED ON THE FREQUENCY OF SLUDGE WASTING. FOR A REDUCED PUMP OUT SCHEDULE, TANK VOLUME SHOULD BE INCREASED, CONSULT FACTORY FOR GUIDANCE.  
9. IF LESS THAN ANY OF THE SPECIFIED MINIMUMS IS CONSIDERED NECESSARY, CONSULT FACTORY FOR GUIDANCE.  
10. FOR ENHANCED NITROGEN REMOVAL  
o ANOXIC ZONE  
o BAFFLE WALL SHOULD EVENLY DISTRIBUTE THE VOLUME IN THE TREATMENT ZONE BETWEEN THE ANOXIC AND AEROBIC ZONE.  
o MIXING DEVICE IS REQUIRED.

**PIGGUSH ENGINEERING, INC**  
586 WILLIAM LATHAM DRIVE  
SUITE 8  
BOURBONNAIS, ILLINOIS 60914  
P. 815.614.3447  
F. 815.614.3735  
IL DESIGN FIRM LICENSE No. 184.006779

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2	07/28/15	APPENDIX 2
3	08/25/15	PER VILLAGE REVIEW
4	09/21/15	PER IDOT REVIEW

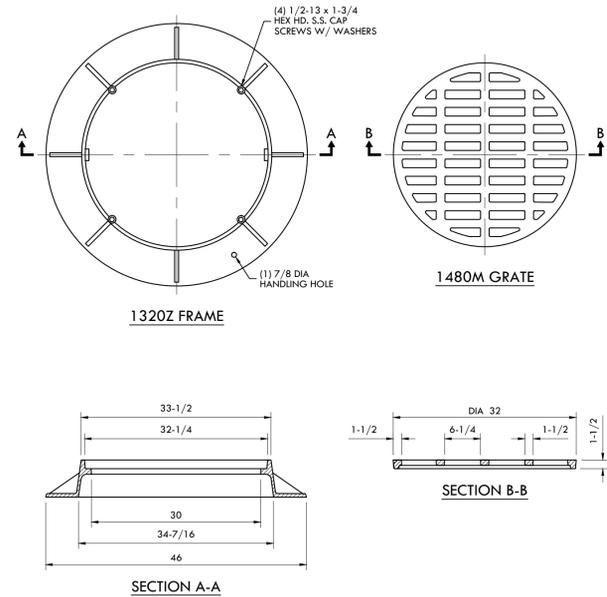
**GENERAL DEVELOPMENT CORPORATION OF KANKAKEE**  
3420 WOODHAVEN DRIVE  
BOURBONNAIS, IL 60914

PROJECT: 15023.0301  
ISSUED: 07.15.15  
DRAWN BY: MRG  
CHECKED BY: NRP

SCALE: N/A  
SITE DETAILS  
**C5.3**

**EJ 1320Z FRAME & 1480M GRATE**  
NOT TO SCALE

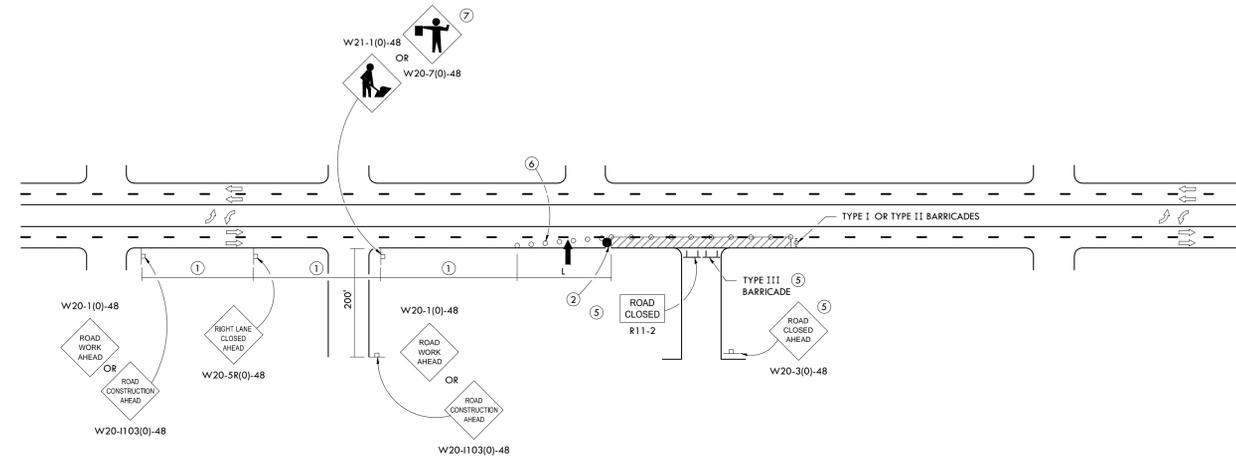
Ref. EJ 1320Z & 1480M



**GENERAL NOTES**  
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.  
DET.-STRM\_1320Z Frame & 1480M Grate (EJ 1320Z & 1480M)

**URBAN LANE CLOSURE, MULTILANE, 2W, WITH BIDIRECTIONAL LEFT TURN LANE**  
NOT TO SCALE

Ref. IDOT Standard No. 701.602



POSTED SPEED	SIGN SPACING
55	500'
50-45	350'
<45	200'

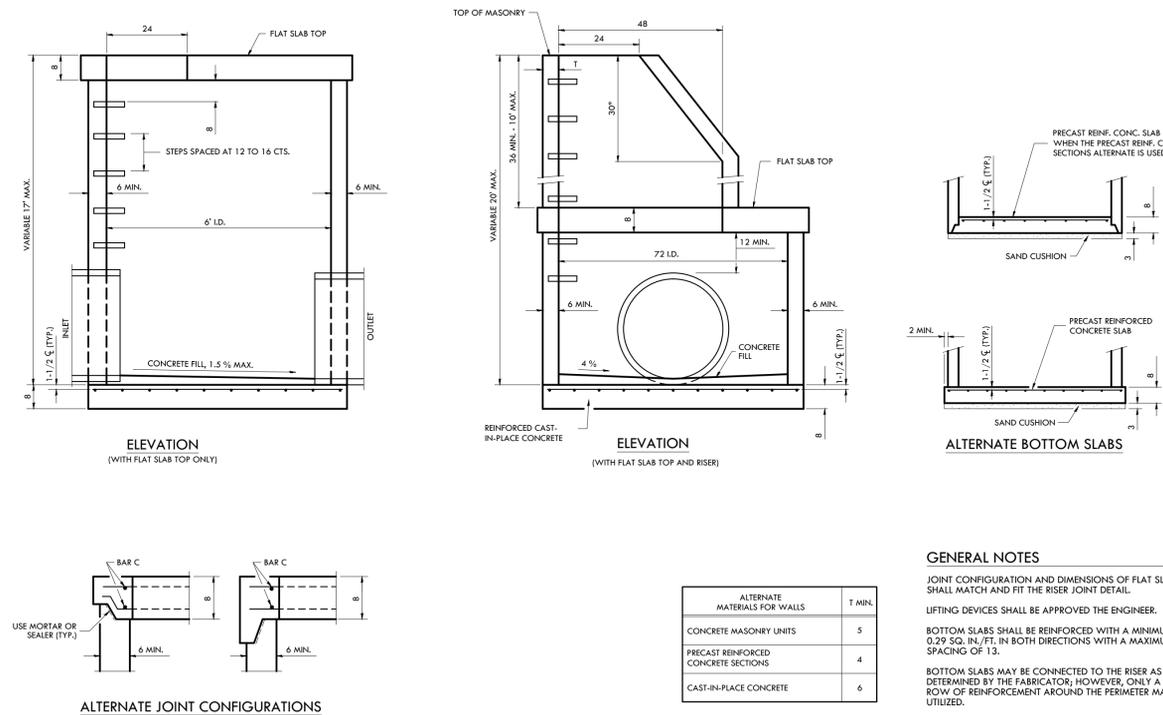
- SYMBOLS**
- ↑ ARROW BOARD
  - ▨ WORK AREA
  - CONE, DRUM OR BARRICADE (CONES FOR DAYTIME USE ONLY)
  - ⊥ SIGN ON PORTABLE OR PERMANENT SUPPORT
  - FLAGGER WITH TRAFFIC CONTROL SIGN
  - ⊕ BARRICADE OR DRUM WITH STEADY BURNING MONDIRECTIONAL LIGHT
  - ⊥ TYPE III BARRICADE WITH FLASHING LIGHTS

- GENERAL NOTES**
- 1 REFER TO SIGN SPACING TABLE FOR DISTANCES.
  - 2 REQUIRED FOR SPEEDS > 40 MPH.
  - 3 REQUIRED IF WORK EXCEEDS 500' OR 1 BLOCK, REPEAT EVERY 1 MILE.
  - 4 CONES AT 25' CENTERS FOR 250', ADDITIONAL CONES MAY BE PLACED AT 50' CENTERS. WHEN DRUMS OR TYPE I OR II BARRICADES ARE USED, THE INTERVAL BETWEEN DEVICES MAY BE DOUBLED.
  - 5 FOR APPROVED SIDE ROAD CLOSURES.
  - 6 CONES, DRUMS OR BARRICADES AT 20' CENTERS IN TAPER.
  - 7 USE FLAGGER SIGN ONLY WHEN FLAGGER IS PRESENT.

**GENERAL NOTES**  
THIS STANDARD IS USED WHERE AT ANY TIME, DAY OR NIGHT, ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCRUSH ON THE PAVEMENT REQUIRING THE CLOSURE OF ONE TRAFFIC LANE IN AN URBAN AREA.  
IF THE WORK OPERATION IS PERFORMED BETWEEN 9:00 A.M. AND 3:00 P.M. AND DOES NOT EXCEED 15 MIN. THE PROTECTION SHALL BE AS SHOWN FOR STANDARD 701.426.  
CALCULATE LAS AS FOLLOWS:  
SPEED LIMIT FORMULAS  
40 MPH OR LESS:  $L = \frac{WS^2}{40}$   
45 MPH OR GREATER:  $L = \frac{WS^2}{45}$   
W = WIDTH OF OFFSET IN FEET.  
S = NORMAL POSTED SPEED MPH.  
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.  
DET.-TRAF\_Urban Lane Closure Multi Ln 2W + Bidirect Left Turn Ln - Case IV (IDOT-701.602)

**MANHOLE TYPE A 6'**  
NOT TO SCALE

Ref. IDOT Std. No. 602406  
Sheet 1 of 2

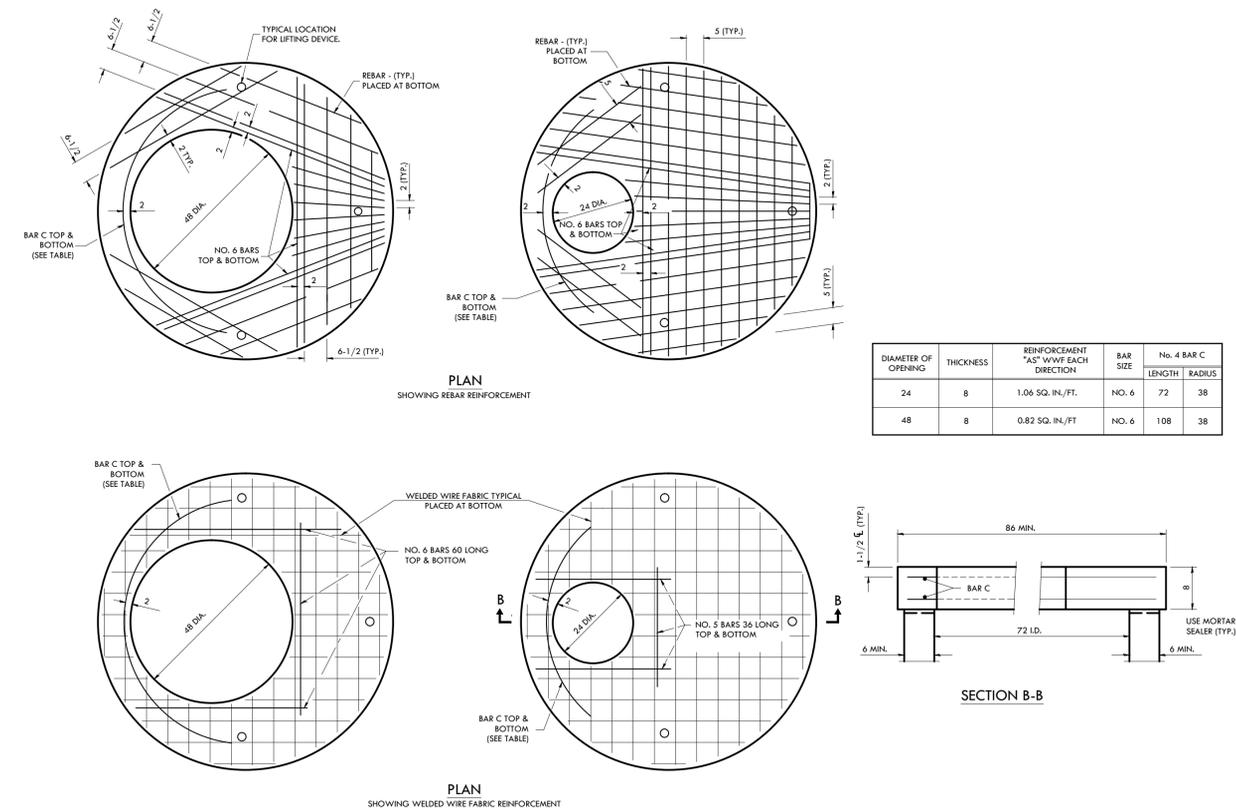


ALTERNATE MATERIALS FOR WALLS	T MIN.
CONCRETE MASONRY UNITS	5
PRECAST REINFORCED CONCRETE SECTIONS	4
CAST-IN-PLACE CONCRETE	6

**GENERAL NOTES**  
JOINT CONFIGURATION AND DIMENSIONS OF FLAT SLAB TOP SHALL MATCH AND FIT THE RISER JOINT DETAIL.  
LIFTING DEVICES SHALL BE APPROVED BY THE ENGINEER.  
BOTTOM SLABS SHALL BE REINFORCED WITH A MINIMUM OF 0.29 SQ. IN./FT. IN BOTH DIRECTIONS WITH A MAXIMUM SPACING OF 12".  
BOTTOM SLABS MAY BE CONNECTED TO THE RISER AS DETERMINED BY THE FABRICATOR; HOWEVER, ONLY A SINGLE ROW OF REINFORCEMENT AROUND THE PERIMETER MAY BE UTILIZED.  
SEE STANDARD 602701 FOR DETAILS OF MANHOLE STEPS.  
\* FOR PRECAST REINFORCED CONCRETE SECTIONS, THIS DIMENSION MAY VARY FROM THE DIMENSION GIVEN TO PLUS 6".  
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.  
DET.-STRM\_Manhole Type A 6H (IDOT-602406)

**MANHOLE TYPE A 6'**  
NOT TO SCALE

Ref. IDOT Std. No. 602406  
Sheet 2 of 2



DIAMETER OF OPENING	THICKNESS	REINFORCEMENT "AS" W/F EACH DIRECTION	BAR SIZE	No. 4 BAR C LENGTH	No. 4 BAR C RADIUS
24	8	1.06 SQ. IN./FT.	NO. 6	72	38
48	8	0.82 SQ. IN./FT.	NO. 6	108	38

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PROJECT: 15023.0301  
ISSUED: 07.15.15  
DRAWN BY: MRG  
CHECKED BY: NAP

SCALE: N/A

SITE DETAILS

**C5.4**

DET.-STRM\_Manhole Type A 6H (IDOT-602406)

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 BOURBONNAIS, IL 60914  
 GENERAL DEVELOPMENT CORPORATION  
 OF KANKAKEE  
 3420 WOODHAVEN DRIVE  
 BOURBONNAIS, IL 60914

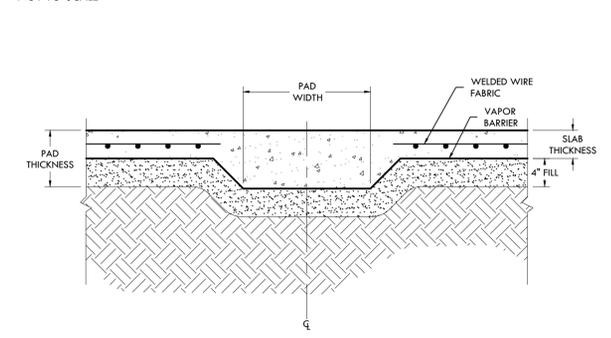
PROJECT: 15023.0301  
 ISSUED: 07.15.15  
 DRAWN BY: MRG  
 CHECKED BY: NAP

SCALE: N/A

SITE DETAILS

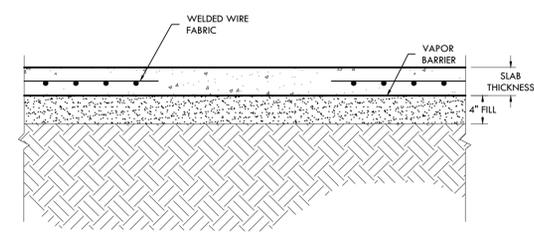
**C5.5**

**SLAB, INTERIOR PAD SECTION DETAIL**  
 NOT TO SCALE



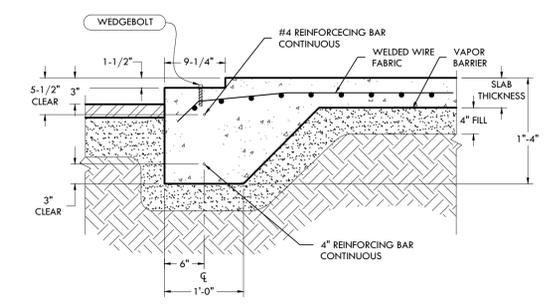
DET-COHC\_Slab Interior Pad Section

**SLAB, INTERIOR SECTION DETAIL**  
 NOT TO SCALE



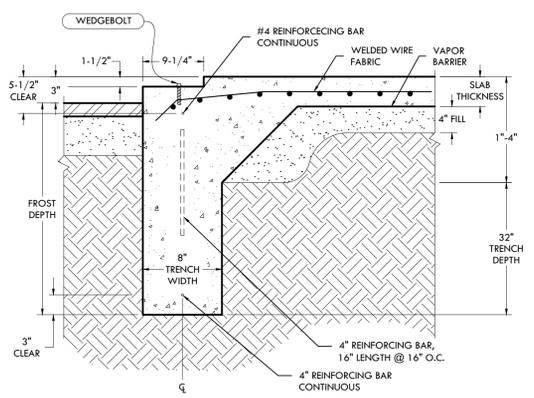
DET-COHC\_Slab Interior Section

**FLOATING SLAB DETAIL, NOTCHED**  
 NOT TO SCALE



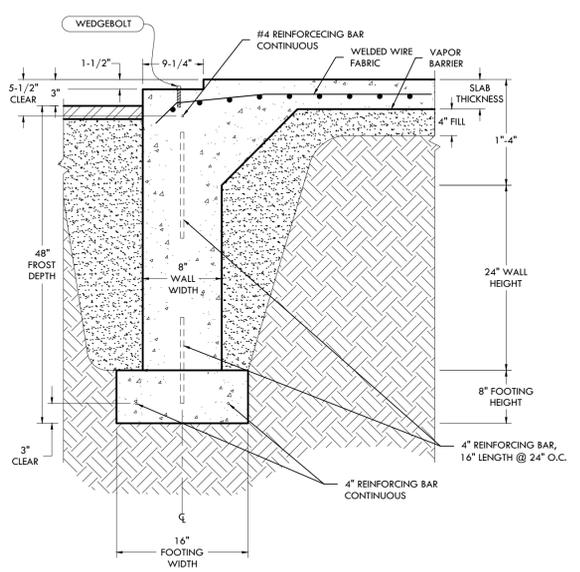
DET-COHC\_Floating Slab-Notched

**STANDARD TRENCH DETAIL, NOTCHED**  
 NOT TO SCALE

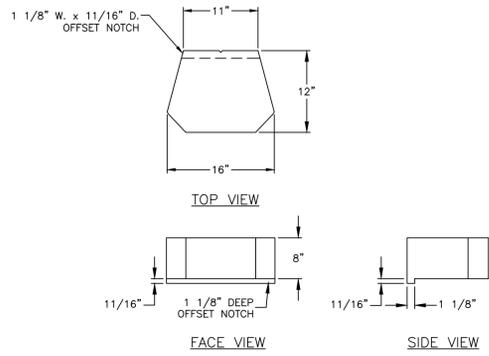


DET-COHC\_Standard Trench-Notched

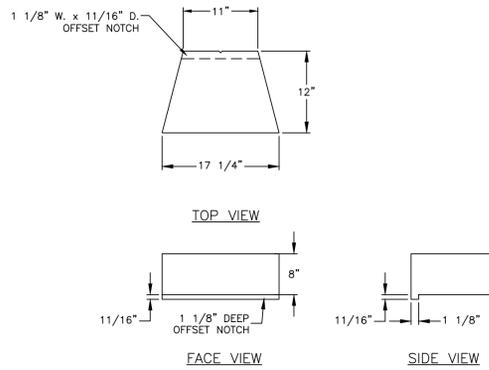
**FROST WALL DETAIL, NOTCHED**  
 NOT TO SCALE



DET-COHC\_Frost Wall-Notched

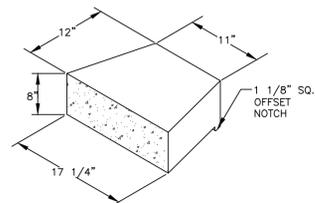


**BEVELED UNIT**

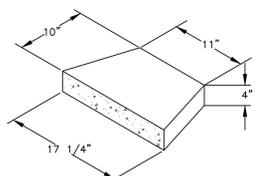


**STRAIGHT UNIT**

**X ANCHOR DIAMOND® 3-WAY BLOCK VIEWS WX (NOT TO SCALE)**

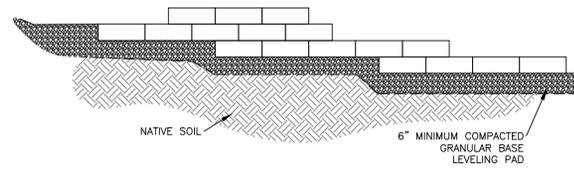


**STRAIGHT UNIT**

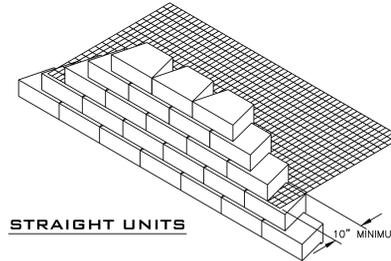


**CAP UNIT**

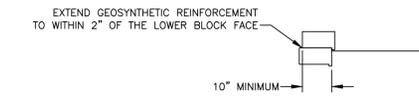
**X ANCHOR DIAMOND® ISOMETRIC BLOCK VIEWS WX (NOT TO SCALE)**



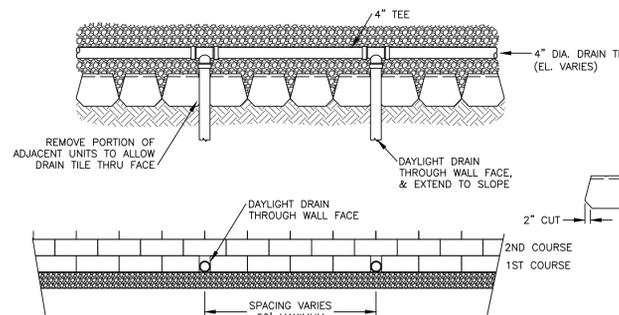
**X ANCHOR DIAMOND® TYPICAL STEP-UP DETAIL WX (NOT TO SCALE)**



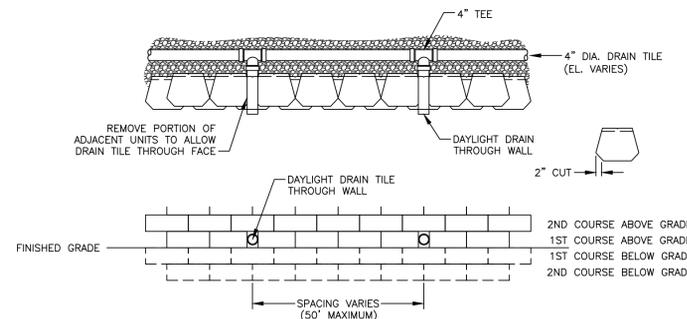
**STRAIGHT UNITS**



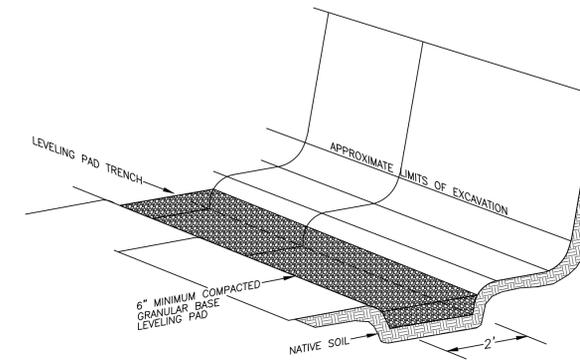
**X ANCHOR DIAMOND® REINFORCEMENT CONNECTION WX (NOT TO SCALE)**



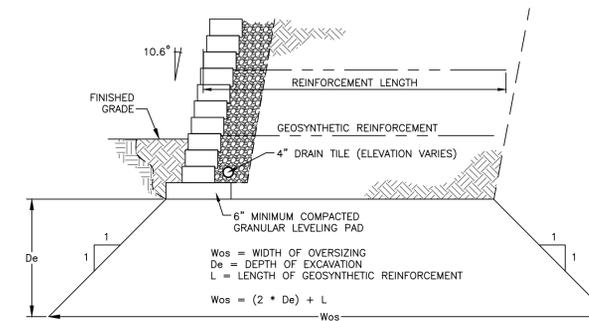
**X ANCHOR DIAMOND® DAYLIGHT DRAINTILE THROUGH TOE SLOPE WX (NOT TO SCALE)**



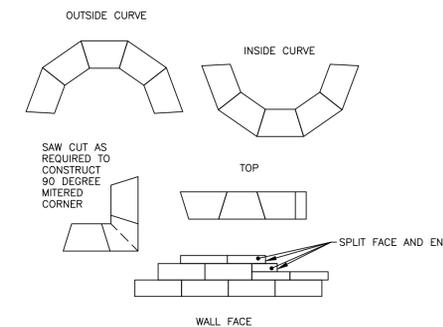
**X ANCHOR DIAMOND® DAYLIGHT DRAINTILE THROUGH WALL WX (NOT TO SCALE)**



**X ANCHOR DIAMOND® TYPICAL BASE PREPARATION WX (NOT TO SCALE)**



**X ANCHOR DIAMOND® 1:1 EXCAVATION OVERSIZING (SCALE: 3/8\"/>**



1. ALWAYS START CAPPING WALL FROM THE LOWEST ELEVATION.
2. LAYOUT CAPS PRIOR TO USING ADHESIVE.
3. CUT CAPS TO FIT. VARIOUS COMBINATIONS OF LONG AND SHORT CAP FACES WILL BE NECESSARY FOR RADI GREATER THAN THE MINIMUM.
4. ALTERNATE SHORT AND LONG CAP FACES EVERY OTHER CAP TO ACHIEVE A STRAIGHT ROW OF CAPS.
5. USE EXTERIOR-GRADE CONSTRUCTION ADHESIVE TO SECURE CAPS.
6. REFER TO DETAIL X ON SHEET WX FOR ADDITIONAL INFORMATION.

**X ANCHOR DIAMOND® CAP BLOCK DESIGN DETAILS WX (NOT TO SCALE)**

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**STORAGE FACILITY SITE PLAN**  
 1806 NORTH ROUTE 50  
 BOURBONNAIS, IL 60914  
 GENERAL DEVELOPMENT CORPORATION  
 OF KANKAKEE  
 3420 WOODHAVEN DRIVE  
 BOURBONNAIS, IL 60914

PROJECT: 15023.0301  
 ISSUED: 07.15.15  
 DRAWN BY: MRG  
 CHECKED BY: NAP

SCALE: N/A

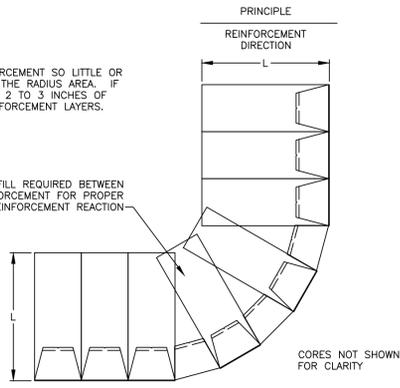
SITE DETAILS  
 PRECAST MODULAR  
 BLOCK WALLS

**C5.6**

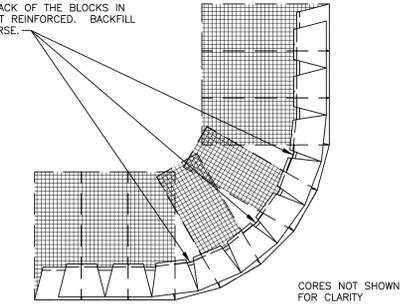
5959 BAKER ROAD, SUITE 390  
 MINNETONKA, MN 55345-5973  
 PHONE: (952) 933-8855  
 FAX: (952) 979-8454  
 © 2007 ANCHOR WALL ENGINEERING, LLC  
**Anchor**  
 Wall Engineering, LLC

STEP 1 - PLACE REINFORCEMENT SO LITTLE OR NO OVERLAP OCCURS IN THE RADIUS AREA. IF OVERLAP OCCURS, PLACE 2 TO 3 INCHES OF SAND BETWEEN THE REINFORCEMENT LAYERS.

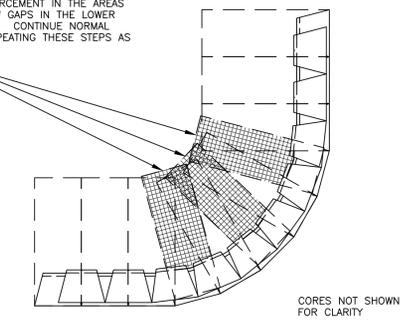
2" TO 3" OF SOIL FILL REQUIRED BETWEEN OVERLAPPED REINFORCEMENT FOR PROPER SOIL AND REINFORCEMENT REACTION



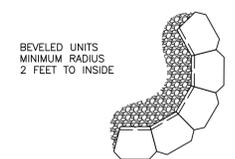
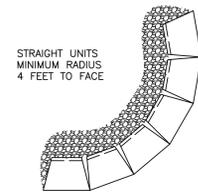
STEP 2 - LAY THE NEXT COURSE OF BLOCK. MAKE A MARK ON THE BACK OF THE BLOCKS IN THE AREAS THAT ARE NOT REINFORCED. BACKFILL AND COMPACT THAT COURSE.



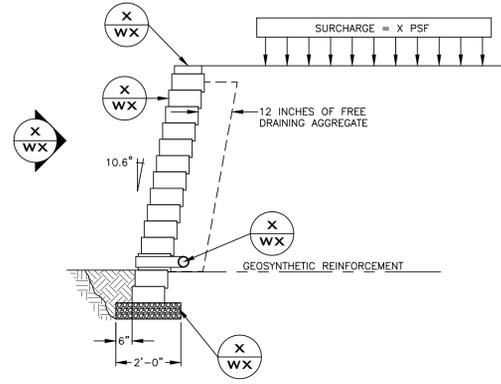
STEP 3 - PLACE REINFORCEMENT IN THE AREAS WHERE THE MARKS SHOW GAPS IN THE LOWER REINFORCEMENT PATTERN. CONTINUE NORMAL WALL CONSTRUCTION, REPEATING THESE STEPS AS NEEDED.



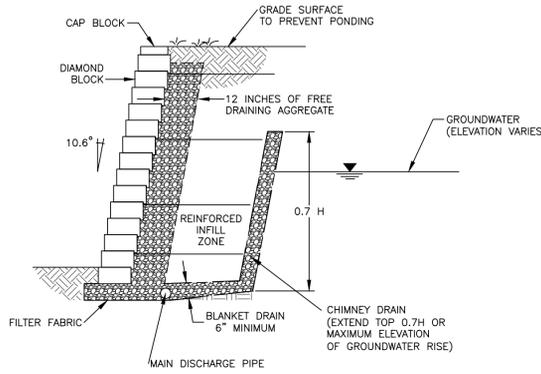
**X** ANCHOR DIAMOND®  
**WX** OUTSIDE CURVE W/ GRID  
(NOT TO SCALE)



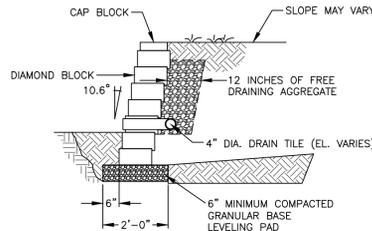
**X** ANCHOR DIAMOND®  
**WX** OUTSIDE CURVE  
(SCALE: 3/8" = 1'-0")



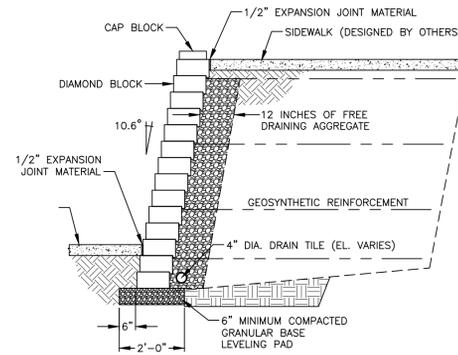
**X** ANCHOR DIAMOND®  
**WX** DETAIL DISCRPTION  
(SCALE: 3/8" = 1'-0")



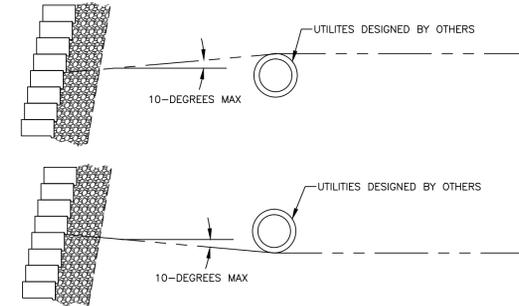
**X** ANCHOR DIAMOND®  
**WX** POTENTIAL GROUNDWATER BEHIND WALL  
(SCALE: 3/8" = 1'-0")



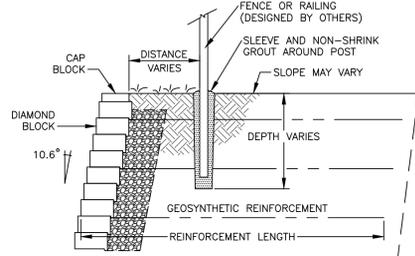
**X** ANCHOR DIAMOND®  
**WX** GRAVITY WALL  
(SCALE: 3/8" = 1'-0")



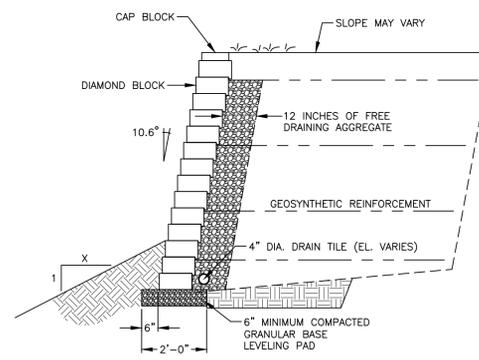
**X** ANCHOR DIAMOND®  
**WX** SIDEWALK ABOVE/BELOW WALL  
(SCALE: 3/8" = 1'-0")



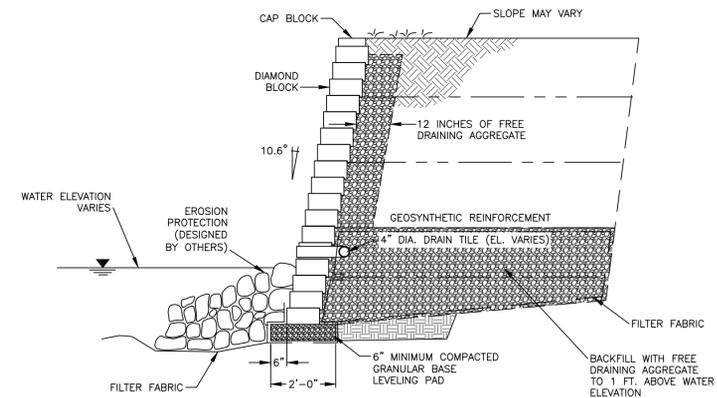
**X** ANCHOR DIAMOND®  
**WX** UTILITIES IN REINFORCED ZONE  
(NOT TO SCALE)



**X** ANCHOR DIAMOND®  
**WX** FENCE BEHIND WALL  
(NOT TO SCALE)



**X** ANCHOR DIAMOND®  
**WX** SLOPE BELOW WALL  
(SCALE: 3/8" = 1'-0")



**X** ANCHOR DIAMOND®  
**WX** SHORELINE/CHANNEL WALL  
(SCALE: 3/8" = 1'-0")

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PROJECT: 15023.0301  
ISSUED: 07.15.15  
DRAWN BY: MRG  
CHECKED BY: NAP

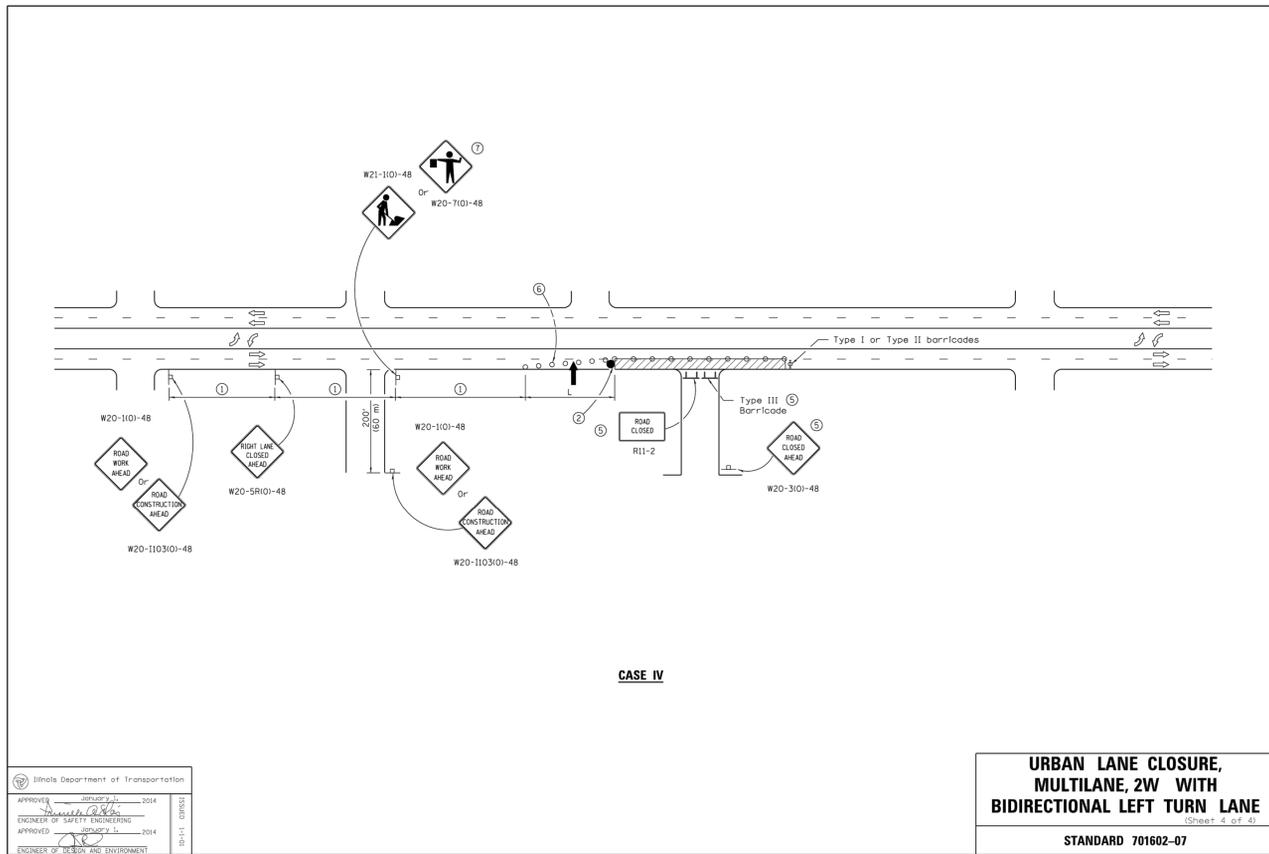
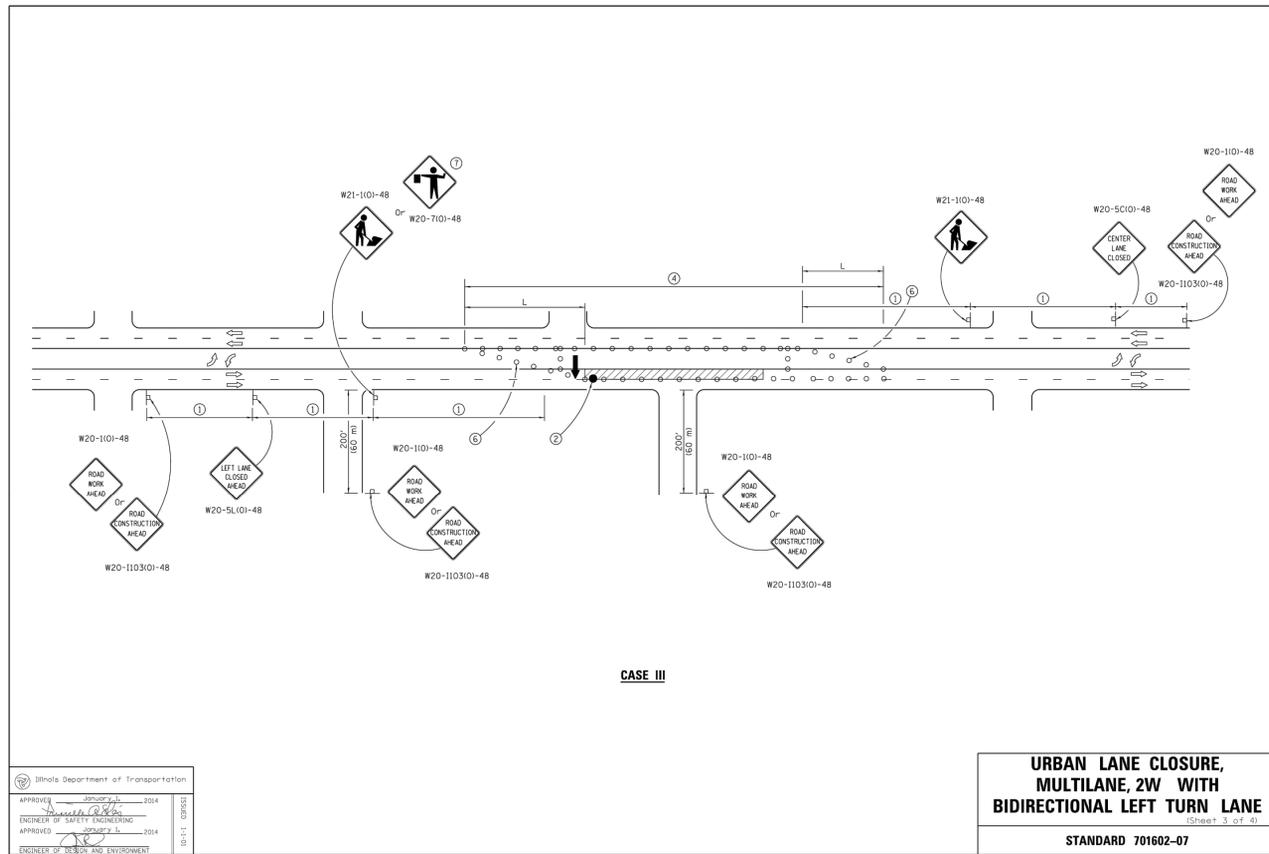
5959 BAKER ROAD, SUITE 390  
MINNETONKA, MN 55345-5973  
PHONE: (952) 933-8855  
FAX: (952) 979-8454  
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SCALE: N/A

SITE DETAILS  
PRECAST MODULAR  
BLOCK WALLS

**C5.7**

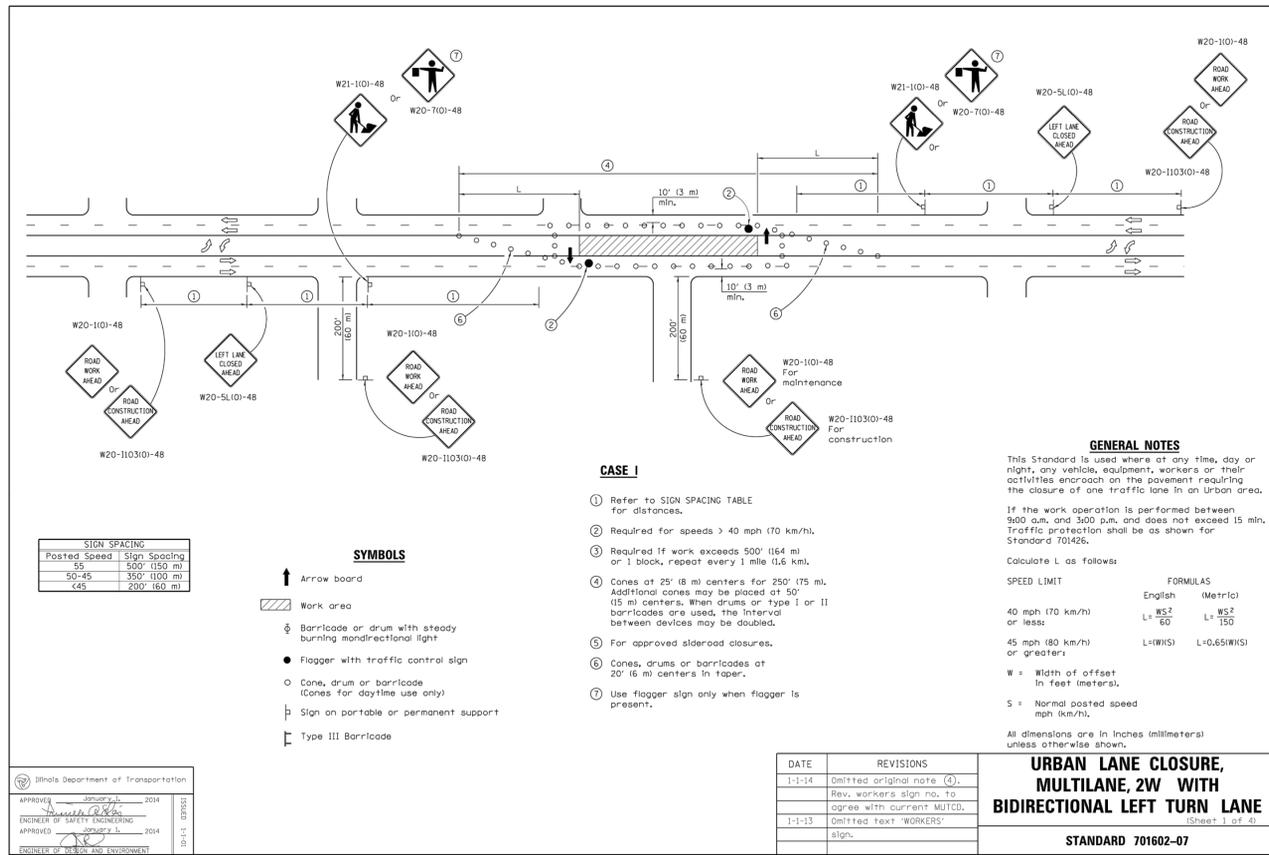


Illinois Department of Transportation  
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 APPROVED: [Signature] 2014  
 ENGINEER OF DESIGN AND ENVIRONMENT

**URBAN LANE CLOSURE,  
 MULTILANE, 2W WITH  
 BIDIRECTIONAL LEFT TURN LANE**  
 STANDARD 701602-07

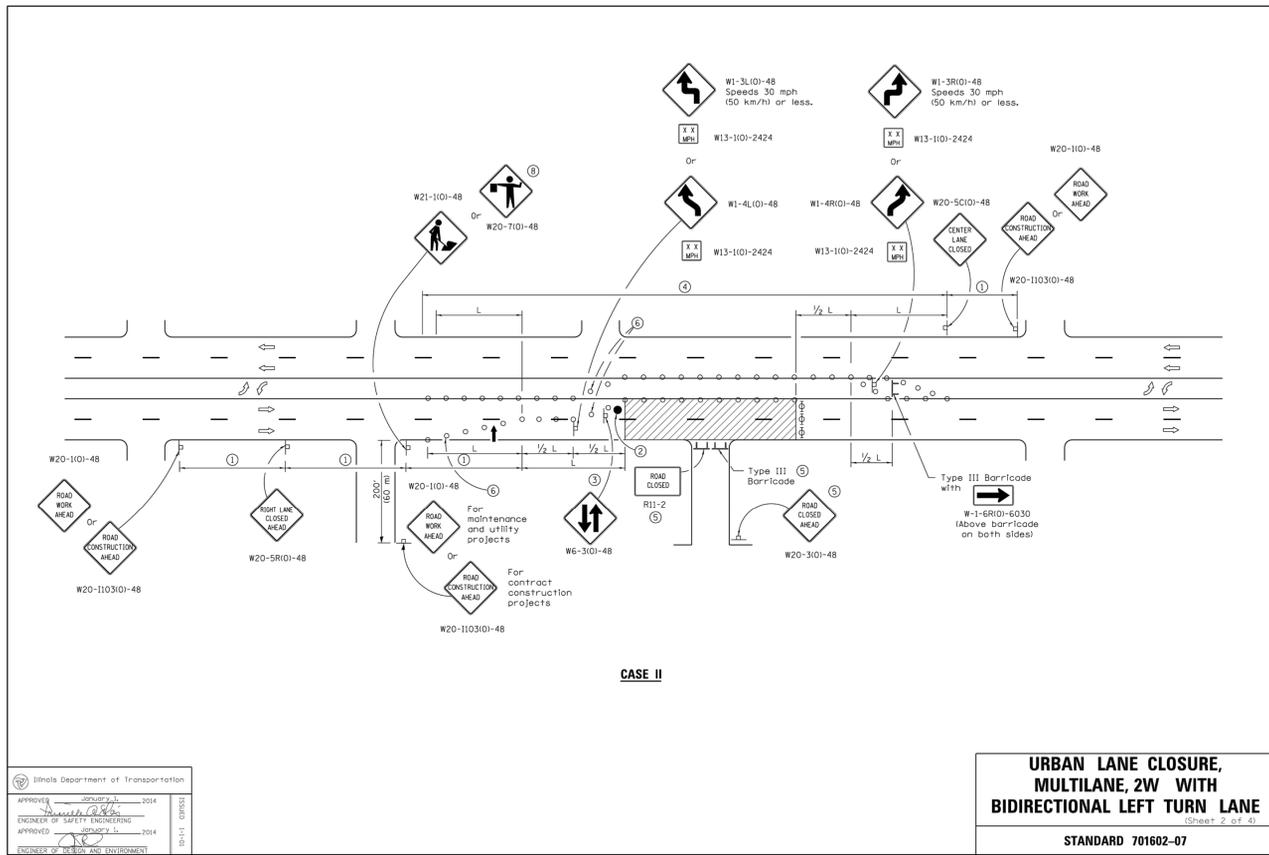
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REV	ISSUED	DESCRIPTION
1	07.23.15	PER CLIENT REVIEW
2	07.28.15	ADDENDUM 2
3	08.25.15	PER VILLAGE REVIEW
4	09.21.15	PER IDOT REVIEW

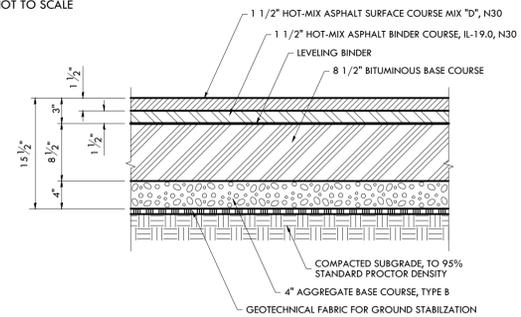
**STORAGE FACILITY SITE PLAN**  
 1806 NORTH ROUTE 50  
 BOURBONNAIS, IL 60914  
 GENERAL DEVELOPMENT CORPORATION  
 OF KANKAKEE  
 3420 WOODHAVEN DRIVE  
 BOURBONNAIS, IL 60914

PROJECT: 15023.0301  
 ISSUED: 07.15.15  
 DRAWN BY: MRG  
 CHECKED BY: NAP

SCALE: N/A  
 IDOT DETAILS

### HEAVY-DUTY HIGHWAY BITUMINOUS PAVEMENT CROSS SECTION

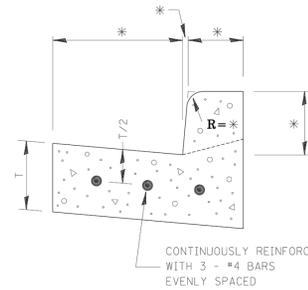
NOT TO SCALE



#### GENERAL NOTES

SEE PLAN FOR % SLOPE OF PAVEMENT  
 DETL-PVMT\_Pvmt Cross Section-Bitum000

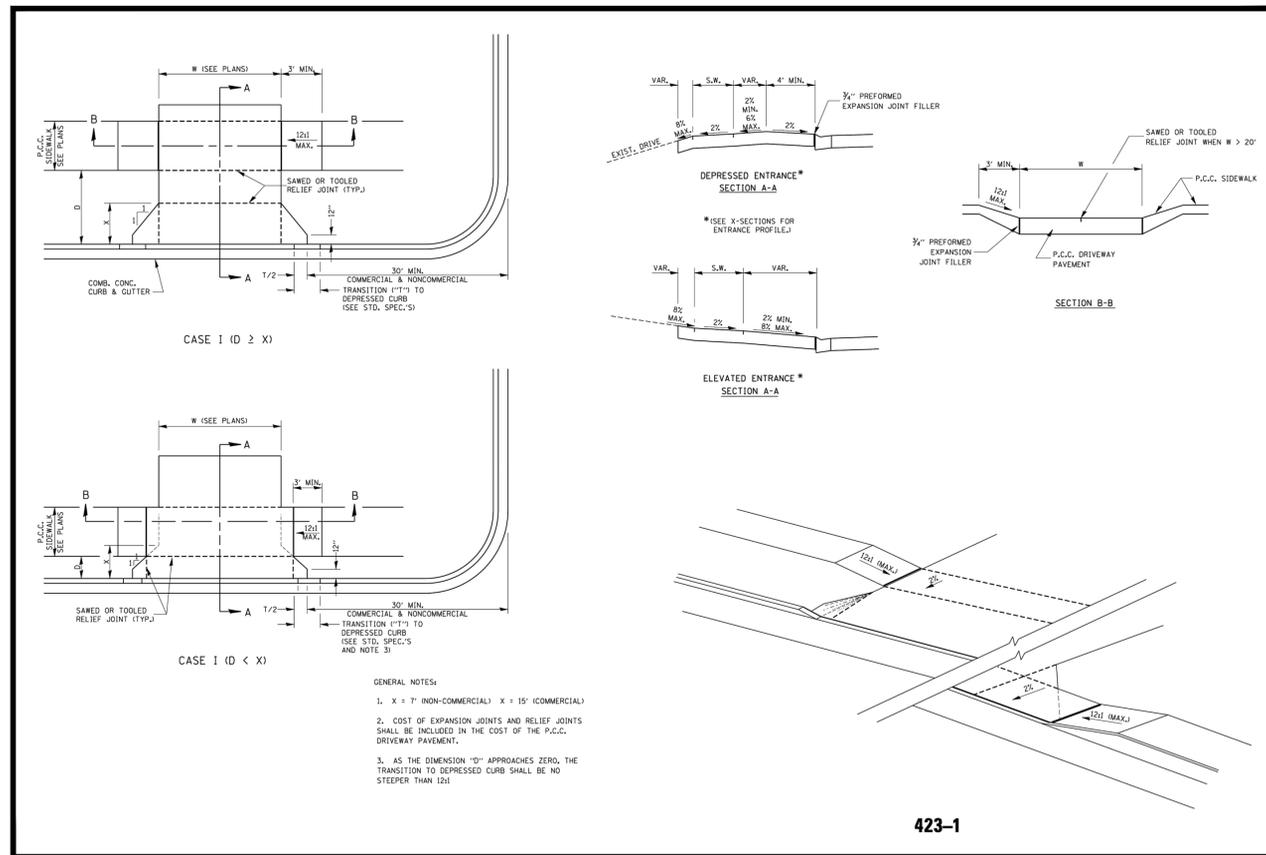
\* VARIES - SEE STANDARD 606001



REINFORCEMENT SHALL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR CC&G.

### REINFORCEMENT DETAIL FOR COMBINATION CONCRETE CURB AND GUTTER

606-4



423-1

PIGGUSH ENGINEERING, INC



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IDOT DETAILS

C5.9