PROJECT:

BLOOM ELEMENTARY SCHOOL

Site Paving Improvement Project

OWNER:



501 7th STREET ROCKFORD, IL 61104

ISSUANCE:

05.22.17 Issued for Bid & Permit

DRA	WING INDEX	SEAL
C01	Cover, Map and Index	
C02	General Notes	
C03	Existing Conditions and Removals Plan	WANG SWANSO
C04	Site Layout Plan	062-055014 LICENSED
C05	Site Grading and Drainage Plan	PROFESSIONAL **
C06	Details	1/2 LINU 5
C07	Details	Ex11-30.17



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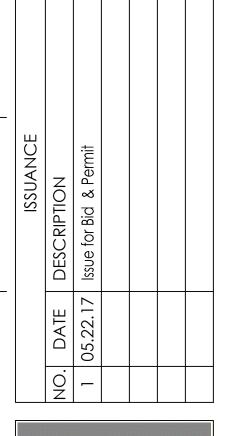
Hagney Architects LLC 4615 East State Street #206 Rockford, IL 61108 Phone: 815.397.3330 Fax: 815.397.0243 Contact: Mark Kehley

ARCHITECT



Civil

Arc Design Resources, Inc. 5291 Zenith Parkway Loves Park, IL 61111 Phone: 815.484.4300 Fax: 815.484.4303 Ryan Swanson



HAGNEY
ARCHITECTS
LLC

Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108



DFESSIONAL SEAL PIRATION DATE

DATE XX.XX.XX

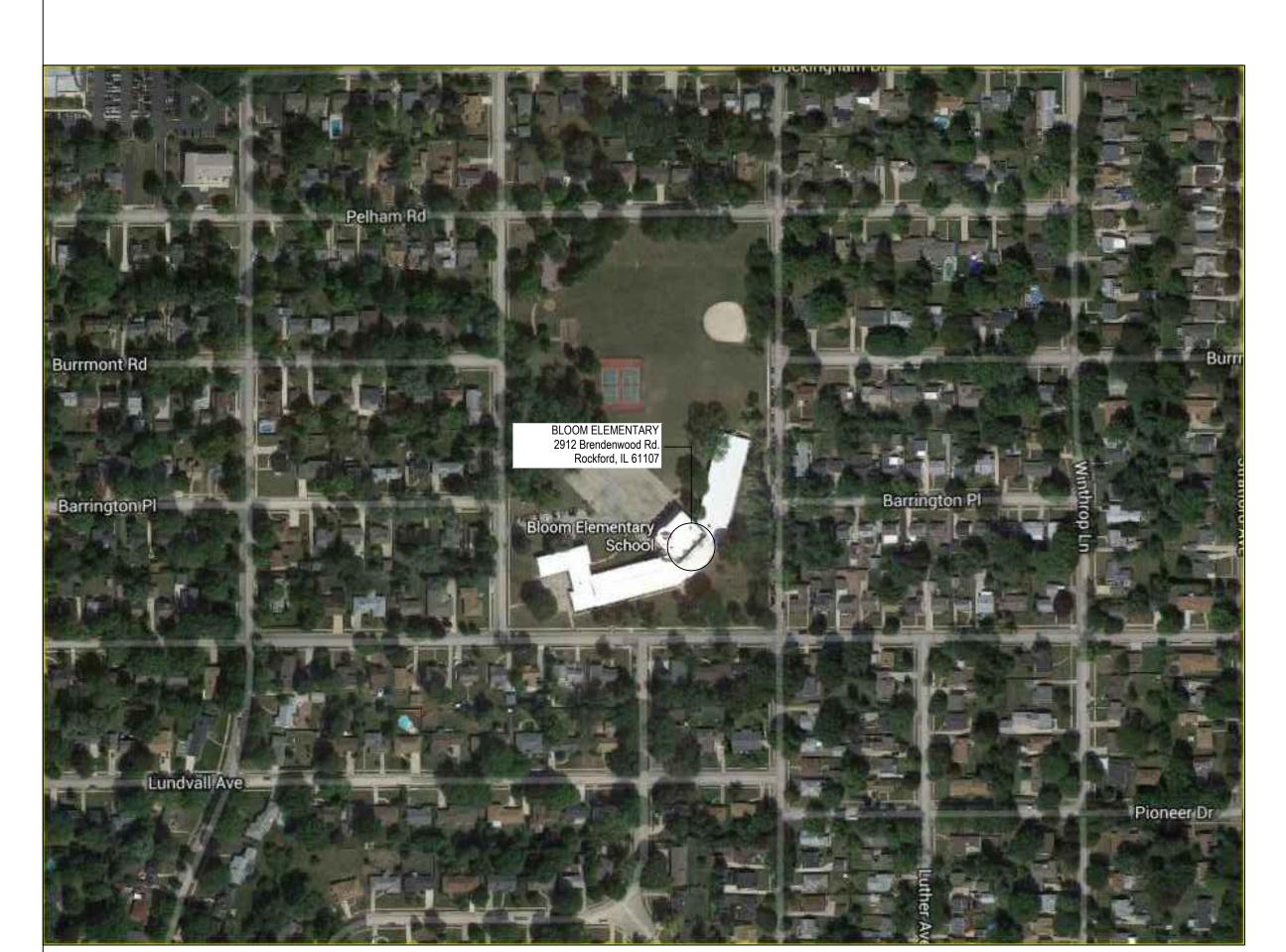
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OM ELEMENTARY SCHOOC Rockford Public School Rockford, Illinois

SHEET NO.



Bloom Elementary School Location Map

- Assume that if unsuitable materials are encountered and the replacement of these materials is required, this situation shall be handled A. The site contractor shall notify the general contractor immediately. The owner or owner's representative, prior to the undercutting being completed, must approve any additional undercutting. The quantities must be verified by the owner or owner's
- representative as the additional removal is being completed. B. If approved by the owner or owner's representative, these materials shall be removed and replaced with compacted granular materials and compacted in accordance to required standards. The cost of this work shall be an extra to the contract, with the
- cost being adjusted by change order C. If the site contractor is furnishing any off site materials, a representative sample of such materials shall be furnished to the general contractor's approved testing agency to determine a proctor.
- D. These materials shall be placed as homogeneously as possible to facilitate accurate compaction and moisture testing. 3. Definition for materials
- A. "Organic material" is defined as material having an organic content in excess of 8% or as determined by the project owner's B. Topsoil shall be friable and loamy (loam, sandy loam, silt loam, sandy clay loam, or clay loam). Sand content shall generally be
- less than 70% by weight, and clay content shall generally be less than 35% by weight. Organic soils, such as peat or muck, shall
- 2.00 mm (no. 10) sieve. D. Topsoil ph shall be between 5.0 and 8.0. topsoil organic content shall not be less than 1.5% by weight. Topsoil shall contain no substance that is potentially toxic to plant growth.

C. Topsoil shall be relatively free from large roots, weeds, brush, or stones larger than 25 mm (1 inch). At least 90% shall pass the

- E. "Existing on-site material" is defined as material of such a quality that the specified compaction can be met without any additional work other than "densifying" with a roller. Scarification and drying of this material will not need to be done prior to compaction.
- F. "Existing on-site material" is defined as material with a high moisture content that can not meet specified compaction requirements without scarification and drying, chemical stabilization, etc. of this material prior to compaction.
- G. "Unsuitable material" is defined as any materials that: G.1. Cannot be utilized as "topsoil", (organic) for landscape areas.
- G.2. Cannot be utilized as "engineered fill", regardless of moisture content and/or does not structurally meet the standards of the project owner's engineer's recommendations for "engineered fill". G.3. These materials can be defined as natural materials or materials from "demolition" and/or excavated areas; i.e., they are
- materials that would not be suitable for "engineered fill". H. "Off-site material" is defined as any materials that are brought from any area not indicated on this plan set.
- I. "Trench backfill" shall be defined as any materials used for the purposes of backfilling any trench and/or any excavation requiring backfilling. Refer to the section titled "standards for fill areas" for determine acceptable materials and procedures. J. the term "stripping" or "strip" as used herein shall be defined as the removal of all "organic materials" from a given area. the term "organic materials" is defined as material having an organic content over 8% based on ASTM test method d-2974 or as
- defined by the owner's engineer. 4. Standards for cut areas: A. A "cut area" is defined as any area where "engineered fill" is not required to bring the site to design subgrade elevation, instead
- excavation or "cutting" is required to achieve design subgrade elevation. ("Engineered fill" being defined as any material B. In "cut areas" the site contractor shall perform one of the following procedures at the discretion and in the presence of a
- representative of the owner's engineer and the project architect: B.1. Item 1: for exposed building or parking lot subgrades consisting primarily of granular soils the exposed subgrade should be compacted/densified by at least one (1) pass of a smooth-drummed vibratory roller having a minimum gross weight of 10
- B.2. Item 2: for exposed building or parking lot subgrades consisting primarily of cohesive soils, the exposed subgrades should be proof-rolled with a fully-loaded six-wheel truck having a minimum gross weight of 25 tons. the maximum allowable deflection under the specified equipment shall be 1/2".
- C. In the event that adequate stability of granular soils subgrades cannot be achieved by the procedures as outlined in item 1, above, or that deflections of greater than 1/2" are observed during the "proof rolling" of cohesive soils subgrades, as outlined in item 2, above, additional corrective measures will be required. These measures could include, but not necessarily be limited to, scarification, moisture conditioning, and re-compaction; undercutting & replacement with engineered fill and chemical
- stabilization, etc.. with crushed stone (with or without geotextiles); chemical stabilization, etc. D. It shall be considered as part of the scope of these documents and thus part of this contractor's responsibility to perform scarification and allow for drying of the subgrade per illinois dot standards (scarify a 16" depth for 3 days). If this does not work then additional drying measures shall be an extra to the contract.
- E. Any proposed corrective measures by the contractor should be reviewed by the owner's engineer and the project architect. in the event that in the opinion of the owner's engineer and/or the project architect proof rolling is not a good indicator of the subgrade stability an alternative method shall be specified by the owner's engineer and/or the project architect. Standards for fill areas: A. A "fill" area is defined as any area where material is required to adjust the existing elevation to a proposed subgrade
- elevation. These areas will require the installation of "engineered fill" to achieve design subgrade elevation. "Engineered fill" material can be defined as either "granular" and/or "soil" having their origin for either the construction site and/or "offsite material". Materials having their origin from the construction site is referred to as "borrow". The composition and the compaction standards of the engineered fill for this project will be specified by owner's engineer and the project architect. B. In "fill" areas will borrow materials are allowed to be utilized as engineered fill the site contractor shall compact the borrow to the specified compaction.
- 6. Compaction standards (for engineered fill and back filled areas) A. prior to placement of fill in areas below design grade, the exposed subgrade should be observed by a representative of the owner's engineer to evaluate that adequate stripping has been performed. Additionally, the proof rolling or compacting procedures outlined in the "standards for cut areas" section of this cpi should be performed. It is typical practice to proof roll, and densify if necessary, exposed subgrades prior to filling. If soft or unstable subgrades are observed stabilized or undercut. minimum compaction standards are based upon a percentage of the fill or backfill material's maximum modified proctor dry density (ASTM specification d-557). All engineered subgrades should meet the following minimum
 - compaction: A.1. Areas under foundations bases: A.1.A. 95% standard proctor for all fill placed below foundation base elevation in the building area.
 - A.1.B. areas under floor slabs and above foundations/footing bases:
 - A.1.C. 95% standard proctor for all fill placed more than 12 inches below final grade for support of floor slabs and above foundation base elevation in the building area. A.1.D. 95% standard proctor for fill placed in the upper 12 inches of design subgrade below slabs. The granular fill under the floor slab should be compacted to at least 98% standard proctor.
 - A.2. Areas under pavement sections: A.2.A. 95% standard proctor for all fill placed more than 12 inches below pavement sections and 95% standard proctor for the top 12 inches.
 - A.3. Landscaped areas: A.3.A. 90% standard proctor for all fill placed in landscape areas. These areas should be brought to grade with "topsoil"
 - to a depth of 12 inches in areas to be seeded, 6 inches in areas to be sodded, and 24 inches for all interior curbed landscape islands. A.4. Base course portion of pavement sections:
- A.4.A. 95% standard proctor for all base course materials that are part of a "pavement section". B. Place all backfill and fill materials in layers that are not more than 9" in loose depth. before compacting, moisten or aerate each layer as necessary to provide optimum moisture content. Compact each layer to required percentage of maximum density of the
- Finish grading: A. The term "finish grading" as used herein shall be defined as that condition that areas not receiving a finish product such as parking areas, driveways, roadways, sidewalks, etc. finish graded areas would generally be those areas receiving "landscaping" such as seed, sod, trees, bushes, mulch, etc.
- B. The site contractor is responsible for "finish grading" all areas within the perimeter of the "construction site". The definition of the "construction site" is the area encompassing all disturbed areas that were disturbed as a result of the construction process relating to the general contract which this site contract was part of.

GENERAL PAVING NOTES

Standards and requirements of the City of Rockford.

- 1. All pavement shall be constructed in accordance with the following: A. Concrete pavement shall be constructed in accordance with the Illinois Department of Transportation (IDOT) "Standard Specifications for Road and Bridge Construction" (Standard Specifications), latest edition, including all updates and standards
- Additional details and requirements provided in the contract documents, including this plan set. 2. All proposed pavement areas shall be stripped of all topsoil and unsuitable material and excavated or filled to within 0.10 feet of design
- 3. The subgrade of pavement areas shall be free of all unsuitable material and shall be compacted to a minimum 95 per cent of Standard proctor density.
- 4. The subgrade shall be proof rolled, inspected and approved by the [local agency] prior to placing the base material. Notify the engineer at least 48 hours prior to finished subgrade preparation

subgrade, proof rolled, placing topsoil to a minimum depth of 4 inches to finished grade in the parkways areas only, grading of drainage

swales, and all other tasks as directed by the owner or engineer. The quantities contained in these documents are approximate and estimated, and are presented as a guide to the contractor in

5. The earthwork contractor shall be responsible for removal of spoil material from the underground contractors, preparing the roadway

- determining the scope of work. It is the Contractor's responsibility to determine all quantities and to become familiar with the site and
- 7. The paving Contractor is responsible for the final subgrade preparation, proof rolling, the pavement base, binder, and surface, and all final clean-up and related work associated with the paving operation.
- 8. The proposed pavement shall be of the type and thickness as specified in the engineering drawings, and constructed in strict conformance with the previously referenced IDOT standard specifications and the City of Rockford
- Areas of deficient paving, including compaction, smoothness, thickness, and asphalt mixture, shall be delineated, removed, and replaced in compliance with Specifications requirements unless corrected otherwise as directed and approved by the owner. 10. Field quality control tests specified herein will be conducted by the owner's Independent Testing Laboratory (ITL) at no cost to the
- contractor. Any testing and inspection resulting from the requirements of necessary permits by the City of Rockford or the State of Illinois shall be at the contractor's expense. The contractor shall perform additional testing as considered necessary by the contractor for assurance of quality control. Retesting required as a result of failed initial tests shall be at the contractor's expense. Field testing, frequency, and methods may vary as determined by and between the owner, the ITL and the City of Rockford.
- B. Testing shall be performed on finished surface of each asphalt concrete course for smoothness, using 10'_0" straightedge applied parallel with, and at right angles to centerline of paved area. The following tolerances in 10 ft shall not be exceeded
- Base Course Surface: 1/4-inch, Wearing Course Surface: 1/8-inch. C. No ponding shall occur on paved surfaces. Refer to "General Notes" in this plan set.

ADDITIONAL CONCRETE PAVING NOTES

- 1. Materials shall comply with the following standards of quality:
- A. Portland Cement: ASTM C150 Type I, Normal ASTM C150 Type II, High-Early-Strength. B. Fine Aggregate: ASTM C33, clean sand graded between #100 and #4 sieve limits.
- C. Coarse Aggregate: ASTM C33, uncoated crushed stone or washed gravel. D. Water: Potable and fit to drink.
- E. Water-Reducing Admixture: ASTM C494 Type A (normal) or Type D (retarder).
- F. Air Entraining Agent: ASTM C260. G. Premoulded Filler Strips: ASTM D994.
- H. Curing Compound: ASTM C309, Type 2 (white, pigmented).
- I. Reinforcement: ASTM A615, Grade 40. 2. Physical characteristics shall comply with the following:
- A. Strength: 4,000 PSI compressive strength in 28 days. B. Mix: Minimum 6 bag mix.

- C. Slump: Maximum 4". D. Water to Cement Ratio: Shall not exceed 0.45 by weight.
- E. Air Entrainment: 5%-8%
- 3. All curb and gutter and sidewalk shall be broom finished. All sidewalk shall have picture frame finish. 4. Curing and protection of all concrete shall be in strict conformance with the provisions of Section 1020.13 of the Standard Specifications.
- 4a. All exterior walls and ramps shall be sealed using Hydrozo 100 Sealer. 5. The curb and gutter shall have 1" thick premolded fiber expansion joints with 3/4" - diameter by 18-inches long plain round steel dowel bars at 100-foot intervals, at all PC's and PT's, and at all curb returns. Construction joints shall be constructed at 20-foot intervals. The cost of these joints shall be incidental to the curb and gutter. Curb joints and ties shall be constructed in accordance with IDOT standard

ADDITIONAL CONCRETE PAVING NOTES (CONT)

- 6. All sidewalk, including curb ramps and steps shall be compliant with Local, State, and Federal requirements for accessibility. . Depressed curb shall be provided for curb ramps and at driveway locations in accordance with IDOT standard 606001. 8. Curb ramps shall be constructed in accordance with the IDOT standards. See corresponding standard(s) based on layout and
- 9. Sidewalk shall be a minimum 6" thick through all driveway crossings.
- 10. Concrete Pavement joints shall comply with the following: A. Construct expansion, weakened-plane control (contraction), and construction joints straight with face perpendicular to concrete surface. Construct transverse joints perpendicular to centerline, unless otherwise detailed. a. Provide joints at spacing of 15'-0" on centers, maximum each way. Panels shall be kept as square as possible with
 - the length to width ratio not exceeding 125% unless otherwise noted, construct control joints for depth equal to at least 1/4 of the concrete thickness, as follows: b. Form tooled joints in fresh concrete by grooving top with recommended tool and finishing edge with jointer.
 - c. Form sawed joints using powered saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut joints into hardened concrete as soon as surface will not be torn, abraded, or otherwise damaged by cutting action. Contractor shall sawcut tank farm and island / canopy area to mid-depth within 24 hours of pour.
 - d. Sidewalk contraction joint spacing shall not exceed corresponding width of sidewalk. 12' wide sidewalks shall have a longitudinal contraction joint along the center of the sidewalk and transverse contraction joints shall be spaced at 6'
- e. A diamond edge saw bland shall be used for all required contraction and longitudinal pavement joints. f. All sawcuts required shall be incidental to items for which direct payment is made.
- B. Construction joints: Place construction joints at end of placements and at locations where placement operations are stopped for period of more than 1/2 hour, except where such placements terminate at expansion joints. construct joints in accordance with idot specifications.
- C. Transverse expansion joints: Locate expansion joints at maximum of 180'-0" on centers, maximum each way unless otherwise shown on the construction drawings. provide premolded joint filler for expansion joints abutting concrete curbs, catch basins, manholes, inlets, structures, sidewalks, and other fixed objects. D. Butt joints: For joints against existing pavement, place 16" long dowels eight inches into holes drilled into center of existing slab. epoxy dowels into holes with approved epoxy compound. place dowels prior to concrete placement for
- new concrete. dowel spacing to be 24" on center unless otherwise shown on construction drawings. saw joint and fill with joint sealer. 11. Joint fillers: Extend joint fillers full-width and depth of joint, and not less than 1/2-inch or more than 1-inch below finished
- surface where joint sealer is indicated. furnish joint fillers in 1-piece lengths for full width being placed, wherever possible. Where more than 1 length is required, lace or clip joint filler sections together 12. Joint sealants: All pavement joints shall be sealed with white or gray approved exterior pavement joint sealants and shall

ADDITIONAL ASPHALT PAVING NOTES

be installed in accordance with manufacturer's recommendations.

- A. Apply prime and tack coats when ambient or base surface temperature is above 40 F, and when temperature has been above 35 F for 12 hours immediately prior to application. Do not apply when base is wet, contains excess moisture,
- during rain, or when frozen. B. Construct asphaltic concrete paving when ambient temperature is above 40 F.
- 2. Materials shall comply with the following standards of quality: A. Asphalt Cement: Comply with AASHTO M 226; Table 2 AC_10, AC_20, or AC_40, viscosity grade, depending on local mean annual air temperature in accordance with the following chart: Mean annual air temperature 45 F or lowerAC_10 85/100 pen. Mean annual air temperature between 45 F and 75 F AC_20 60/70 pen. Mean annual air temperature AC_40 75 F or higher
- B. Prime Coat: Medium curing cut_back asphalt or asphalt penetrating prime coat consisting of either MC_30 or SS_1h. C. Tack Coat: Emulsified asphalt; AASHTO M 140 or AASHTO M 208, SS_1h, CSS_1, or CSS_1h, diluted with 1 part water to 1 part emulsified asphalt.
- D. Mineral Filler: Rock or slag dust, hydraulic cement, or other inert material complying with AASHTO M 17, if recommended by state highway department specifications. E. Asphalt_Aggregate Mixture: Unless otherwise noted on the Drawings, design mix shall have minimum stability based on 75_blow Marshall complying with AASHTO T 245 of 1000 pounds with flow between 0.08 and 0.16 inches. The design mix shall be within sieve analysis and bitumen ranges specified below unless approved otherwise by the engineer prior to
- placement. Mix design shall comply with the following: A. Base Course: Illinois Department of Transportation (IDOT) approved mix for Hot-Mix Asphalt Surface Course, Mix "C",
- B. Surface (Wearing) Course: Illinois Department of Transportation (IDOT) approved mix for Hot-Mix Asphalt Binder Course, II -12.5. N50.
- 4. Establish and maintain required lines and elevations. 5. Cover the surfaces of curbs, gutters, manholes and other structures on which the asphaltic concrete mixture will be placed, with a thin, uniform coat of liquid asphalt. Where the asphaltic concrete mixture will be placed against the vertical face of an existing pavement, clean the vertical face to remove foreign substances and apply a coating of liquid asphalt at a rate of approximately 0.25 gallons per square yard.

3. Remove loose material from compacted base material surface immediately before applying prime coat.

- Prime Coat: A. Apply to base material surfaces at least 24 hours in advance. B. Apply at minimum rate of 0.25 gal per sq. yd over compacted base material. Apply to penetrate and seal, but not flood
- C. Take necessary precautions to protect adjacent areas from over spray. D. Cure and dry as long as necessary to attain penetration of compacted base and evaporation of volatile substances.
- Tack Coat: A. Apply to contact surfaces of previously constructed asphaltic concrete base courses or Portland cement concrete and surfaces abutting or projecting into asphaltic concrete or into asphaltic concrete pavement. B. Apply tack coat to asphaltic concrete base course or sand asphalt base course. Apply emulsified asphalt tack coat between each lift or layer of full depth asphaltic concrete and sand asphalt bases and on surface of bases where asphaltic
- C. Apply at minimum rate of 0.05 gal per sq. yd of surface. D. Allow drying until at proper condition to receive paving. 8. Place asphaltic concrete mixture on completed compacted subgrade surface, spread, and strike off. Spread mixture at following minimum ambient temperatures:
- E. Between 40 and 50 F: Mixture temperature: 285 F F. Between 50 and 60 F: Mixture temperature: 280 F

concrete paving will be constructed.

- G. Higher than 60 F: Mixture temperature: 275 F a. Whenever possible, spread pavement by finishing machine; however, inaccessible or irregular areas may be placed by hand methods. Spread hot mixture uniformly to required depth with hot shovels and rakes. After spreading, carefully smooth hot mixture to remove segregated course aggregate and rake marks. Rakes and lutes used for hand spreading shall be type designed for use on asphalt mixtures. Do not dump loads faster that they can be properly spread. Workers shall not stand on loose mixture while spreading.
- b. Paving Machine Placement: Apply successive lifts of asphaltic concrete in transverse directions with surface course placed parallel to flow of traffic. Place asphaltic paving in typical strips not less than 10'-0" wide. Asphaltic concrete pavement, including base and surface course, shall be placed in two or more equal lifts. Each lift shall be from 1 to 3
- c. Joints: Make joints between old and new pavements, or between successive days and work in manner that will provide continuous bond between adjoining work. Construction joints shall have same texture, density, and smoothness as other sections of asphaltic concrete course. Clean contact surfaces of joints and apply tack coat. 9. After being spread, mixture shall be compacted by rolling as soon as it will bear the weight of rollers without undue displacement. Number, weight, types of rollers, and sequences of rolling operations shall be such that the required density
- and surface are consistently attained while the mixture is in workable condition. 10. Compact mixture with hot hand tampers or vibrating plate compactors in areas inaccessible to rollers. 11. Breakdown Rolling: Perform breakdown or initial rolling immediately following rolling of joints and outside edge. Check surface after breakdown rolling and repair displaced areas by loosening and filling with hot material.
- 12. Second Rolling: Follow breakdown rolling as soon as possible while mixture is hot. Continue second rolling until mixture has been thoroughly compacted as follows: 13. Average Density: 96 percent of reference laboratory density according ASTM D1556, but not less than 94 percent nor greater than 100 percent. A. Finish Rolling: Perform finish rolling while mixture is still warm enough for removal of roller marks. Continue rolling until
- roller marks are eliminated and course has attained maximum density. B. Patching: Remove and replace paving areas mixed with foreign materials and defective areas. Cut out such areas and fill with fresh, hot asphaltic concrete. Compact by rolling to maximum surface density and smoothness. C. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked. Any masked or marred finish surfaces shall be repaired or smoothed.
- 14. Asphalt paving joints shall conform to the following requirements: A. Place each asphaltic paving layer as continuous as possible to keep the number of joints to a minimum. Create joints between old and new pavement, between successive days work, and where the mixture has become cold (less than 140 degrees F). Make these joints in such a manner as to create a continuous bond between the old and new pavement construction courses.
- B. Offset joint of successive courses by at least 6 inches. d. Transverse Joints: If placing of material is discontinued or if material in place becomes cold, make a joint running perpendicular to the direction traveled by the paver. Before placement continues, trim the edge of the previously placed pavement to a straight line perpendicular to the paver and cut back to expose an even vertical surface for the full thickness of the course. When placement continues, position the paver on the transverse joint so that sufficient hot mixture will be spread in order to create a joint after rolling that conforms to the required smoothness. If the temperature of the previously placed pavement material drops below 140 degrees F before paving is resumed, give
- the exposed vertical face a thin coat of liquid asphalt just before paving is continued. e. Longitudinal Joints: Coat longitudinal joints that are not completed before the previously laid mixture has cooled to a

temperature below 140 degrees F, with liquid asphalt just before paving is continued

PAVEMENT MARKING NOTES

- 1. Apply two (2) coats for all pavement markings. 2. Material description: a fast drying, high hiding marking paint for concrete, brick and bituminous surface. this product has been designed for painting centerlines and edgelines of highways, city crosswalks and stop zones, parking lots, traffic aisles, etc. Do not apply to in temperatures below 50 F.
- Paint properties: Pigment 4991 yellow -- lead-free organic yellow min. 4.8% titanium dioxide min. 2.8 % calcium carbonate max.
- B. the percentage pigment by weight of the finished product shall not be less than 50% no more than 54%. (ASTM
- Vehicle: the non-volatile portion of the vehicle shall be composed of a 100% acrylic polymer and shall not be less than 44% by weight. ASTM d2697)
- Organic volatiles: the finished paint shall contain less than 150 grams of volatile organic matter per liter of total paint. (ASTM d3960)
- Total solids: the finished paint shall not be less than 73% total non-volatile by weight. (ASTM d2369) Grind: the paint shall have a grind of not less than 3 on a hegman grind gauge. (ASTM d210)

when tested in accordance within federal specification tt-p-1952b, section 4.5.8.

time not greater than 15 minutes when tested in accordance with ASTM d1640.

- Viscosity: the consistency of the paint shall not be less than 83 nor more than 98 kreb units at 77° F. (ASTM d562) Freeze / Thaw stability: the paint shall show no coagulation or change in consistency greater than 10 kreb units after 3 cycles. (ASTM d2243) Heat stability: the paint shall show no coagulation, discoloration, or change in consistency greater than 10 kreb units
- Storage stability: after 30 days storage in a three quarters filled, closed container, the paint shall show no caking, skinning, livering, curdling, biological growth, or hard settling. the viscosity shall not change more than 5 kreb units from the original sample. No pick-up time: the no pick-up time shall be less than 10 minutes. the test shall follow the requirements of ASTM
- d711 with a wet film thickness of 0.38 mm (15 mils). Dry through time: the paint, when applied to a non-absorbent substrate at a wet film thickness of 0.38 mm (15 mils) and placed in a humidity chamber controlled at 90 +/-5% r.h. and 72.5° +/- 1.4° F shall have a dry through

STORM SEWER NOTES

- 1. Storm sewer shall be constructed in accordance with the following: A. "Standard Specifications for Water and Sewer Main Construction in Illinois" (Standard Specifications), fifth edition
 - dated May 1996, and all revisions and supplements thereto. B. Concrete pavement shall be constructed in accordance with the Illinois Department of Transportation (IDOT) "Standard Specifications for Road and Bridge Construction" (Standard Specifications), latest edition, including all
 - updates and standards thereto. Standards and requirements of City of Rockford. Additional details and requirements provided in the contract documents, including this plan set.
 - Where criteria of the aforementioned specifications conflict, the more stringent criteria shall be implemented. 2. Material Specifications. All storm sewer system elements shall conform to the following specifications: A. Sewer Pipe. All storm sewer pipe shall be reinforced concrete pipe unless otherwise specifically noted in this plan set.
 - a. Sump pump service connection and storm sewer extension (4" and 6")--ABS sewer pipe or PVC sewer pipe ASTM D2751, SDR35, or ASTM D3034, SDR35, respectively.

 - b. Concrete sewer pipe (10" diameter and smaller), minimum Class 3, ASTM C14. c. Reinforced concrete pipe (12" diameter and larger), circular reinforcement, minimum Class 3, wall B, ASTM C76. d. Reinforced concrete arch culvert pipe--double line reinforcement, minimum Class 3, ASTM C506.
 - e. Reinforced concrete elliptical culvert pipe--minimum Class HE-III or VE-III, ASTM C507. f. PVC underdrain pipe (4" and 6")--ASTM D2729, SDR35.
 - g. Galvanized corrugated steel culvert pipe AASHTO M246, Type B, minimum wall thickness 14 gauge (shall only be used for culverts). B. Sewer Pipe Joints.
 - a. ABS pipe--ASTM C443. b. PVC pipe--ASTM D3212, push-on type, except underdrain pipe which shall have solvent welded joints. Reinforced concrete pipe--ASTM C443 ("O" ring).
 - Reinforced arch or elliptical pipe--ASTM C877 Casing Pipes. Steel pipe--ASTM A120, 3/8" minimum thickness.

a. Precast reinforced concrete--ASTM C478.

- Manholes and Catch Basins.
- c. For sewer eighteen inches in diameter or less, manhole shall have a forty-eight inches inside diameter. d. For sewer twenty-one to thirty-six inches in diameter, manhole shall have a sixty inch inside diameter. e. For sewer greater than thirty-six inches in diameter, manhole shall have an offset riser pipe of forty-eight inches
- f. Adjustment: No more than two precast concrete adjusting rings with six inch maximum height adjustment shall g. Pipe and frame seals: All pipe connection openings shall be precast with resilient rubber watertight pipe to
- manhole sleeves or seals. External flexible watertight sleeves shall also extend from the manhole cone to the h. Bottom sections: All bottom sections shall be monolithically precast including bases and invert flowlines.
- a. Precast reinforced concrete--ASTM C478 and ASTM C443.

b. Size: Inlets shall have a twenty-four inch inside diameter and a maximum depth of four feet.

- c. Adjustment: No more than two precast concrete adjusting rings with six inch maximum height adjustment shall d. Only one pipe connection is allowed, and it shall be precast with resilient rubber watertight pipe to manhole sleeves or seals. External flexible watertight sleeves shall also extend from the manhole cone to the manhole
- e. Bottom sections: All bottom sections shall be monolithically precast including bases and invert flowlines. Manhole frame and cover--Use area inlet as listed below unless specified as a "closed lid" in this plan set. Closed lid
- frame and covers shall be Neenah No. R-1772-C embossed "STORM SEWER". a. Manhole steps--Neenah No. R-1981-I b. Six inch curb and gutter inlet--Neenah No. R-3502-B.
- c. Three inch curb and gutter inlet--Neenah No. R-3501-P. d. Yard inlet--Neenah No. R-2579.
- e. Parking lot inlet--Neenah No. R-2077-C. G. Crushed Granular Bedding (Exhibit No. 202). Crushed gravel or crushed stone course aggregate--ASTM C33, Size No.
- 3. All end sections 24" and greater shall come equipped with trash grate and toe block in compliance with Illinois Department of Transportation standard. 4. Inspect pipe for defects and cracks before being lowered into the trench, piece by piece. Remove and replace defective, damaged or unsound pipe or pipe that has had its grade disturbed after laying. Protect open ends with a stopper to prevent earth or other material from entering the pipe during construction. Remove dirt, excess water, and other foreign materials
- from the interior of the pipe during the pipe laying progress. Install pipe in accordance with manufacturer's written recommendations. 6. Commence installation at the lowest point for each segment of the route. Lay RCP with the groove or bell end up-stream.
- 7. Lay pipe to the required line and slope gradients with the necessary fittings, bends, manhole, risers and other appurtenances placed at the required location as noted on Drawings. 8. All storm sewers under and within two feet of any existing or proposed pavement shall be backfilled with granular backfill
- material IDOT gradation FA-6 or approved equal. (Grade 8 or Grade 9). 9. Compact backfill to 98 percent of maximum density in accordance with ASTM D698, (or 95 percent of maximum density, in accordance with ASTM D1557) obtained at optimum moisture as determined by AASHTO T180.
- 10. Do not backfill trenches until required tests are performed and utility systems comply with and are accepted by applicable 11. Backfill trenches to contours and elevations shown on the drawings

SEEDING REQUIREMENTS

1. GROWING MEDIA

IMPORTED TOPSOIL: NATURAL, FERTILE AGRICULTURAL SOIL CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, FROM WELL DRAINED SITE FREE FROM FLOODING, NOT IN FROZEN OR MUDDY CONDITION, NOT LESS THAN 6% ORGANIC MATTER, AND PH VALUE OF 5.9 TO 7.0. FREE FROM SUBSOIL, SLAG, CLAY, STONES, LUMPS, LIVE PLANTS, ROOTS, STICKS, CRABGRASS, COUGH GRASS, NOXIOUS WEEDS AND FOREIGN MATTER.

EXISTING TOPSOIL: NATURAL, FERTILE AGRICULTURAL SOIL CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, NOT IN FROZEN OR MUDDY CONDITION, CONTAINING NOT LESS THAN 6% ORGANIC MATTER, AND CORRECTED TO PH VALUE OF 5.9 TO 7.0. FREE FROM SUBSOIL, SLAG, CLAY, STONES, LUMPS, LIVE PLANTS, ROOTS, STICKS, CRABGRASS, COUGH GRASS, NOXIOUS WEEDS AND FOREIGN MATTER.

PERCENTAGES OF EACH NUTRIENT BY WEIGHT SHALL BE 10% NITROGEN, 6% OF AVAILABLE PHOSPHORIC ACID AND 4% WATER SOLUBLE POTASH, OR ANY OTHER MIXTURE HAVING AN ANALYSIS FOR THESE NUTRIENTS IN THE RATIO OF 5-3-2.

FERTILIZER: COMPLY WITH IDOT SPECIFICATION, ARTICLE 1081.08.

- AGRICULTURE GROUND LIMESTONE: COMPLY WITH IDOT SPECIFICATION ARTICLE 1081.07. 2. SEED. COMPLY WITH THE IDOT SPECIFICATION, REFERENCE ARTICLES
- SEEDS: 1081.04. SEEDING MIXTURES: 250.07 CLASS 1
- 3. ACCESSORIES
- MULCHING MATERIAL: SEE HYDRAULICALLY-APPLIED EROSION CONTROL FOR MULCHING.
- 4. DELIVERY, STORAGE & HANDLING DELIVER GRASS SEED IN ORIGINAL CONTAINERS SHOWING ANALYSIS OF SEED MIXTURE, PERCENTAGE OF PURE SEED, YEAR OF PRODUCTION, NET WEIGHT, DATE OF PACKAGING AND LOCATION OF PACKAGING. DAMAGED PACKAGES ARE NOT ACCEPTABLE DELIVER FERTILIZER IN WATERPROOF BAGS SHOWING WEIGHT, CHEMICAL ANALYSIS, AND MANUFACTURER'S NAME. DELIVER ALL PRODUCTS IN SUFFICIENT QUANTITY AND TIME TO MAINTAIN APPROVED CONSTRUCTION SCHEDULE, AS
- AMENDED. STORE ALL PRODUCTS OFF THE GROUND, IN A DRY LOCATION, OUT OF WAY OF CONSTRUCTION OPERATIONS. PROVIDE PROTECTION TO PREVENT DAMAGE UNTIL INSTALLED. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR HANDLING.
- EXECUTION
- A. PREPARATION. COMPLY WITH IDOT SPECIFICATIONS 250.01 THROUGH 250.07. EXAMINE EXISTING CONDITIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ALL CONDITIONS THAT WOULD IMPAIR PROPER PERFORMANCE OF THE WORK. CONFIRM NOTIFICATION IN WRITING. STATE OF WORK, OR FAILURE TO GIVE NOTIFICATIONS, CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS.
- PROTECT EXISTING UNDERGROUND IMPROVEMENTS FROM DAMAGE. REMOVE ALL FOREIGN MATERIALS, PLANTS, ROOTS, STONES, STICKS, AND DEBRIS FROM SITE. DO NOT BURY FOREIGN MATERIAL REMOVE CONTAMINATED SUBSOIL. CULTIVATE AREAS TO RECEIVE TOPSOIL TO DEPTH OF 3 INCHES. REPEAT CULTIVATION IN AREAS WHERE EQUIPMENT
- HAS COMPACTED SUBGRADE. B. FERTILIZING APPLY FERTILIZER AT A BULK RATE OF 10 LBS. PER 1,000 SQ. FT. APPLY AGRICULTURAL GROUND LIMESTONE AT A
- DO NOT APPLY GRASS SEED AND FERTILIZER AT SAME TIME, IN SAME MACHINE. LIGHTLY WATER TO AID BREAKDOWN OF FERTILIZER AND TO PROVIDE MOIST SOIL FOR SEED. C. SEEDING SEED ALL AREAS DISTURBED BY CONSTRUCTION. APPLY SEED AT A RATE OF 150 LBS PER ACRE EVENLY IN TWO PERPENDICULAR INTERSECTING DIRECTIONS. RAKE IN
- DO NOT SOW IMMEDIATELY FOLLOWING RAIN, WHEN GROUND IS TOO DRY OR DURING WINDY PERIODS. ROLL SEEDED AREAS WITH ROLLER NOT EXCEEDING 112 LBS. APPLY WATER WITH FINE SPRAY IMMEDIATELY AFTER EACH AREA HAS BEEN SOWN.
- D. MULCHING SEE HYDRAULICALLY-APPLIED EROSION CONTROL FOR MULCHING

RATE OF 2 TONS PER ACRE.

- E. MAINTENANCE MAINTAIN SURFACES; SUPPLY ADDITIONAL TOPSOIL IN LOW AREAS, INCLUDING AREAS AFFECTED BY EROSION.
- WATER TO ENSURE UNIFORM SEED GERMINATION AND TO KEEP SURFACE OF SOIL DAMP. APPLY WATER SLOWLY SO THAT SURFACE OF SOIL WILL NOT PUDDLE AND CRUST. REPLANT DAMAGED AREAS SHOWING ROOT GROWTH FAILURE, DETERIORATION, BARE OR THIN SPOTS, AND
- ERODED AREAS. MAINTENANCE PERIOD SHALL EXTEND TO THE LONGEST DURATION AS REPRESENTED FROM THE TIME OF SEEDING TO ONE OF THE FOLLOWING THREE TERMINATION SCENARIOS: 28 DAYS, TO THE SECOND MOWING OF ESTABLISHED GRASS, OR TO FINAL ACCEPTANCE OF SEEDING AND RESTORATION UPON COMPLETION OF THE PROJECT BY THE OWNER.

GENERAL NOTES

HYDRAULICALLY-APPLIED EROSION CONTROL

1.01 SUMMARY

- A. THIS SECTION SPECIFIES A HYDRAULICALLY-APPLIED EROSION CONTROL PRACTICE COMPOSED OF LONG STRAND, THERMALLY REFINED (WITHIN A PRESSURE VESSEL) WOOD FIBERS THAT HAVE BEEN PRESSURE TREATED TO 80 - 85 PSI (552 - 586 KPA) WITH STEAM AND HEAT TREATED FOR 15 MINUTES AT 380 - 440 DEGREES FAHRENHEIT (193 - 226 DEGREES CELSIUS) CRIMPED, INTERLOCKING MAN-MADE FIBERS AND PERFORMANCE-ENHANCING ADDITIVES. THE FLEXTERRA FLEXIBLE GROWTH MEDIUM (FGM) REQUIRES NO CURING PERIOD AND LIPON APPLICATION FORMS AN INTIMATE BOND WITH THE SOIL SURFACE TO CREATE A CONTINUOUS, POROUS, ABSORBENT AND FLEXIBLE EROSION RESISTANT BLANKET THAT ALLOWS FOR RAPID GERMINATION AND ACCELERATED PLANT GROWTH.
- A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS. INCLUDE REQUIRED SUBSTRATE PREPARATION, LIST OF MATERIALS AND APPLICATION RATE. B. CERTIFICATIONS: MANUFACTURER SHALL SUBMIT A LETTER OF CERTIFICATION THAT THE PRODUCT MEETS OR EXCEEDS ALL PHYSICAL
- PROPERTY, ENDURANCE, PERFORMANCE AND PACKAGING REQUIREMENTS. THE SALES REP MUST BE CRESC CERTIFIED AND PRODUCE THEIR CERTIFICATION NUMBER. THE REP MUST HAVE 10 YEARS EXPERIENCE WITH EROSION CONTROL AND MUST BE ON SITE DURING INSTALLATION TO APPROVE THE CONTRACTORS WORK. 1.03 DELIVERY, STORAGE AND HANDLING
- A. DELIVER MATERIALS AND PRODUCTS IN UV AND WEATHER-RESISTANT FACTORY LABELED PACKAGES. STORE AND HANDLE IN STRICT COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. PROTECT FROM DAMAGE, WEATHER, EXCESSIVE TEMPERATURES AND CONSTRUCTION OPERATIONS. PRODUCTS
- 2.01 ACCEPTABLE SUPPLIER A. ERO-TEX 866 437 6839 2.02 MATERIALS A. THE MATRIX SHALL BE FLEXTERRA AND CONFORM TO THE FOLLOWING PROPERTY VALUES WHEN UNIFORMLY APPLIED AT A RATE OF 3000

POUNDS PER ACRE (3900 KILOGRAMS/HECTARE) UNDER LABORATORY CONDITIONS.

Property	Test Method	Req. Value (English)	Req. Value (SI)
Physical			1
Mass Per Unit Area	ASTM D6566 ¹	11.5 oz/yd² minimum	390 g/m² minimum
Thickness	ASTM D6525 ¹	0.19 inch minimum	4.8 mm. minimum
Ground Cover	ASTM D6567 ¹	99% minimum	99% minimum
Water Holding Capacity	ASTM D7367	1500% minimum	1500% minimum
Color	Observed	Green	Green
Endurance			
Functional Longevity ²	Observed	Up to 18 months	Up to 18 months
Performance			
Cover Factor ³	Large Scale Testing ⁵	0.005 maximum	0.005 maximum
% Effectiveness ⁴	Large Scale Testing ⁵	99.5% minimum	99.5% minimum
Cure time	Observed	0 - 2 hours	0 - 2 hours
Vegetation Establishment	ASTM D7322 ¹	800 % minimum	800 % minimum

1. ASTM TEST METHODS DEVELOPED FOR ROLLED EROSION CONTROL PRODUCTS AND HAVE BEEN MODIFIED TO ACCOMMODATE HYDRAULICALLY-APPLIED EROSION CONTROL

A. ALL COMPONENTS OF THE FGM SHALL BE PRE-PACKAGED BY THE MANUFACTURER TO ASSURE BOTH MATERIAL PERFORMANCE AND

- FUNCTIONAL LONGEVITY IS THE ESTIMATED TIME PERIOD, BASED UPON FIELD OBSERVATIONS, THAT A MATERIAL CAN BE ANTICIPATED TO PROVIDE EROSION CONTROL AND AGRONOMIC BENEFITS AS INFLUENCED BY COMPOSITION, AS WELL AS SITE-SPECIFIC CONDITIONS, INCLUDING; BUT NOT LIMITED TO - TEMPERATURE, MOISTURE, LIGHT CONDITIONS, SOILS, BIOLOGICAL ACTIVITY, VEGETATIVE ESTABLISHMENT AND OTHER ENVIRONMENTAL FACTORS.. OVER FACTOR IS CALCULATED AS SOIL LOSS RATIO OF TREATED SURFACE VERSUS AN UNTREATED CONTROL SURFACE
- % EFFECTIVENESS = ONE MINUS COVER FACTOR MULTIPLIED BY 100%. LARGE SCALE TESTING CONDUCTED AT UTAH WATER RESEARCH LABORATORY AND TEXAS TRANSPORTATION INSTITUTE. FOR SPECIFIC TESTING INFORMATION PLEASE CONTACT A PROFILE TECHNICAL SERVICE REPRESENTATIVE AT 866-325-6262.
- COMPLIANCE WITH THE FOLLOWING VALUES. NO CHEMICAL ADDITIVES WITH THE EXCEPTION OF FERTILIZER, LIMING AND BIOSTIMULANT MATERIALS SHOULD BE ADDED TO THIS PRODUC THERMALLY PROCESSED (WITHIN A PRESSURE VESSEL) WOOD FIBER - 75% + 3% a) HEATED TO A TEMPERATURE GREATER THAN 380 DEGREES FAHRENHEIT (193 DEGREES CELSIUS) FOR 15 MINUTES AT A PRESSURE GREATER THAN 80 PSI (552 KPA) PROPRIETARY CROSSLINKED HYDRO-COLLOIDAL TACKIFIER - 10% ± 1%
- MOISTURE CONTENT 10% + 3% A. BAGS: NET WEIGHT - 50 LB, UV AND WEATHER-RESISTANT PLASTIC FILM

PERFORMANCE, APPLY FGM IN A TWO-STEP PROCESS*:

PROPRIETARY CRIMPED, INTERLOCKING FIBERS - 5% + 1%

PALLETS: WEATHER-PROOF, STRETCH-WRAPPED WITH UV RESISTANT PALLET COVER

PALLET QUANTITY: 40 BAGS/PALLET OR 1 TON/PALLET EXECUTION

- 3.01 SUBSTRATE AND SEEDBED PREPARATION A. EXAMINE SUBSTRATES AND CONDITIONS WHERE MATERIALS WILL BE APPLIED. APPLY PRODUCT TO GEOTECHNICALLY STABLE SLOPES THAT HAVE BEEN DESIGNED AND CONSTRUCTED TO DIVERT RUNOFF AWAY FROM THE FACE OF THE SLOPE. DO NOT PROCEED WITH INSTALLATION UNTIL SATISFACTORY CONDITIONS ARE ESTABLISHED. B. DEPENDING UPON PROJECT SEQUENCING AND INTENDED APPLICATION, SEED CAN BE APPLIED TO SOIL SURFACE USING A MECHANICAL
- SEEDER AND/OR ADDED INTO THE HYDRO-SEEDING TANK DEPENDING ON THE SLOPE ANGLE. A. STRICTLY COMPLY WITH EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS. USE APPROVED HYDRO-SPRAYING MACHINES WITH FAN-TYPE NOZZLE (50-DEGREE TIP). TO ACHIEVE OPTIMUM SOIL SURFACE COVERAGE, APPLY FGM FROM OPPOSING DIRECTIONS TO SOIL SURFACE. ROUGH SURFACES (ROCKY TERRAIN, CAT TRACKS AND RIPPED SOILS) MAY REQUIRE HIGHER APPLICATION RATES TO ACHIEVE 100% COVER, SLOPE INTERRUPTION DEVICES OR WATER DIVERSION TECHNIQUES ARE RECOMMENDED WHEN SLOPE LENGTHS EXCEED 100 FEET (30 M). MAXIMUM SLOPE LENGTH IS FOR PRODUCT APPLICATIONS ON A 3H:1V SLOPE. FOR APPLICATION ON STEEPER SLOPES, SLOPE INTERRUPTION LENGTHS MAY NEED TO BE DECREASED BASED ON ACTUAL SITE CONDITIONS. NOT RECOMMENDED FOR CHANNELS OR AREAS WITH CONCENTRATED WATER FLOW. THIS PRODUCT MAY BE APPLIED ON SATURATED SOILS AND DOES NOT REQUIRE A CURING PERIOD TO BE EFFECTIVE. NO CHEMICAL ADDITIVES WITH THE EXCEPTION OF FERTILIZER, LIMING AND BIOSTIMULANT MATERIALS SHOULD BE ADDED TO THIS PRODUCT.
- 1. STEP ONE: APPLY FERTILIZER WITH SPECIFIED PRESCRIPTIVE AGRONOMIC FORMULATIONS AND 50% OF SEED WITH A SMALL AMOUNT OF FGM 2. STEP TWO: MIX BALANCE OF SEED AND APPLY FGM AT A RATE OF 50 LB PER 125 GALLONS (23 KG/475 LITERS) OF WATER OVER FRESHLY SEEDED

B. FOR EROSION CONTROL AND REVEGETATION: TO ENSURE PROPER APPLICATION RATES, MEASURE AND STAKE AREA. FOR MAXIMUM

- SURFACES. CONFIRM LOADING RATES WITH EQUIPMENT MANUFACTURER. DO NOT LEAVE SEEDED SURFACES UNPROTECTED, ESPECIALLY IF PRECIPITATION IS IMMINENT *DEPENDING UPON SITE CONDITIONS FGM MAY BE APPLIED IN A ONE-STEP PROCESS WHERE ALL COMPONENTS MAY BE MIXED TOGETHER IN SINGLE TANK LOADS, CONSULT WITH MANUFACTURER FOR FURTHER DETAILS -BEST RESULTS AND MORE RAPID CURING ARE ACHIEVED AT TEMPERATURES EXCEEDING 60°F (15°C). CURING TIMES MAY BE ACCELERATED IN HIGH TEMPERATURE, LOW HUMIDITY CONDITIONS WITH PRODUCT APPLIED ON DRY SOILS.
- OVER-APPLICATION OF PRODUCT MAY INHIBIT GERMINATION AND PLANT GROWTH. C. MIXING: A MECHANICALLY AGITATED HYDRAULIC-APPLICATION MACHINE IS STRONGLY RECOMMENDED: FILL 1/3 OF MECHANICALLY AGITATED HYDROSEEDER WITH WATER. TURN PUMP ON FOR 15 SECONDS AND PURGE AND PRE-WET LINES. TURN
- TURN AGITATOR ON AND LOAD LOW DENSITY MATERIALS FIRST (I.E. SEED). CONTINUE SLOWLY FILLING TANK WITH WATER WHILE LOADING FIBER MATRIX INTO TANK.
- CONSULT APPLICATION AND LOADING CHARTS TO DETERMINE NUMBER OF BAGS TO BE ADDED FOR DESIRED AREA AND APPLICATION RATE. MIX AT A RATE OF 50 LB OF FGM PER 125 GALLONS (23 KG/475 LITERS). CONTACT EQUIPMENT MANUFACTURER TO CONFIRM OPTIMUM MIXING RATES. ALL FGM SHOULD BE COMPLETELY LOADED BEFORE WATER LEVEL REACHES 75% OF THE TOP OF TANK TOP OFF WITH WATER AND MIX UNTIL ALL FIBER IS FULLY BROKEN APART AND HYDRATED (MINIMUM OF 10 MINUTES --"INCREASE MIXING TIME WHEN APPLYING IN COLD CONDITIONS). THIS IS VERY IMPORTANT TO FULLY ACTIVATE THE BONDING ADDITIVES AND TO OBTAIN PROPER

SHUT OFF RECIRCULATION VALVE TO MINIMIZE POTENTIAL FOR AIR ENTRAINMENT WITHIN THE SLURRY.

controls the physical construction on a contemporary basis at the site.

local government agency, as a condition of the permit.

completion of his work.

and 0.10 of a foot for unpaved areas.

SLOW DOWN AGITATOR AND START APPLYING WITH A 50-DEGREE FAN TIP NOZZLE.

SPRAY IN 2 OPPOSING DIRECTIONS FOR MAXIMUM SOIL COVERAGE

APPLICATION RATES: THE APPLICATION RATE FOR THIS PROJECT WILL BE 3000 LBS PER ACRE MINIMUM IN BASIN AND ALL SLOPES OF 4:1 OR STEEPER THAN 4:1. AN APPLICATION RATE OF 2000 LB PER ACRE MINIMUM MAY BE APPLIED IN ALL OTHER DISTURBED AREAS. ANY AREAS THAT ARE DISTURB AFTER APPLICATION SHALL BE REPAIRED WITHIN 12 HRS.

EXTERIOR OF THE MACHINE AND REMOVE ANY SLURRY SPILLS. ONCE DRY, MATERIAL WILL BE MORE DIFFICULT TO REMOVE. B. CLEAN SPILLS PROMPTLY. ADVISE OWNER OF METHODS FOR PROTECTION OF TREATED AREAS. DO NOT ALLOW TREATED AREAS TO BE

3.03 CLEANING AND PROTECTION

ADD FERTILIZER

GENERAL NOTES 1. The designs represented in these plans are in accordance with established practices of civil engineering for the design functions and uses intended by the owner at this time. Neither the engineer nor its personnel can or do warrant these designs or plans as constructed except in the specific cases where the engineer inspects and

A. AFTER APPLICATION, THOROUGHLY FLUSH THE TANK, PUMPS AND HOSES TO REMOVE ALL MATERIAL. WASH ALL MATERIAL FROM THE

2. The contractor, by agreeing to perform the work, agrees to indemnify and hold harmless the owner, the engineer, the county, and all agents and assigns of those parties, from all suits and claims arising out of the performance of said work, and further agrees to defend or otherwise pay all legal fees arising out of the defense 3. In accordance with generally accepted construction practices, the contractor shall be solely and completely

responsible for conditions of the job site, including safety of all persons and property during performance of the

control devices to include temporary striping, flagmen, barricades, warning signs, and warning lights shall be in

work. This requirement will apply continuously and not be limited to normal working hours. Any construction

- observation by the engineer of the contractor's performance is not intended to include review of the adequacy of the contractors safety measures, in, or near the construction site. The contractor is responsible for maintaining adequate signs, barricades, fencing, traffic control devices and measures, and all other measures that are necessary to protect the safety of the site at all times.
- accordance with current MUTCD and IDOT standards. 5. All phases of the site work for this project shall meet or exceed industry standards and requirements set forth by the the owner's Description of Work, City of Rockford, the State of Illinois, and this plan set.

6. RPS 205 must be notified at least two (2) working days prior to the commencement or resumption of any work.

7. The contractor shall coordinate all permit and inspection requirements with responsible local, state, and federal

9. The contractor will be held solely responsible for and shall take precautions necessary to avoid property damage

4. Maintain access for vehicular and pedestrian traffic as required for other construction activities. Use traffic

- agencies. The contractor shall include the costs of this coordination and all inspection fees in the bid price. 8. All work performed by the contractor shall come with a warranty against defects in workmanship and materials This warranty period shall run concurrent with the required warranty periods the owner must provide to each
- to adjacent properties during the construction of this project. 10. All structures, inlets, pipes, swales, roads and public egresses must be kept clean and free of dirt and debris at 11. The contractor shall field verify the elevations of the benchmarks prior to commencing work. The contractor shall
- property lines. Notify the engineer of discrepancies in either vertical or horizontal control prior to proceeding. 12. All elevations are on NAVD 88 datum. 13. Parking areas designated as A.D.A. and all sidewalk shall be compliant with state and local A.D.A. requirements.

also field verify the location and elevation of existing pipe inverts, curb or pavement where matching into

existing work. The contractor shall field verify horizontal control by referencing property corners to known

- 14. Tactile warning plates per IDOT specifications shall be placed at all locations where sidewalk that is to be replaced intersects public roads and at locations indicated in this plan set. 15. The contractor shall verify the location of all utilities in the field prior to construction. This includes sanitary
- sewer, water main, storm sewer, telephone, gas, and electric, if any. The J.U.L.I.E. number is 1-800-892-0123. 16. Property corners shall be carefully protected until they have been referenced by a Professional Land Surveyor. 17. The contractor shall keep careful measurements and records of all construction and shall furnish the Engineer,

the Owner and the Village with record drawings in a digital format compatible with AutoCAD Release 2013 upon

ponding shall occur. Tolerances to be observed will be measured to the nearest 0.04 of a foot for paved surfaces

- 18. Any excess dirt or materials shall be placed by the contractor onsite at the owner's direction or as indicated on the plans. 19. Finish grade shall in all areas not specifically reserved for storm water management shall drain freely. No
- 20. The contractor shall notify the Independent Testing Lab (ITL) 24 hr prior to testing being required. Testing Service Corp. (TSC) is the approved ITL for this project. The contact at TSC is Jeff Martin and he can be reached at 815.394.2562 or jmartin@tsccorp.com.

HAGNEY ARCHITECTS

Architecture, Planning, & Interior Design

4615 E. State St. Suite 206

Rockford, Illinois 61108



RESOURCES INC

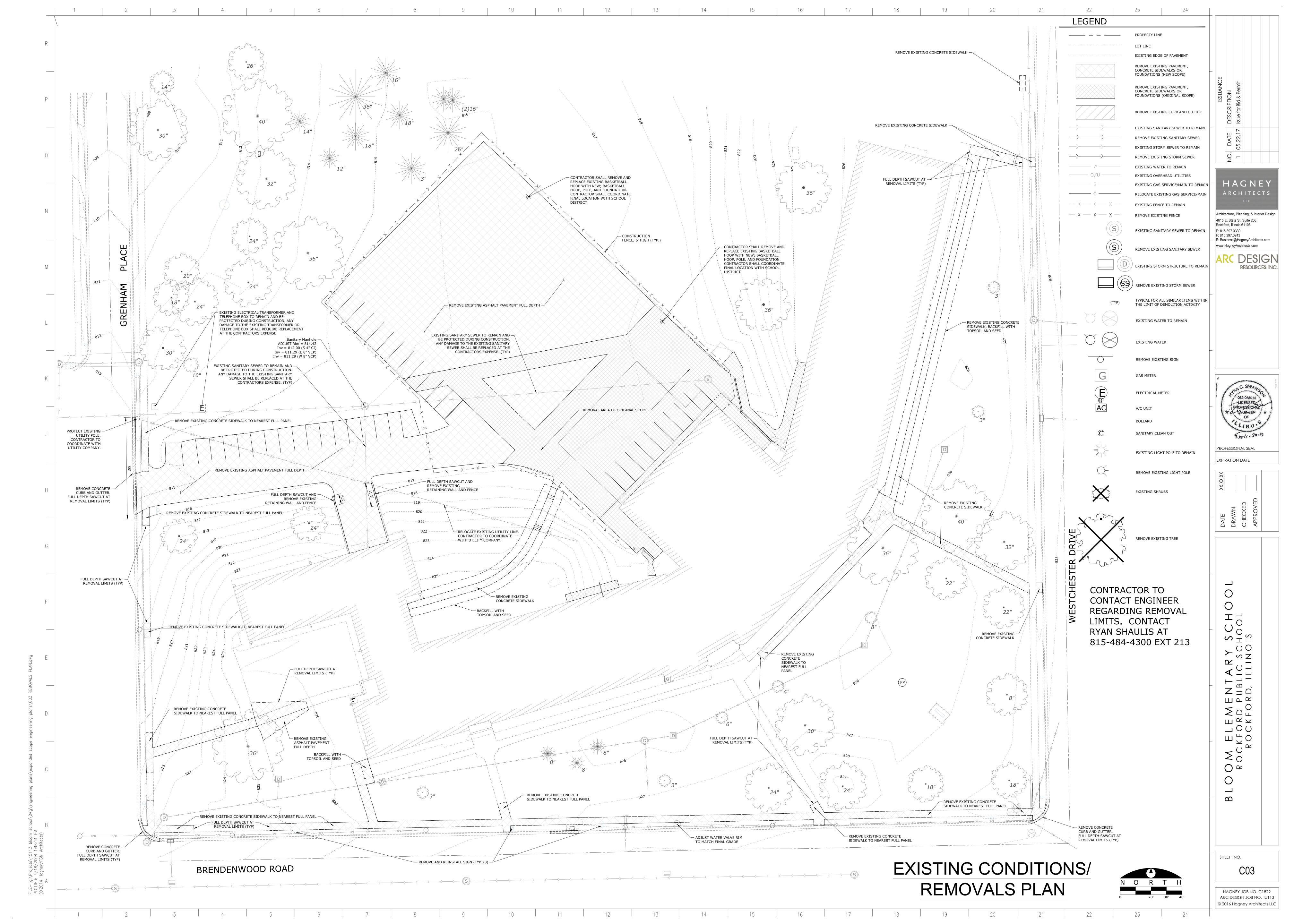


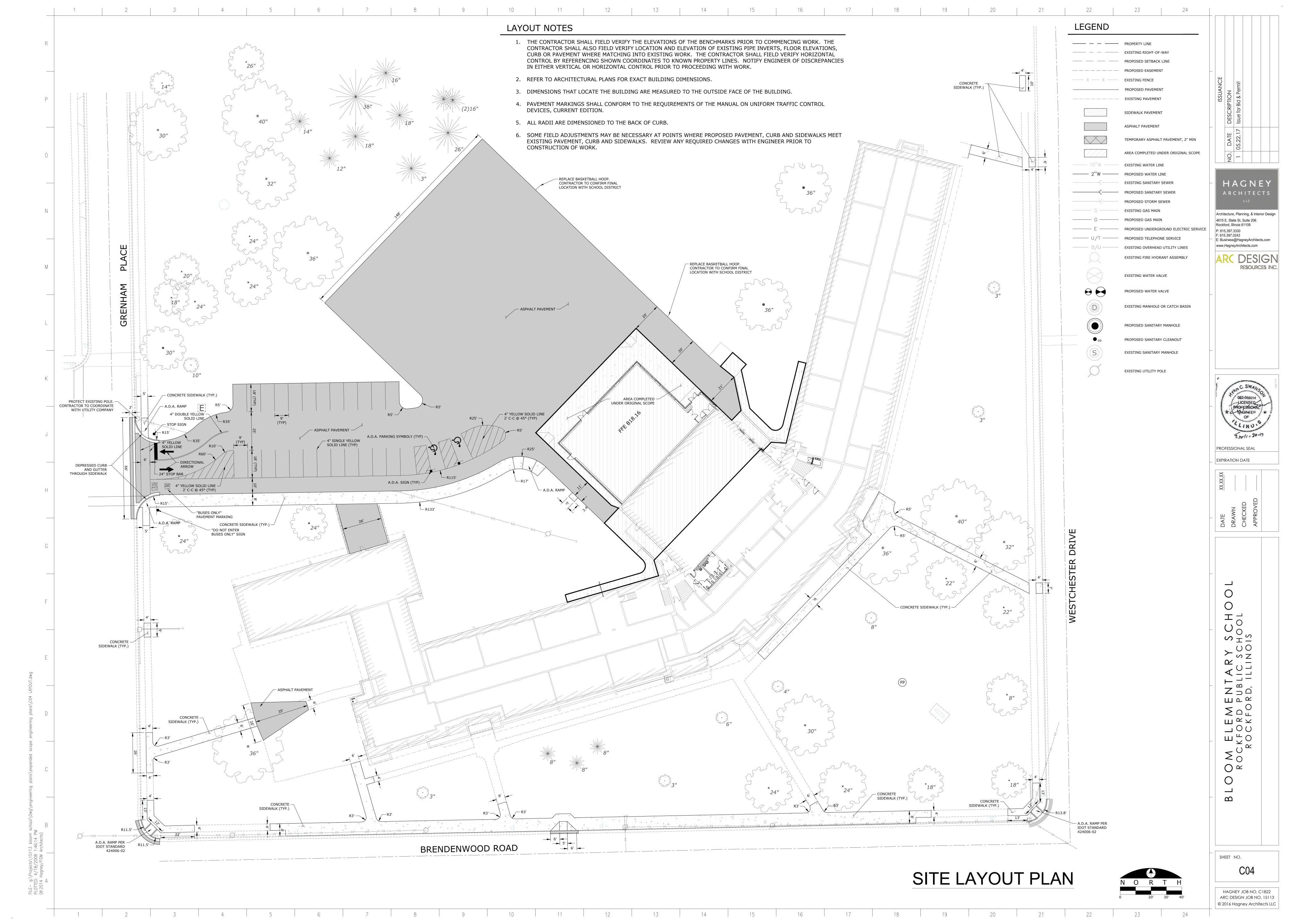
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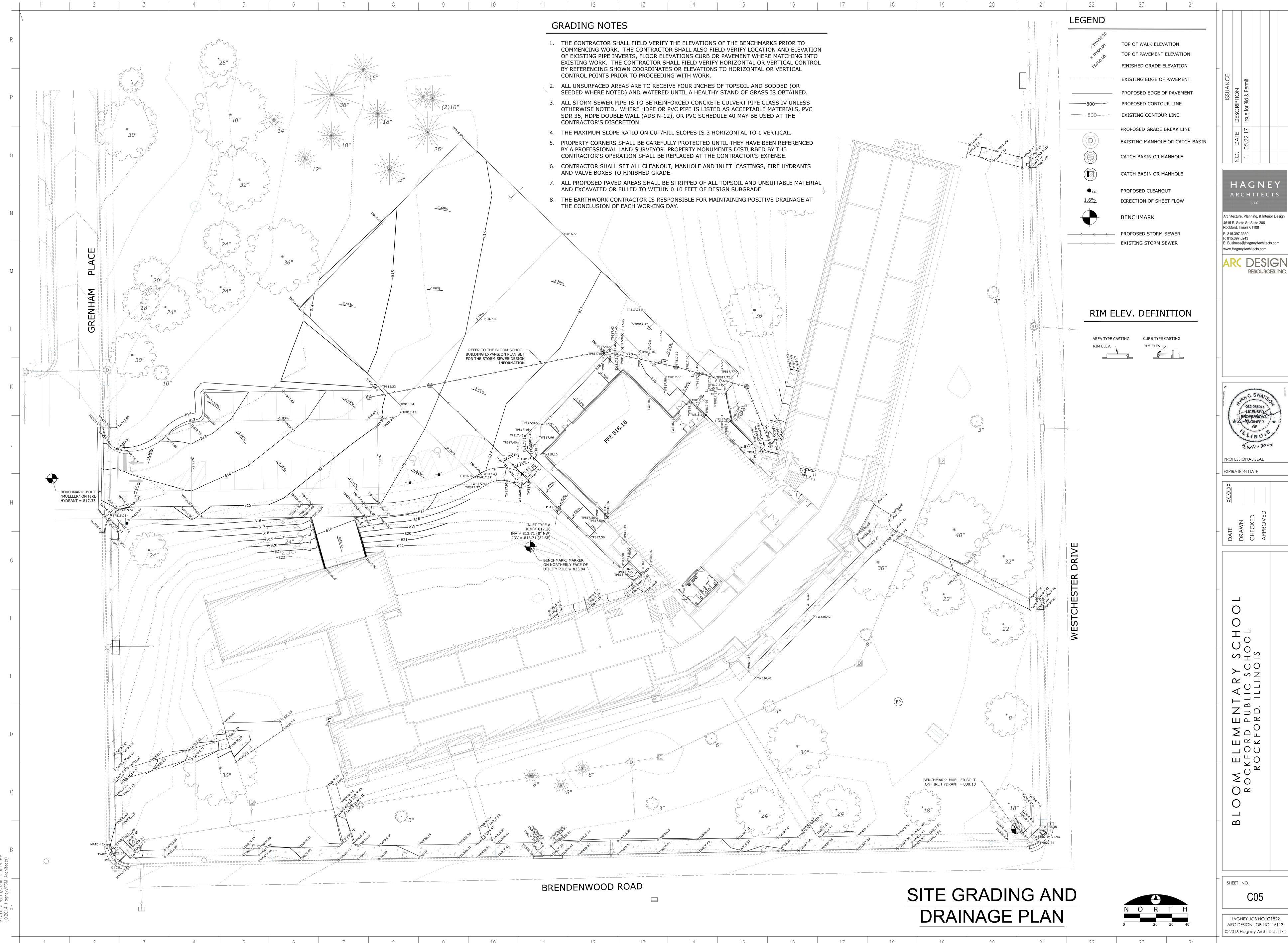
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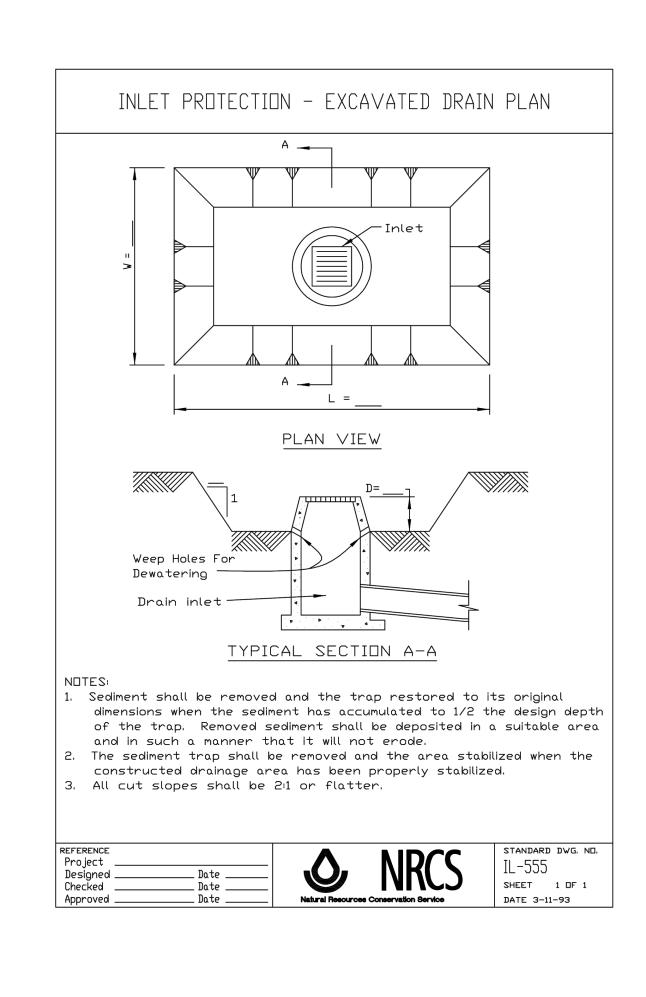
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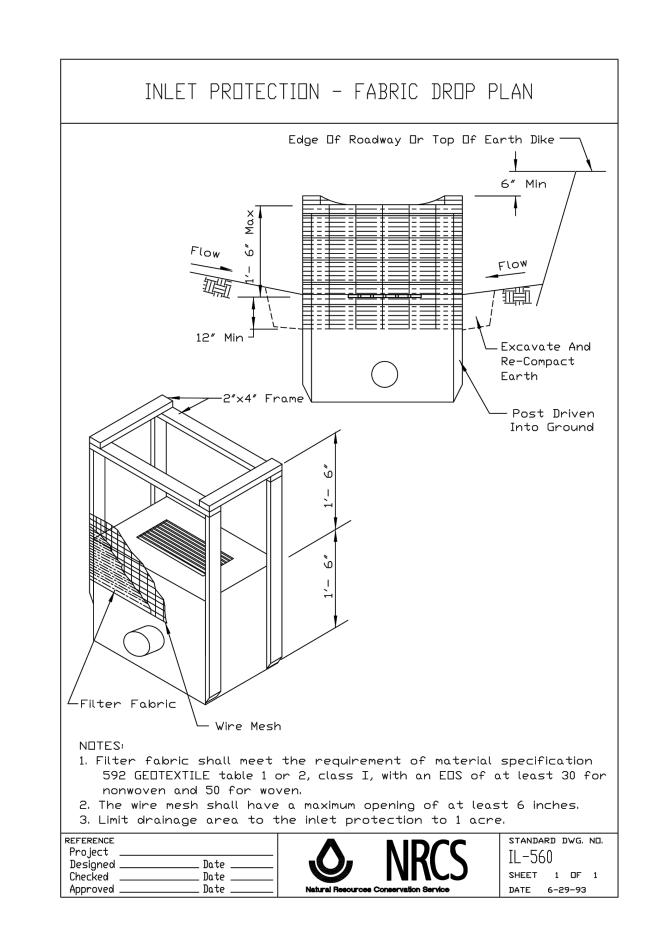
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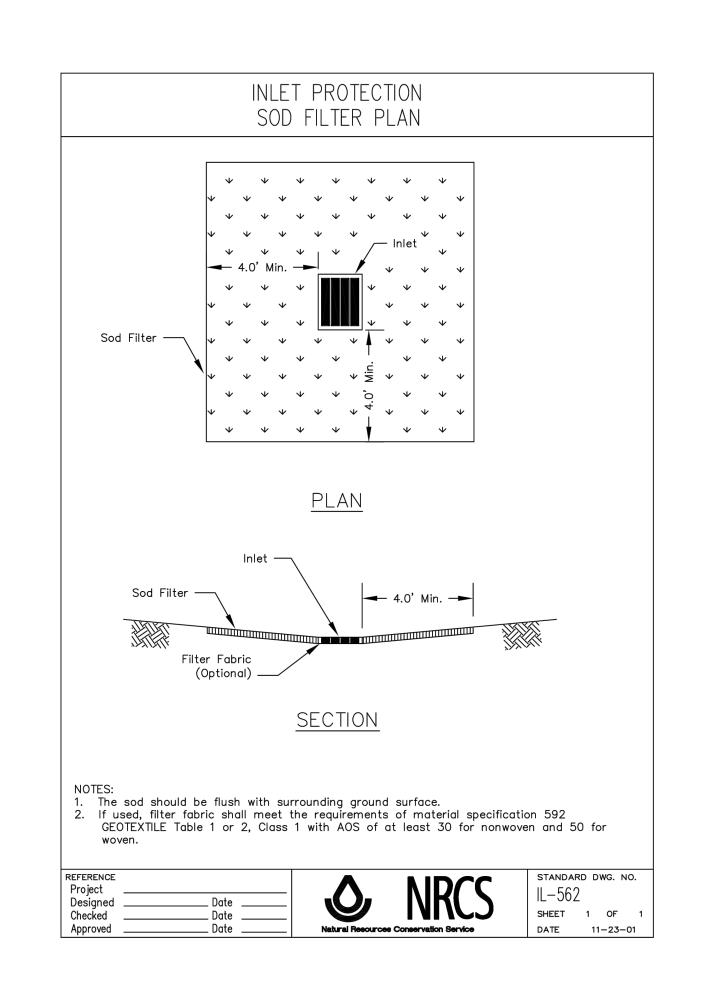
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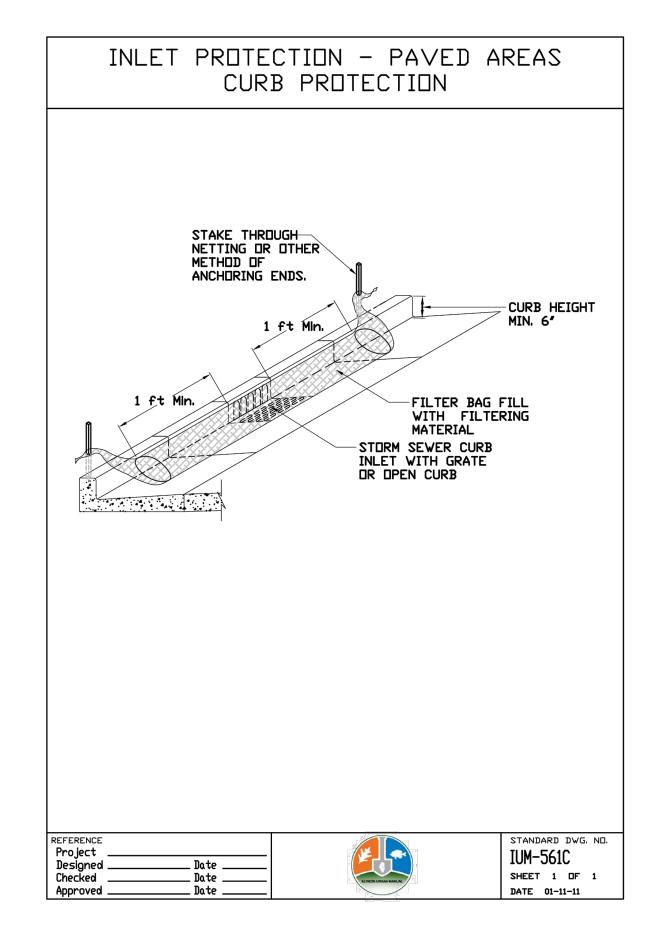


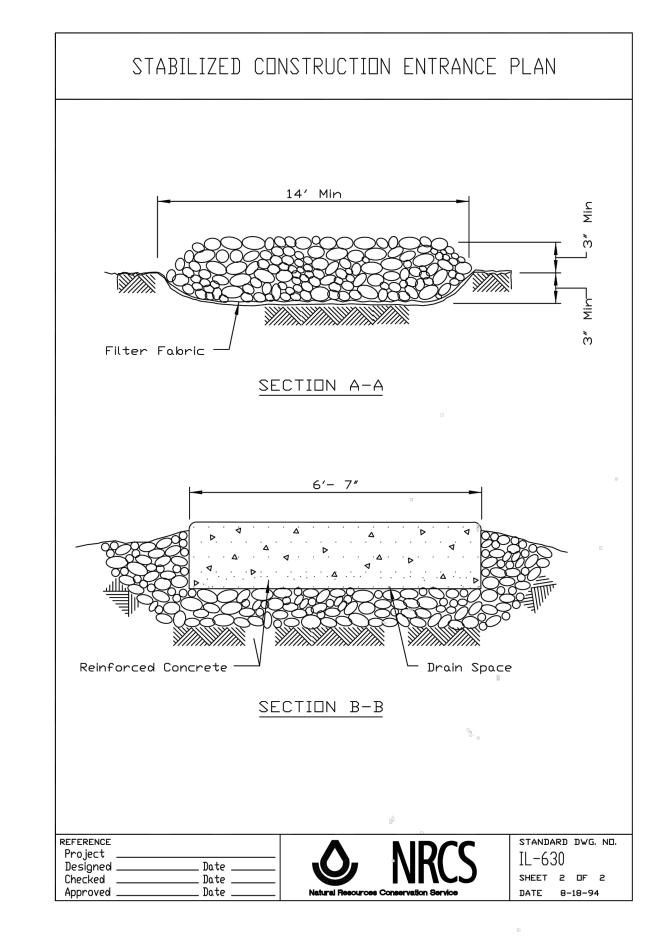
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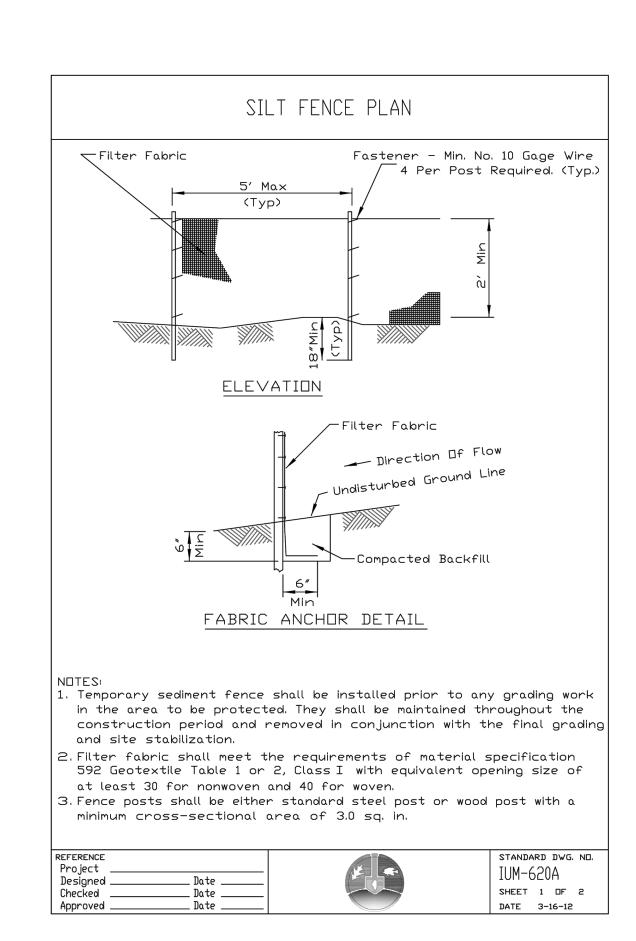


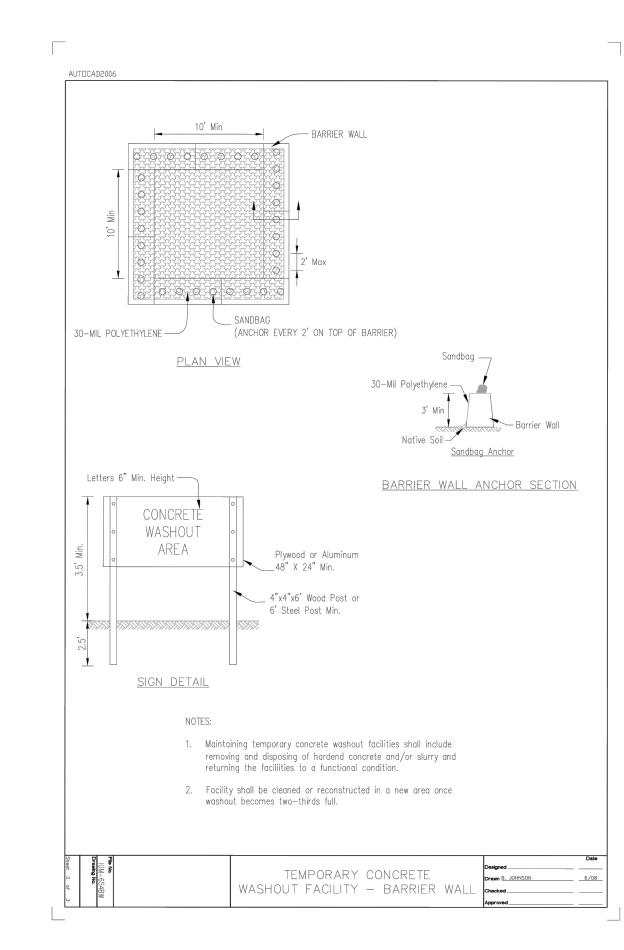


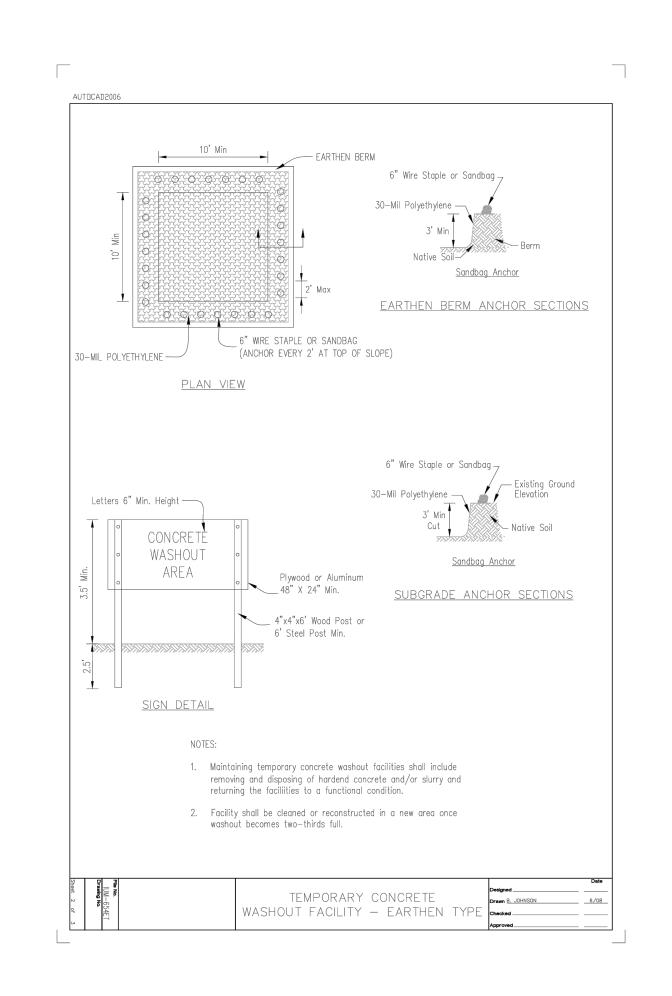


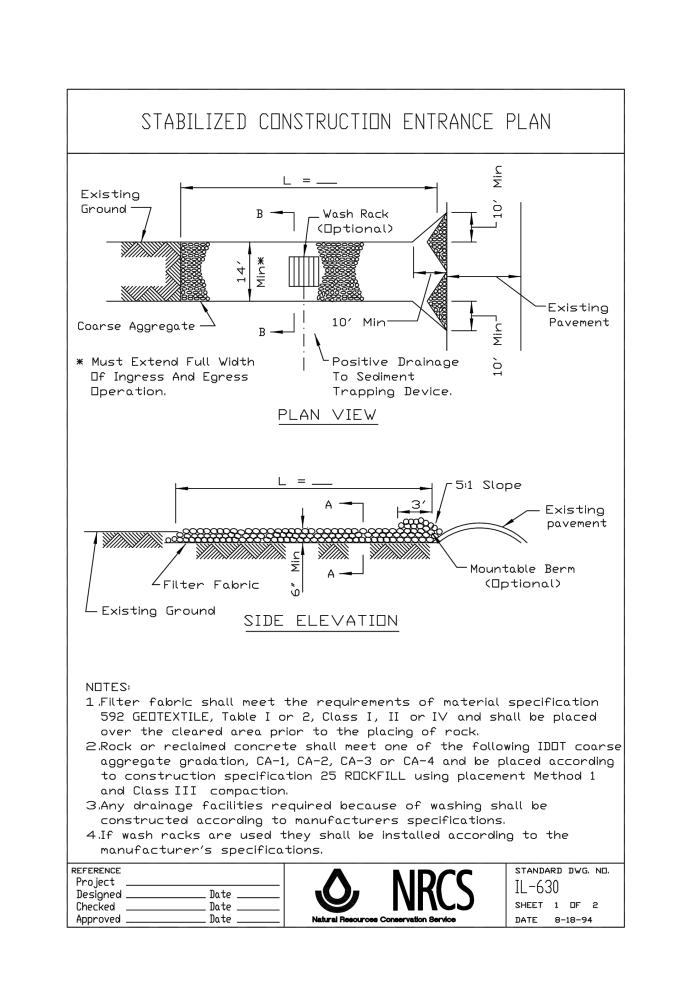


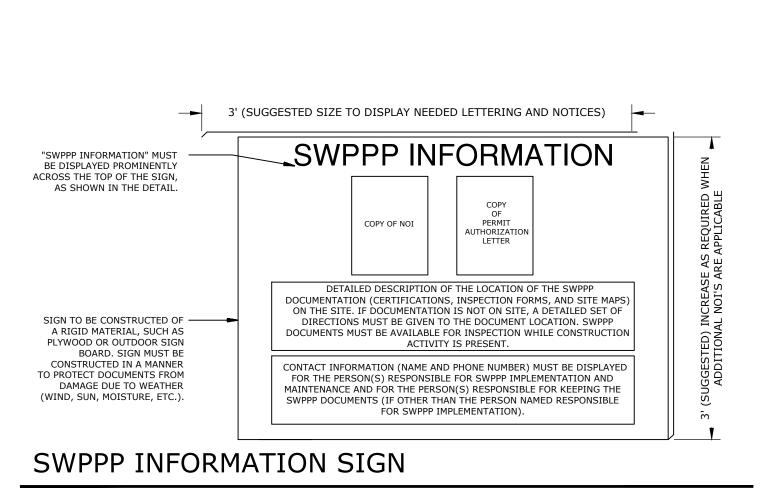


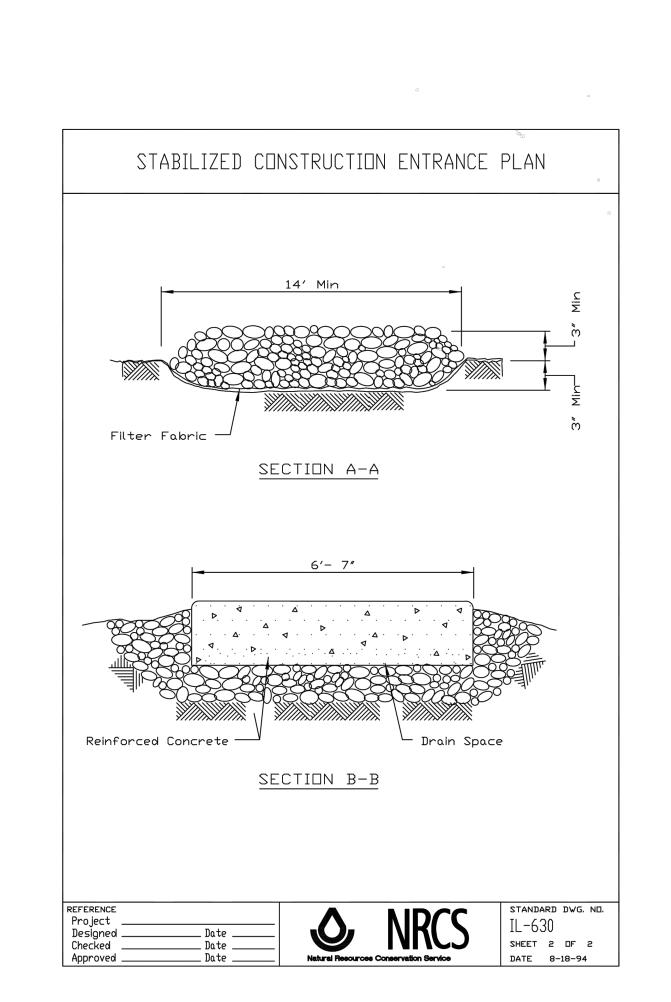






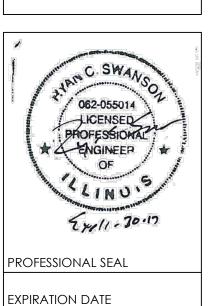






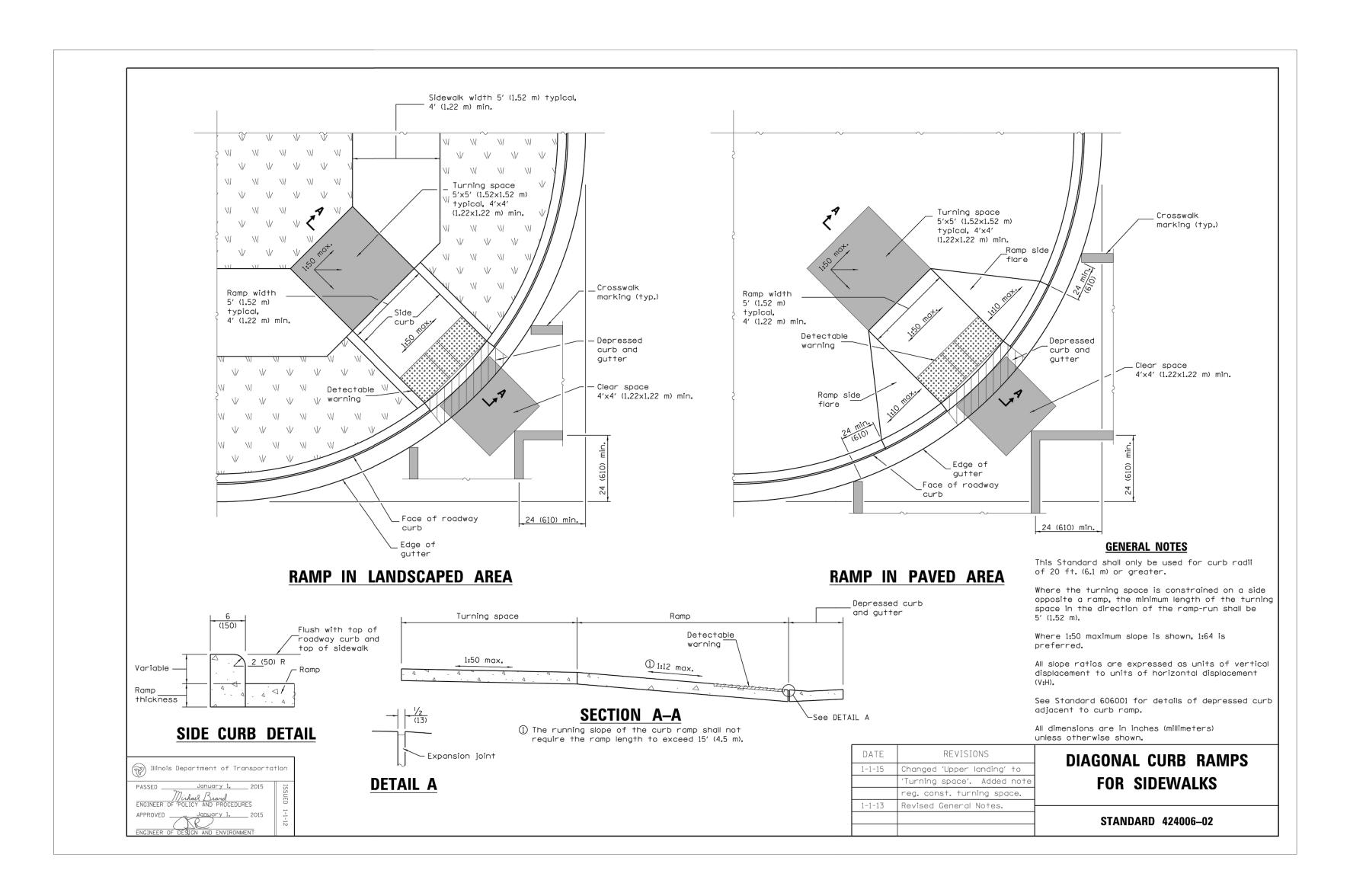
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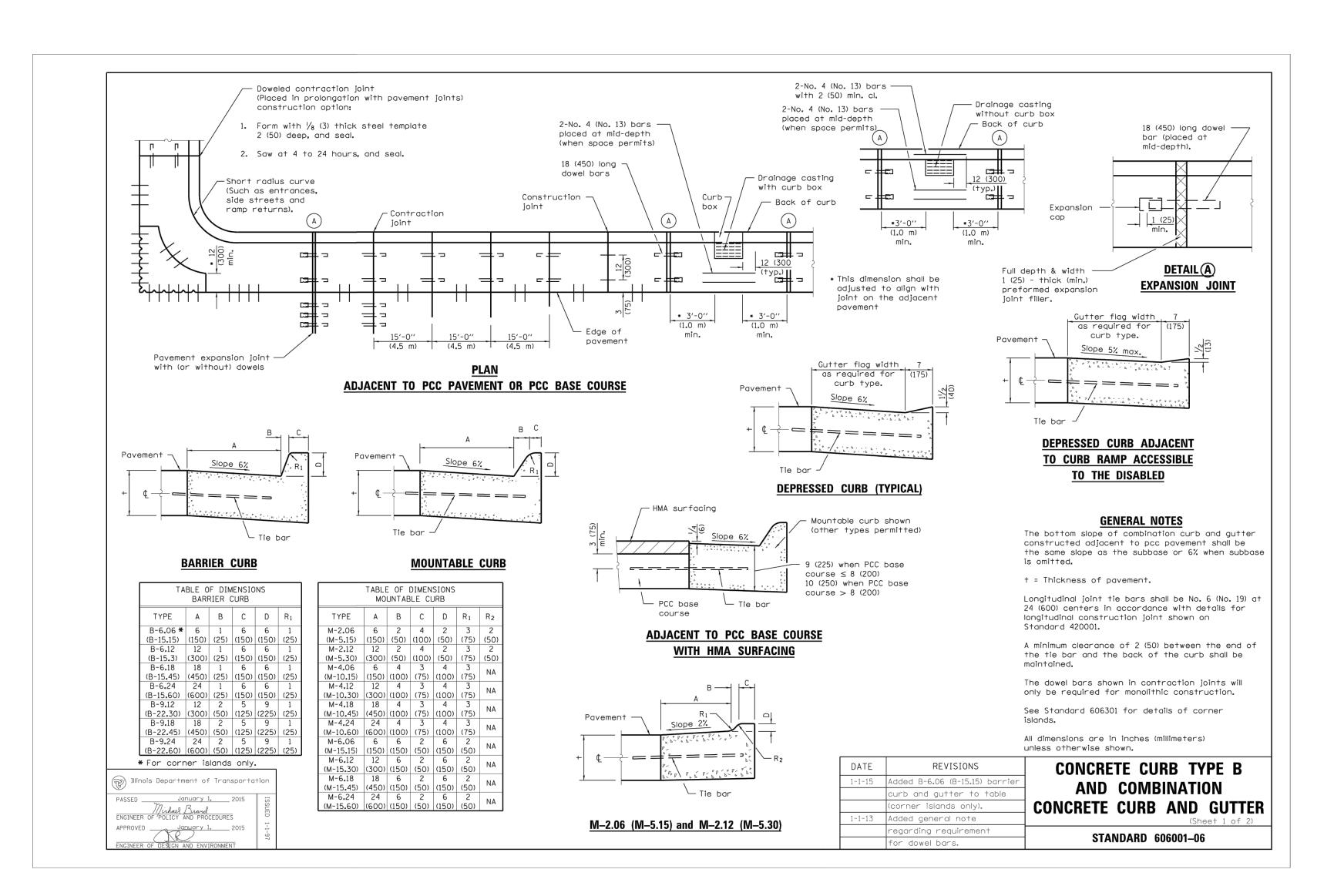
HAGNEY ARCHITECTS Architecture, Planning, & Interior Design 4615 E. State St. Suite 206 Rockford, Illinois 61108 P: 815.397.3330 F: 815.397.0243 E: Business@HagneyArchitects.com www.HagneyArchitects.com RESOURCES INC.

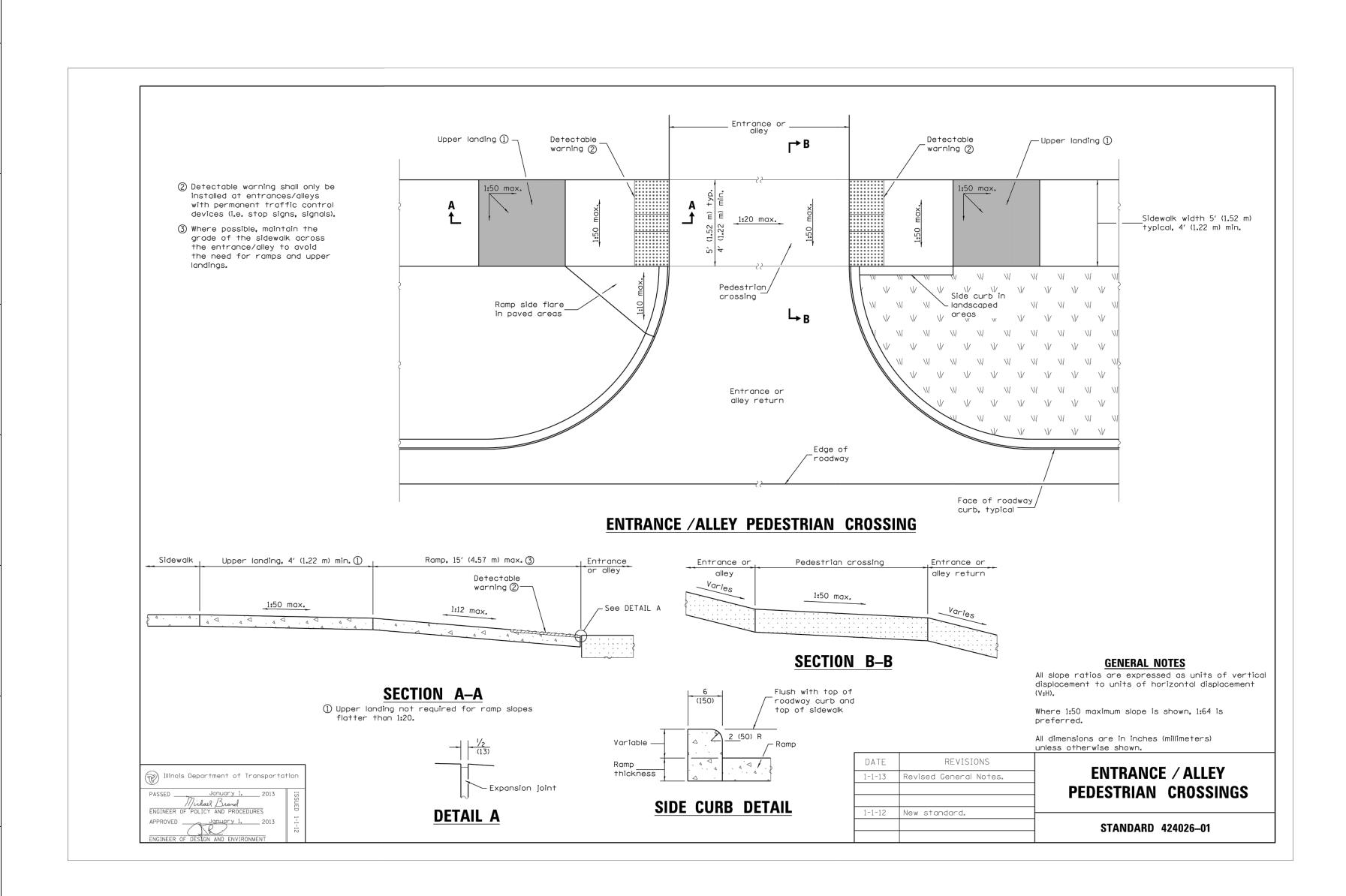


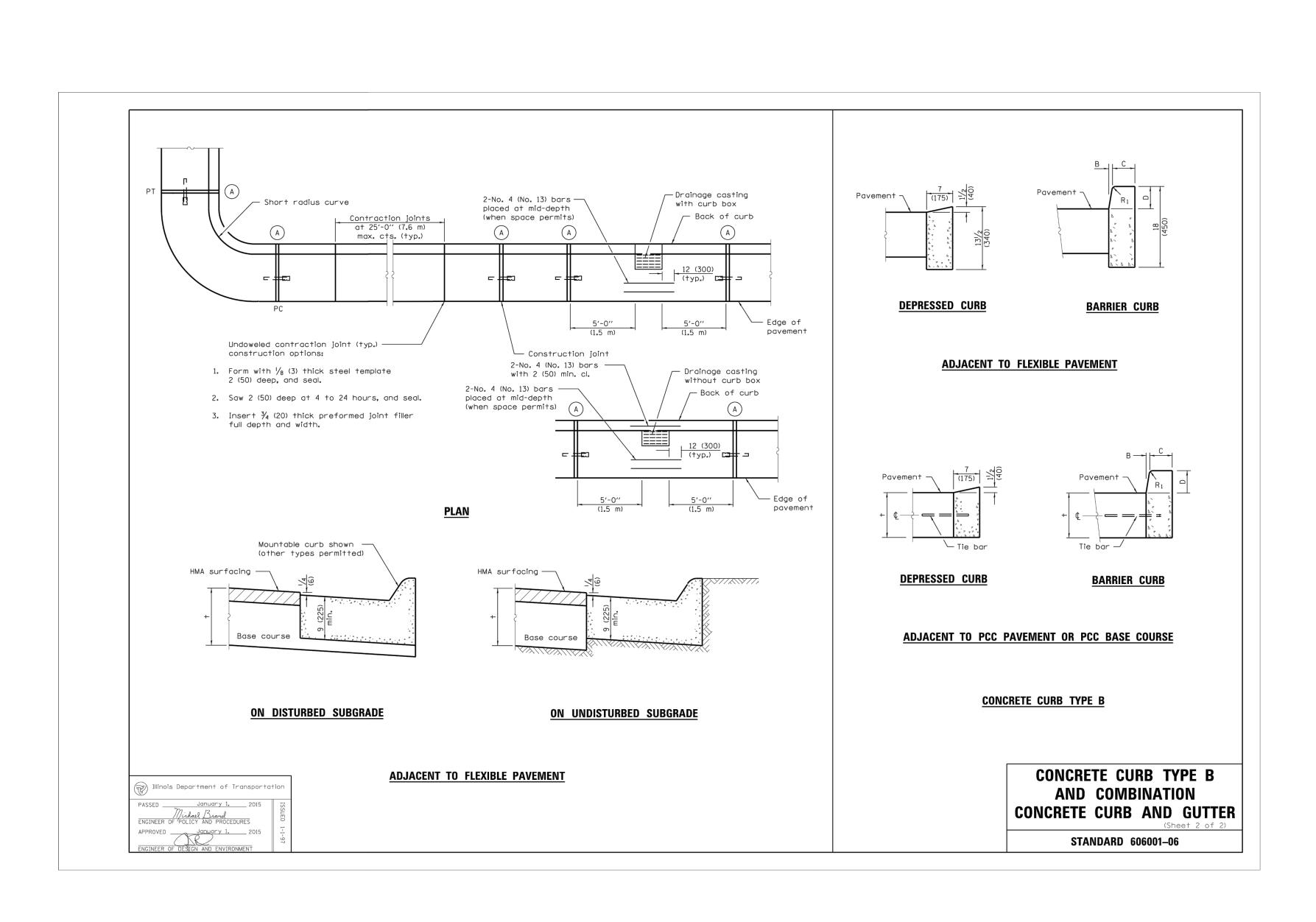
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ISSUANCE
NO. DATE DESCRIPTION
1 05.22.17 Issue for Bid & Permit

ARCHITECTS

LLC

Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243

E: Business@HagneyArchitects.com
www.HagneyArchitects.com

ARC DESIGN
RESOURCES INC.

PROFESSIONAL SEAL

EXPIRATION DATE

DATE XX.XX.XX

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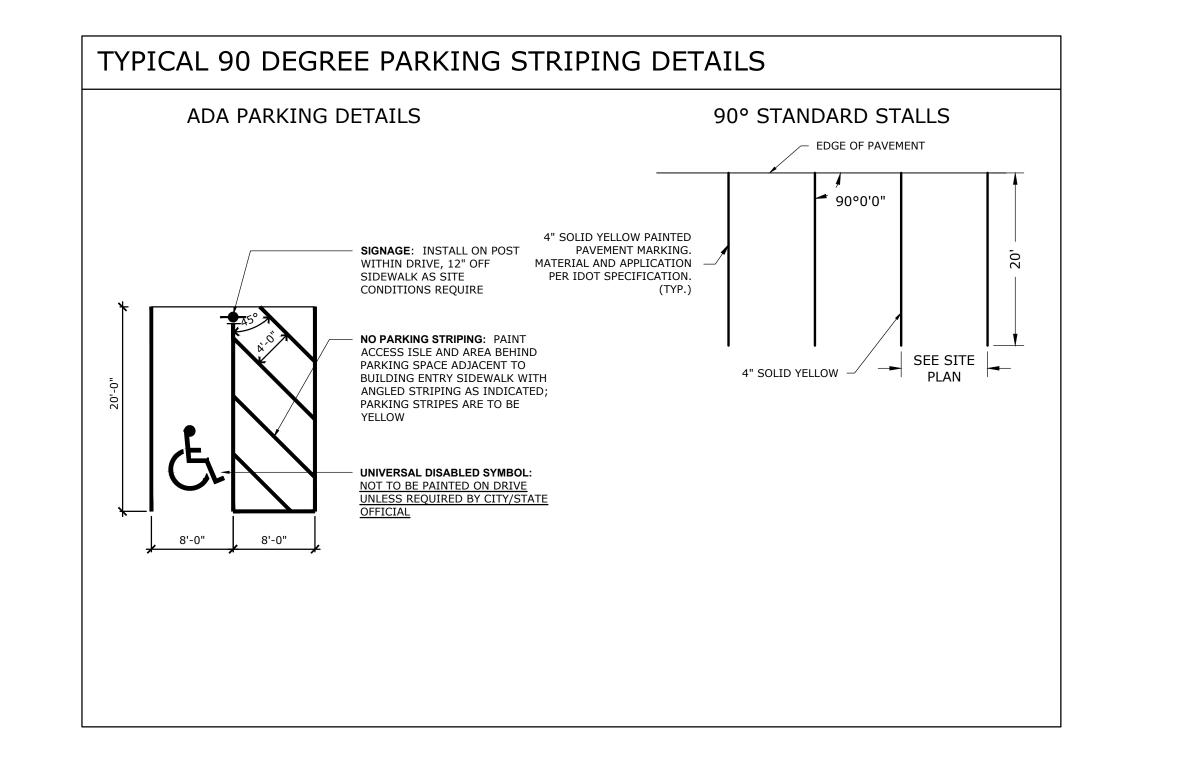
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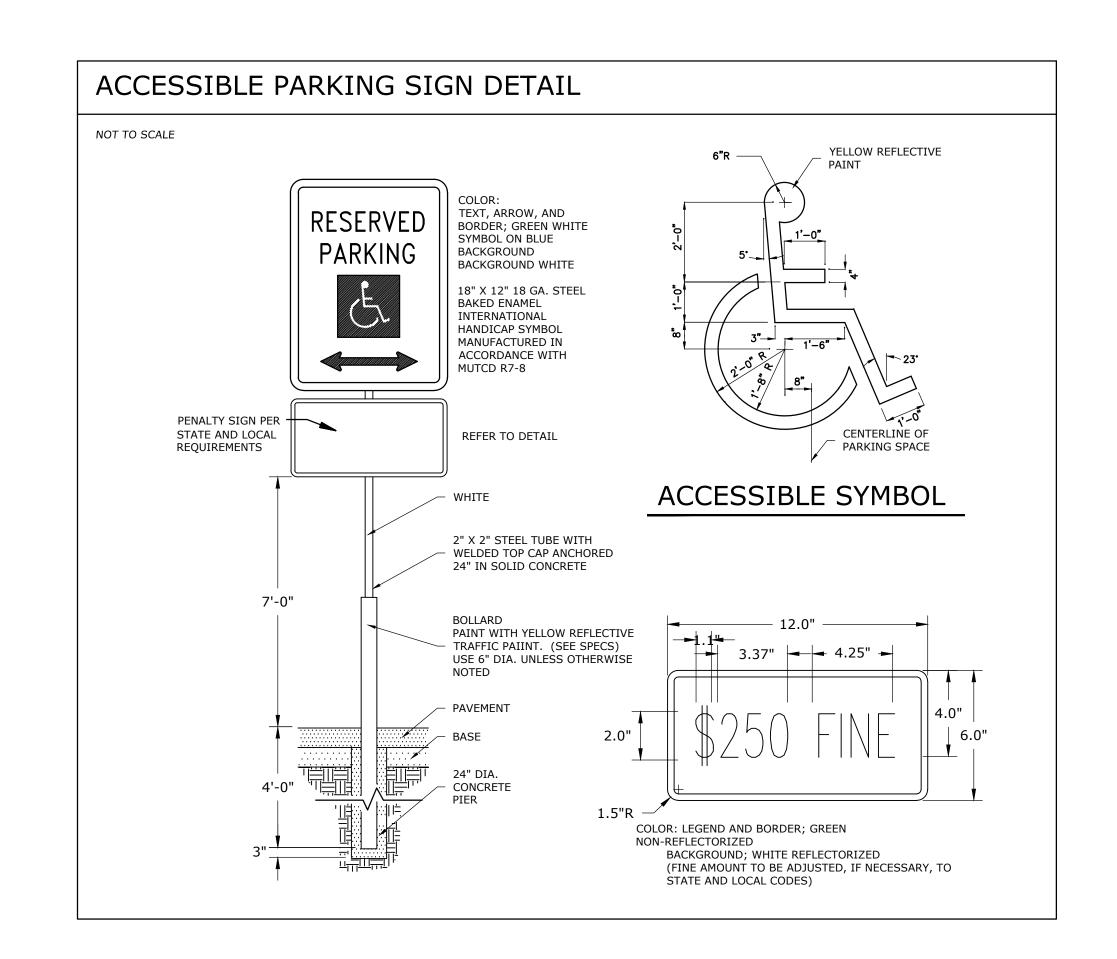
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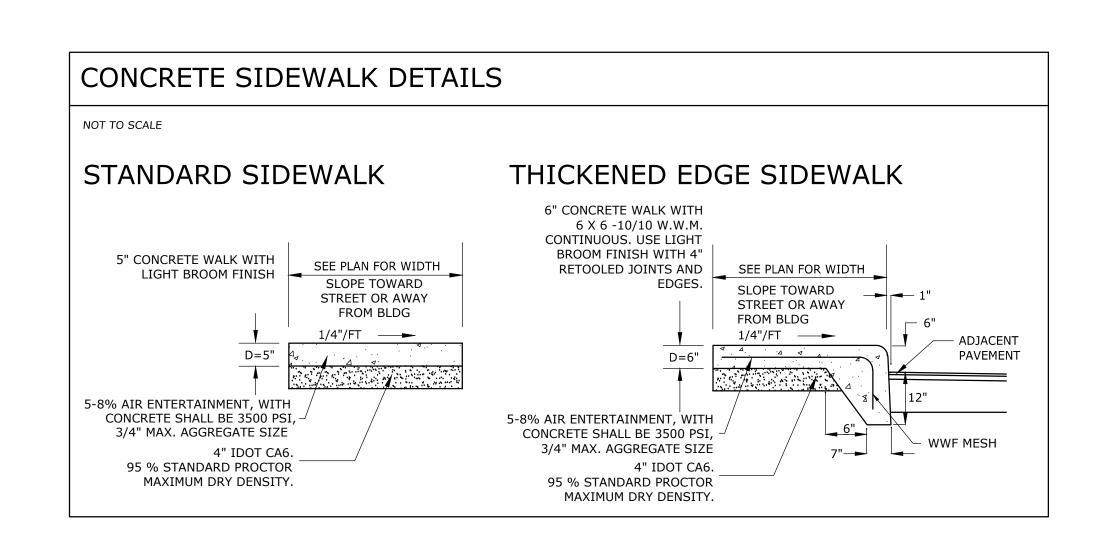
LOOM ELEMENTARY SCHOOL ROCKFORD PUBLIC SCHOOL ROCKFORD, ILLINOIS

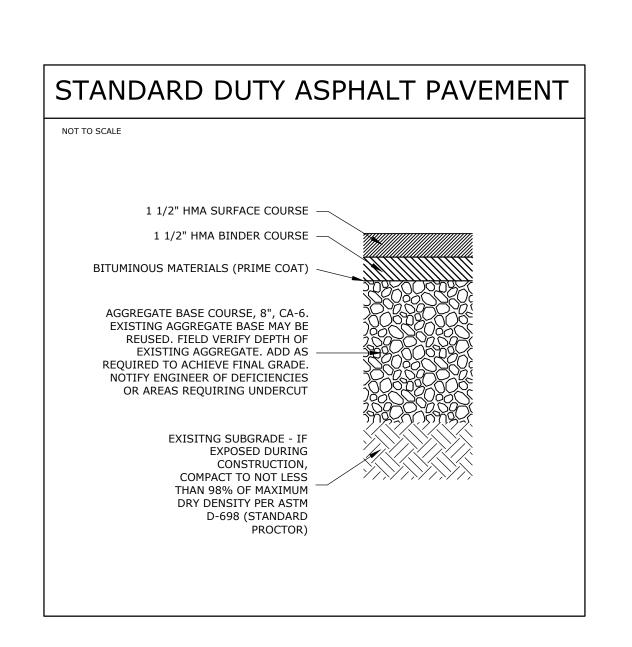
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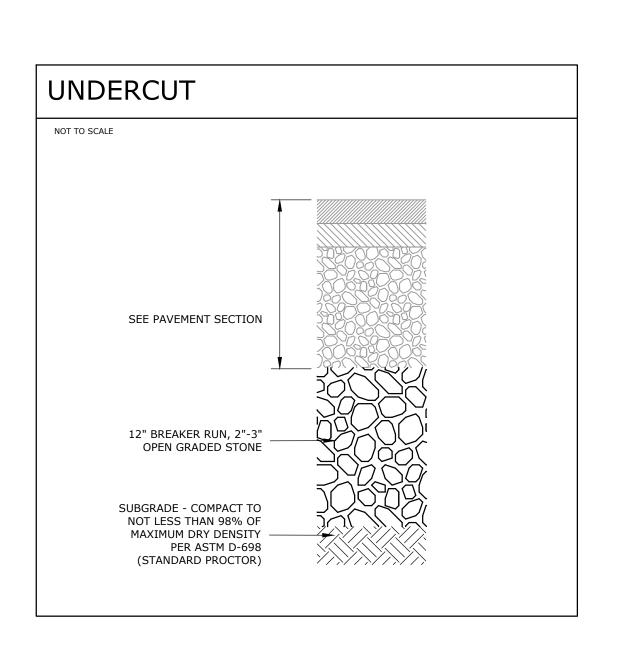
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DETAILS

ISSUANCE
NO. DATE DESCRIPTION
1 05.22.17 Issue for Bid & Permit

ARCHITECTS

LLC

Architecture, Planning, & Interior Design
4615 E. State St. Suite 206
Rockford, Illinois 61108
P: 815.397.3330
F: 815.397.0243
E: Business@HagneyArchitects.com
www.HagneyArchitects.com

ARC DESIGN
RESOURCES INC.

PROFESSIONAL SEAL

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CHECKED
APPROVED

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