PROJECT

CAFETERIA ADDITION AND REMODELING TO LEWIS LEMON ELEMENTARY SCHOOL

1993 MULBERRY STREET,
ROCKFORD, ILLINOIS 61101

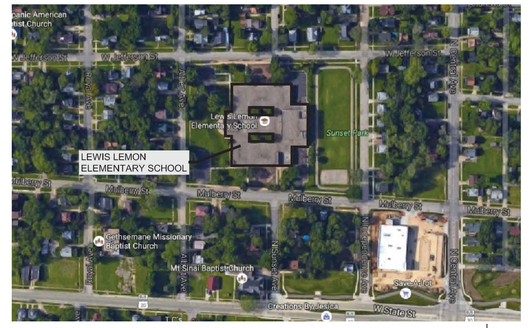
STATE MAP
SCALE: N.T.S.

OWNER

ROCKFORD PUBLIC SCHOOL DISTRICT 205

501 SEVENTH STREET,
ROCKFORD, ILLINOIS 61104

ROCKFORD PUBLIC SCHOOLS



SITE LOCATION MAP
SCALE: N.T.S.

ARCHITECT OF RECORD

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4-3-2017
DATE
EXPIRES 11-30-2018

CIVIL

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DRAWINGS:
M101 thru M103, P101 thru P103, SE101 thru E108

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S0 thru S6

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Date: 4/3/2017
Exp.: 11/30/2018

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DRAWINGS:
FS101, FS101E, FS101F, FS101M, FS101SC

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CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
TITLE SHEET

PROJECT INFORMATION	
Date	April 3, 2017
Rev. Date	
RLJA Proj	2015-052

SHEET NUMBER
T101
OF
1

EARTHWORK NOTES

1. Unsuitable Materials:
   Assume that if unsuitable materials are encountered and the replacement of these materials is required, this situation shall be handled as follows:
   A. The site contractor shall notify the general contractor immediately. The project superintendent, prior to the undercutting being completed, must approve any additional undercutting. The quantities must be verified by the engineer as the additional removal is being completed.
   B. If approved by the general contractor, 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.
2. 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 engineer.
   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 not be used as topsoil.
   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 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.
   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.
3. 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 being "offsite 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 tons.
      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.
4. 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.
5. 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, these areas should be stabilized or undercut. minimum compaction standards are based upon a percentage of the fill or backfill material's maximum standard proctor dry density (ASTM specification D-698). 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 95% standard proctor.
      A.2. Areas under pavement sections:
         A.2.A. 95% standard proctor for all fill placed more than 12 inches below passenger car 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. The option of utilizing the modified proctor (ASTM D-1557) in lieu of the specified standard proctor (ASTM D-698) shall be at the discretion of the general contractor, contingent upon written approval by the architect and owner's engineer and approved by the project architect.
   C. Place all backfill and fill materials in layers that are not more than 8" 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 area.
6. 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.
7. Disking and drying shall be performed in the event that poor soils are encountered for a minimum duration of 3 days. Contractor shall include provisions for this work at no additional cost.

DEMOLITION NOTES

1. The contractor shall be responsible for the demolition and removal of all items that impede the proper placement of any items proposed by this plan set.
2. The removal work shall include but not be limited to: obtaining all demolition permits required, removal of the existing trees, sealing of the existing water well(s), removal any septic system or dry wells (if any) and other items to complete the removals.
3. The contractor shall remove all materials deemed unsuitable by the engineer within eight inches of the proposed building footprint to the depth that such unsuitable materials exist. Voids shall be filled in accordance with the "Earthwork Notes" on this plan sheet.
4. Tree removal shall include the complete removal of all trees on the entire site, including all stumps and roots with the following exception: existing (healthy) trees (along the site perimeter) that are six inches or greater in diameter at breast height (DBH) shall be preserved and incorporate into the landscaping. if removal of said trees is deemed necessary by the contractor, the contractor shall offer written notification ten business days prior to demolition to the engineer. Written approval must be obtained prior to removal of said trees.
5. The contractor shall coordinate disconnection, removal, and relocation of the existing utilities with the appropriate utility companies. The contractor shall be responsible for all fees that are levied by utility companies in conjunction with demolition and removal of existing utilities.
6. Disposal of all materials shall comply with all local, state, and federal regulations. All waste material shall be disposed of off site. contractor shall be responsible for removal of all materials from the site along with all associated permits and regulatory requirements.
7. The contractor shall be familiar with the appropriate specifications for well abandonment, materials, procedures and access to equipment required to properly seal wells (if any). The contractor shall be responsible to obtain, complete, and file the appropriate forms through the City of Rockford and the Illinois Environment Protection Agency (IEPA).
8. The contractor shall maintain all existing utility services to adjacent lots. Interruption of services to adjacent lots shall not occur without proper approval. 48 hrs notice shall be given to the property owners prior to the connection of the new services. The contractor shall be responsible for costs associated with the connection of temporary utility services, if required, to facilitate construction staging.
9. The contractor shall maintain all existing parking, sidewalks, drives, etc. to be clear and free of any construction activity and/or excavated and hauled material to ensure easy and safe pedestrian and vehicular traffic to and from adjacent sites.
10. The contractor shall perform a full-depth saw cut along the perimeter of pavement removal that abuts existing pavement that is to remain.
11. Any damage sustained by items that are to remain in place shall be repaired or replaced to the owner's satisfaction at no cost to the owner.

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), seventh edition dated 2014, 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.
   C. Standards and requirements of City of Rockford.
   D. 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.
      c. Reinforced concrete pipe--ASTM C443 ("O" ring).
   C. Casing Pipes. Steel pipe--ASTM A120, 3/8" minimum thickness.
   D. Manholes and Catch Basins.
      a. Precast reinforced concrete--ASTM C478.
      b. Size:
      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 inside diameter.
      f. Adjustment: No more than two precast concrete adjusting rings with six inch maximum height adjustment shall be allowed.
      g. Pipe and frame seals: the 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 manhole frame. Pipe and frame seals: All pipe connection openings shall be made watertight with hydraulic cement. The hydraulic cement sealing pipe connections shall extend the full thickness of the structure wall. Hydraulic cement shall also be applied within the structure from the cone section, past all adjustment rings, to the frame.
      h. Bottom sections: All bottom sections shall be monolithically precast including bases and invert flowlines.
   E. Inlets.
      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 be allowed.
      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 frame.
      e. Bottom sections: All bottom sections shall be monolithically precast including bases and invert flowlines.
   F. Castings (Unless otherwise noted within the plans)
      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-3032.
      c. Yard inlet--Neenah No. R-2579.
      d. Parking lot inlet--Neenah No. R-2450.
   G. Crushed Granular Bedding: Crushed gravel or crushed stone course aggregate--ASTM C33, Size No. 67.
3. All end sections 24" and greater shall come equipped with trash grate and be precast or 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.
5. 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 governing authorities.
11. Backfill trenches to contours and elevations shown on the drawings.

GENERAL PAVING NOTES

1. All pavement shall be constructed in accordance with the following:
   A. All 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.
   B. Standards and requirements of City of Rockford.
   C. 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 subgrade.
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 City of Rockford prior to placing the base material. Notify the engineer at least 48 hours prior to finished subgrade preparation.
5. The earthwork contractor shall be responsible for removal of spoil material from the underground contractors, preparing the roadway 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.
6. The quantities contained in these documents are approximate and estimated, and are presented as a guide to the contractor in determining the scope of work. It is the Contractor's responsibility to determine all quantities and to become familiar with the site and soil conditions.
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 City of Rockford.
9. 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 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.
    A. Field testing, frequency, and methods may vary as determined by and between the owner,the ITL and 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.

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.

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: 6% ± 1%
3. All curb and gutter and sidewalk shall be broom finished.
4. Curing and protection of all concrete shall be in strict conformance with the provisions of Section 1020.13 of the Standard Specifications.
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 606001.
6. Depressed curb shall be provided for handicapped ramps and at driveway locations in accordance with IDOT standard 606001.
7. Sidewalk shall be a minimum 6" thick through all driveway crossings.
8. Concrete Pavement joints shall comply with the following:
   F. 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 power-driven 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' max.
      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 a 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.
9. 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.
10. Joint sealants: All sealants shall be sealed with white or gray approved exterior pavement joint sealants and shall be installed in accordance with manufacturer's recommendations.
11. Contractor shall apply Salt Guard or other approved water repellant chloride screen on all exposed concrete flatwork, including sidewalks, stoops, pavements, and curbs.

GENERAL NOTES

1. Unless noted otherwise on this page, all earthwork, grading and paving shall be performed in accordance with Standard Specifications for Road and Bridge Construction in Illinois, State of Illinois Department of Transportation, Current Edition, and all revisions and supplements thereto, the specifications contained in this project manual, and the requirements and specifications of the City of Rockford. In case of conflict between the Standard Specifications and the project specific specifications in this manual, the specifications in the manual shall govern.
2. Unless noted otherwise on this page, all sanitary sewer, water main, and storm sewer shall be constructed in accordance with "Standard Specifications for Water and Sewer Main Construction" in Illications and Requirements of the Rock River Water Reclamation District (Sanitary) and City of Rockford (Water). The Contractor is responsible for familiarizing himself with the local agency requirements.
3. 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 controls the physical construction on a contemporary basis at the site.
4. The contractor, by agreeing to perform the work, agrees to indemnify and hold harmless the owner, the engineer, the city, 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 of said parties.
5. 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 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.
6. Maintain access for vehicular and pedestrian traffic as required for other construction activities. Use traffic control devices to include temporary striping, flagmen, barricades, warning signs, and warning lights shall be in accordance with current MUTCD and IDOT standards.
7. 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.
8. The City of Rockford must be notified at least two (2) working days prior to the commencement or resumption of any work.
9. The contractor shall coordinate all permit and inspection requirements with responsible local, state, and federal agencies. The contractor shall include the costs of this coordination and all inspection fees in the bid price.
10. 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 local government agency, as a condition of the permit, but shall not be less than 12 months from the date of final acceptance by Owner.
11. The contractor will be held solely responsible for and shall take precautions necessary to avoid property damage to adjacent properties during the construction of this project.
12. All structures, inlets, pipes, swales, roads and public egresses must be kept clean and free of dirt and debris at all times.
13. Any field tiles encountered during construction shall be recorded showing size, location, and depth by the contractor, and either reconnected and rerouted or connected to the storm sewer system. The owner shall be notified immediately upon encountering any tile.
14. The contractor shall field verify the elevations of the benchmarks prior to commencing work. The contractor shall 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 property lines. Notify the engineer of discrepancies in either vertical or horizontal control prior to proceeding.
15. All elevations are on NAVD 88 datum.
16. Parking areas designated as A.D.A. and all sidewalk shall be compliant with state and local A.D.A. requirements.
17. Detectable warning plates per Article 424.09 of the 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.
18. The contractor shall verify the location of all utilities in the field prior to construction. This includes sanitary sewer, water main, storm sewer, General Telephone, Commonwealth Edison, Northern Illinois Gas and cable television, if any. The J.U.L.I.E. number is 1-800-892-0123.
19. Property corners shall be carefully protected until they have been referenced by a Professional Land Surveyor.
20. The contractor shall keep careful measurements and records of all construction and shall furnish the Engineer, the Owner and the City with record drawings in a digital format compatible with AutoCAD Release 14 upon completion of his work.
21. Any excess dirt or materials shall be placed by the contractor onsite at the owner's direction or as indicated on the plans.
22. Notify the owner and City of Rockford of any existing wells. Obtain permit form the Illinois Bureau of Minerals and the State Water Survey. Cap and abandon wells in accordance with local, state, and federal regulations.
23. Finish grade shall in all areas not specifically reserved for storm water management shall drain freely. No ponding shall occur. Tolerances to be observed will be measured to the nearest 0.04 of a foot for paved surfaces and 0.10 of a foot for unpaved areas.

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CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

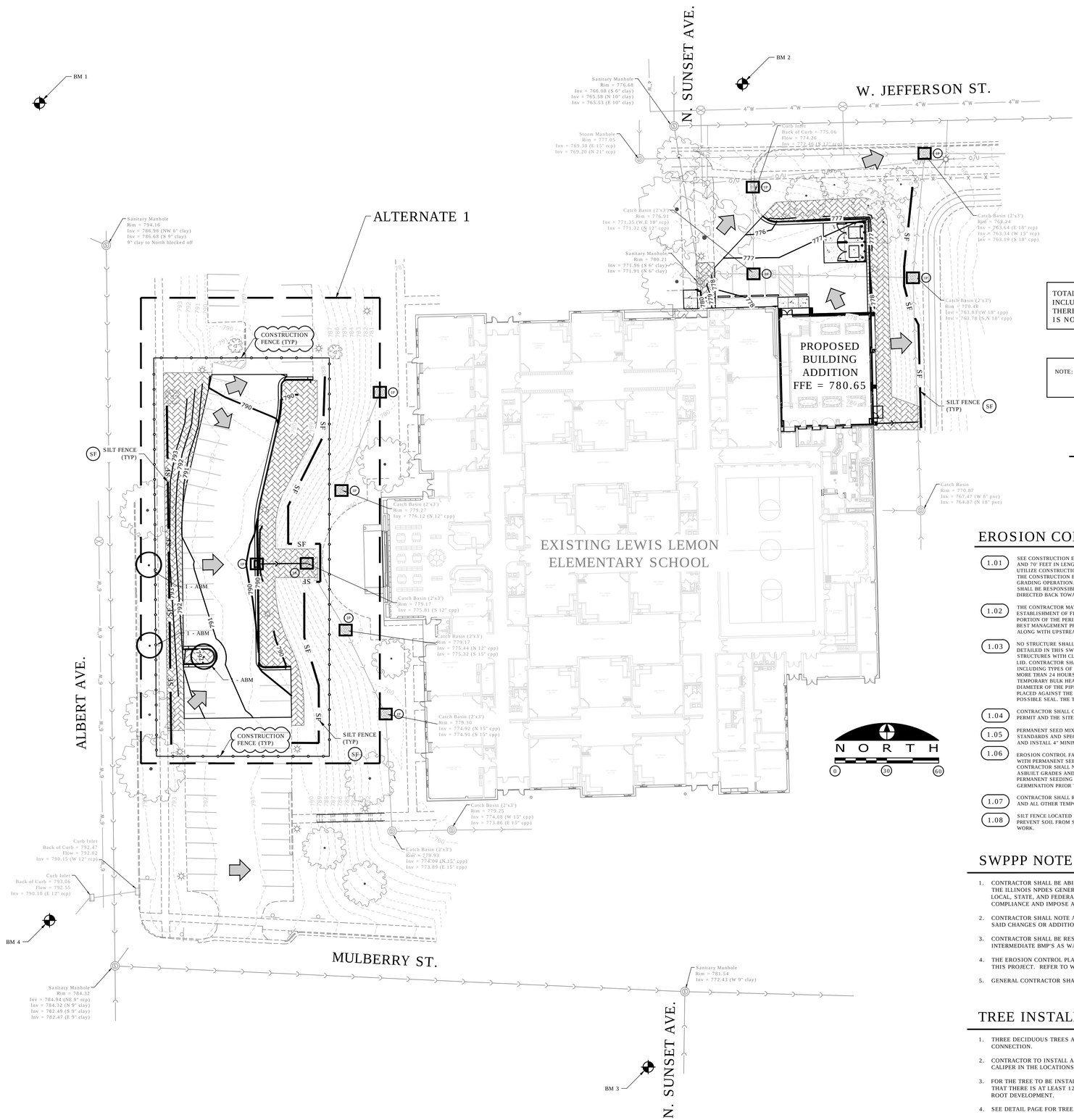
RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
GENERAL NOTES

PROJECT INFORMATION			
Date	April 3, 2017		
Rev. Date			
RLJA Proj	2015-052		

SHEET NUMBER
C01 OF C08

g:\projects\15083 lewis lemon elementary school\dwg\engineering plans\c01 general notes.dwg plotted by Andrew Hess on 3/27/2017 2:39 PM. Plot scale = 1:1.



TOTAL AREA DISTURBED = 0.80 ACRES, INCLUDING STAGING OPTION 2 THEREFORE A FORMAL SWPPP PLAN IS NOT REQUIRED

NOTE: ADJUST SILT FENCE AS NEEDED TO ACCOMMODATE STAGING OPTION SELECTED BY CONTRACTOR (INCIDENTAL)

LAND OWNER

ROCKFORD PUBLIC SCHOOL DISTRICT 205
501 7TH STREET
ROCKFORD, IL 61107
815-966-3066

LEGEND

(SEE SITE PLAN SET FOR EXISTING SYMBOLS)

- PROPOSED BOUNDARY LINE
- LIMITS OF DISTURBANCE
- 800 EXISTING CONTOUR LINE
- 800 PROPOSED CONTOUR LINE
- EDGE OF PAVEMENT
- PERMANENT STORM SEWER
- PROPOSED AREA INLET
- MANHOLE
- DIRECTION OF OVERLAND FLOW AND SLOPE
- CONCRETE SIDEWALK
- TURF AREA
- PROPOSED SEMI-PERMANENT SLOPE PROTECTION WITH PERMANENT RESTORATION
- X.XX SEE SPECIFIC KEY NOTE ON THIS SHEET
- "A" DRAINAGE AREA

EROSION DETAILS (SEE SWPPP DETAILS SHEET FOR ITEMS BELOW)

- CE TEMPORARY STONE CONSTRUCTION EXIT 1.01
- SF TEMPORARY SILT FENCE 1.02
- IP TEMPORARY INLET PROTECTION PER STRUCTURE TYPE 1.03
- CD TEMPORARY EROSION CONTROL SLOPE STABILIZATION NAG SC150
- BLS SLOPE PROTECTION BLANKET NAG S150 OR EQUAL ALL SLOPES 4:1 AND STEEPER SHALL RECEIVE SLOPE PROTECTIONS 1.06
- PO PERMANENT PIPE OUTLET STABILIZATION
- DCP TEMPORARY OUTLET CONTROL PROTECTION
- ST SEDIMENT TRAP
- WO CONCRETE WASHOUT

EROSION CONTROL REFERENCE NOTES

1.01 SEE CONSTRUCTION EXIT DETAIL. THE CONSTRUCTION EXIT SHALL BE A MINIMUM OF 24' IN WIDTH AND 70' FEET IN LENGTH FROM EXISTING PAVED SURFACE. ALL CONSTRUCTION TRAFFIC MUST UTILIZE CONSTRUCTION EXITS PER DETAIL TO ACCESS THE PUBLIC ROAD. DURING CONSTRUCTION, THE CONSTRUCTION EXITS MAY BE SHIFTED AT THE CONTRACTOR'S DISCRETION TO FACILITATE GRADING OPERATION. EXIT MUST TERMINATE AT EXISTING PAVED SURFACE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE RUNOFF FROM THE CONSTRUCTION EXIT IS DIRECTED BACK TOWARD THE SITE OR THAT THE RUNOFF IS CLEAR OF SEDIMENT.

1.02 THE CONTRACTOR MAY PERMANENTLY REMOVE ANY PORTION OF THE PERIMETER SILT FENCE AFTER ESTABLISHMENT OF FINAL GRADE AND/OR FINAL STABILIZATION RENDERS THE RESPECTIVE PORTION OF THE PERIMETER SILT FENCE UPSTREAM OF A DISTURBANCE AND/OR INEFFECTIVE AS A BEST MANAGEMENT PRACTICE. ANY SUCH REMOVAL SHALL BE NOTED ON THE SWPPP SITE MAPS ALONG WITH UPSTREAM STABILIZATION AND GRADING CONDITIONS.

1.03 NO STRUCTURE SHALL BE ALLOWED TO BE PROTECTED WITH ANY MEASURE OTHER THAN THOSE DETAILED IN THIS SWPPP SITE MAP FOR MORE THAN 48 HOURS OR IF RAIN IS IMMINENT. STRUCTURES WITH CLOSED LIDS WILL NOT REQUIRE PROTECTION FOLLOWING INSTALLATION OF LID. CONTRACTOR SHALL NOTE TIME STRUCTURE INSTALLATION (AND PROTECTION INSTALLATION, INCLUDING TYPES OF PROTECTION) ARE EMPLOYED. WHENEVER PIPE INSTALLATION IS HALTED FOR MORE THAN 24 HOURS OR WHEN RAIN IS IMMINENT, THE OPEN END SHALL BE PROTECTED WITH A TEMPORARY BULK HEAD. A 3/4" SHEET OF PLYWOOD THAT EXTENDS 6" BEYOND THE OUTSIDE DIAMETER OF THE PIPE SHALL BE PLACED AGAINST THE EXPOSED PIPE END. GRAVEL SHALL BE PLACED AGAINST THE PLYWOOD IN SUFFICIENT QUANTITY SO AS TO ENSURE THE TIGHTEST POSSIBLE SEAL. THE TRENCH SHALL BE DEWATERED PRIOR TO REMOVING THE BULKHEAD.

1.04 CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF ILLINOIS NPDES GENERAL PERMIT AND THE SITE NOI.

1.05 PERMANENT SEED MIX FOR TURF AREAS ON PRIVATE PROPERTY SHALL CONFORM TO IDOT STANDARDS AND SPECIFICATIONS FOR CLASS 1 (LAWN MIXTURE). CONTRACTOR SHALL FURNISH AND INSTALL 4" MINIMUM TOPSOIL AND FERTILIZER ALONG WITH SEED.

1.06 EROSION CONTROL FABRIC NAG S150 SHALL BE APPLIED TO ALL DISTURBED TURF AREAS ALONG WITH PERMANENT SEEDING. FOLLOW MANUFACTURER SPECIFICATIONS FOR INSTALLATION. CONTRACTOR SHALL NOTE ALL AREAS WHERE NAG SC150 HAS BEEN INSTALLED RELATIVE TO ASBUILT GRADES AND FURNISH THESE BOUNDARIES TO THE CIVIL ENGINEER UPON REQUEST. PERMANENT SEEDING SHOULD BE PLANTED AS SOON AS IT IS PRACTICAL TO ENSURE PROPER GERMINATION PRIOR TO TERMINATION OF PERMIT COVERAGE.

1.07 CONTRACTOR SHALL REMOVE STRAW WADDLE DITCH CHEKCS, AGGREGATE OUTLET PROTECTION, AND ALL OTHER TEMPORARY EROSION CONTROL MEASURES AFTER SEED HAS ESTABLISHED.

1.08 SILT FENCE LOCATED BEHIND SIDEWALK TO BE PLACED AFTER SIDEWALK CONSTRUCTION TO PREVENT SOIL FROM SPILLING ONTO FRESH PAVEMENT. NOT REQUIRED DURING MASS GRADING WORK.

SWPPP NOTES

1. CONTRACTOR SHALL BE ABIDE BY ALL REQUIREMENTS SET FORTH BY THE LATEST REVISION OF THE ILLINOIS NPDES GENERAL PERMIT (ILR10) FOR STORM WATER POLLUTION PREVENTION. LOCAL, STATE, AND FEDERAL AUTHORITIES RESERVE THE RIGHT TO REVIEW THE SITE FOR COMPLIANCE AND IMPOSE APPLICABLE PENALTIES FOR NON-COMPLIANCE.
2. CONTRACTOR SHALL NOTE ANY CHANGES OR ADDITIONS TO THE SWPPP AND THE DATES OF SAID CHANGES OR ADDITIONS ON THIS SITE MAP.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND MODIFYING BMP'S INCLUDING INTERMEDIATE BMP'S AS WARRANTED BY SITE CONDITIONS.
4. THE EROSION CONTROL PLAN ACCOMPANIES A WRITTEN SWPPP DOCUMENT PROVIDED FOR THIS PROJECT. REFER TO WRITTEN SWPPP FOR FULL REQUIREMENTS.
5. GENERAL CONTRACTOR SHALL SELF PERFORM SWPPP INSPECTIONS AND MAINTENANCE.

TREE INSTALLATION

1. THREE DECIDUOUS TREES ARE REQURED ALONG ALBERT AVENUE AS PART OF PARKING LOT CONNECTION.
2. CONTRACTOR TO INSTALL A TOTAL OF THREE (3) "AUTUMN BLAZE" MAPLES, MINIMUM 2" CALIPER IN THE LOCATIONS DESIGNATED.
3. FOR THE TREE TO BE INSTALLED WITHIN THE CURBED ISLAND, CONTRACTOR SHALL VERIFY THAT THERE IS AT LEAST 12" CONSISTENT TOPSOIL DEPTH WITHIN THE ISLAND TO PROMOTE ROOT DEVELOPMENT.
4. SEE DETAIL PAGE FOR TREE INSTALLATION DETAIL.

BENCHMARKS

DESCRIPTION	ELEVATION (WinGIS)
BENCHMARK 1 TOP SOUTH BOLT ON FIRE HYDRANT LOCATED APPROXIMATELY 10' NORTH OF W. JEFFERSON ST. AND 25' WEST OF ALBERT AVE.	797.99
BENCHMARK 2 TOP SOUTH BOLT ON FIRE HYDRANT LOCATED APPROXIMATELY 10' NORTH OF W. JEFFERSON ST. AND 25' EAST OF N. SUNSET AVE.	777.12
BENCHMARK 3 TOP BOLT BY "M" IN "MUELLER" ON FIRE HYDRANT APPROXIMATELY 25' SOUTH OF MULBERRY ST. AND 10' WEST OF N. SUNSET AVE.	786.71
BENCHMARK 4 TOP ARROW BOLT ON FIRE HYDRANT LOCATED APPROXIMATELY 10' NORTH OF MULBERRY ST. AND 25' WEST OF ALBERT AVE.	795.51

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RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
EROSION CONTROL PLAN

PROJECT INFORMATION			
Date	April 3, 2017		
Rev. Date			
RLJA Proj	2015-052		

SHEET NUMBER
C02 OF C08

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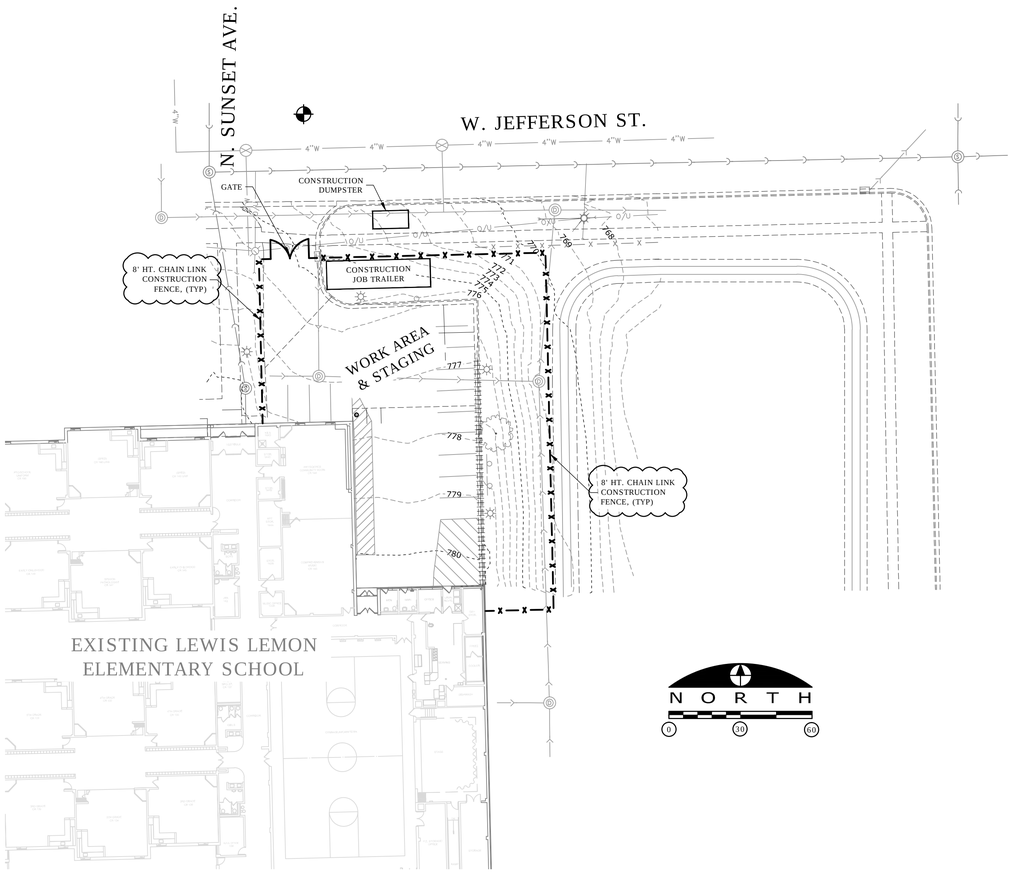
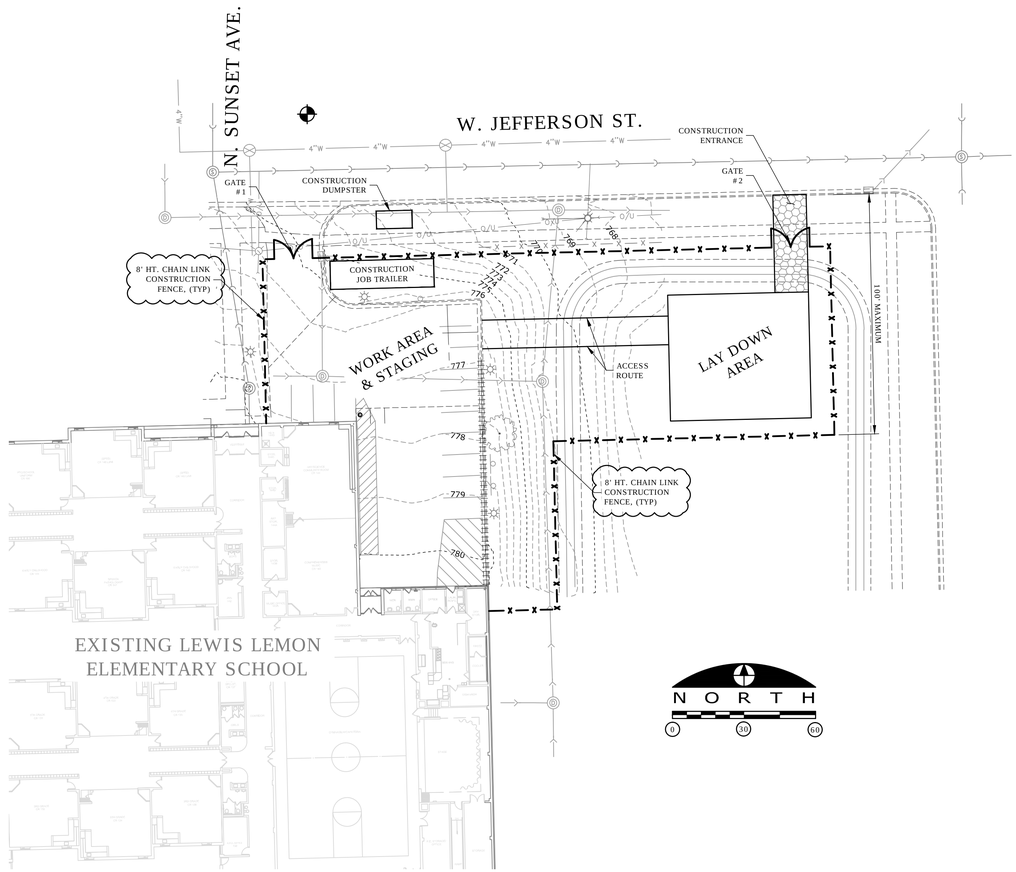


OPTION 1



OPTION 2

CONSTRUCTION STAGING NOTES

1. TWO STAGING OPTIONS ARE PRESENTED FOR THE CONTRACTOR TO CHOOSE FROM. OPTION 1 IS PRESENTED AS A SMALLER FOOTPRINT. OPTION 2 IS SHOWN AS A LARGER FOOTPRINT WITH A LARGER STAGING AND LAY DOWN AREA. EITHER OPTION IS ACCEPTABLE TO THE OWNER. THE CONTRACTOR IS RESPONSIBLE TO INCLUDE ANY AND ALL STAGING COSTS IN THIER BID, REGARDLESS OF WHICH OPTION HE CHOOSES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A TEMPORARY PERMIT FROM THE CITY OF ROCKFORD FOR DUMPSTER AND TRAILER STORAGE ON PUBLIC RIGHT OF WAY.
3. CONTRACTOR WILL BE ALLOWED TO USE THE OWNER'S POWER FOR TEMPORARY POWER TO THE TRAILER. CONTRACTOR SHALL INCLUDE PROVISIONS IN HIS BID TO RUN POWER FROM THE SCHOOL TO TRAILER AS NECESSARY. OWNER WILL PAY FOR ALL POWER CONSUMPTION.
4. DAMAGE TO EXISTING FACILITIES NOT INTENDED FOR REMOVAL SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION SITE VISIT AND DOCUMENTATION WITH OWNER'S REPRESENTATIVE TO DOCUMENT EXISTING CONDITIONS PRIOR TO MOBILIZATION.
5. CONTRACTOR SHALL PROTECT EXISTING TRACK SURFACE WITH ¾" PLYWOOD AND STONE CAP. ANY DAMAGE TO TRACK CAUSED BY STAGING OR CONSTRUCTION OPERATIONS IS RESPONSIBILITY OF CONTRACTOR TO REPAIR.
6. CONTRACTOR SHALL RESTORE ALL TURF AREAS DISTURBED BY CONSTRUCTION ACTIVITIES, INCLUDING STAGING AREAS, TO EXISTING CONDITIONS WITH A MINIMUM OF 4" TOPSOIL, SEED, FERTILIZER, AND EROSION CONTROL BLANKET (NAG S150 OR BETTER).

BENCHMARKS

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CAFETERIA ADDITION AND REMOLDELING TO
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ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
STAGING PLAN AND NOTES

PROJECT INFORMATION

Date	April 3, 2017		
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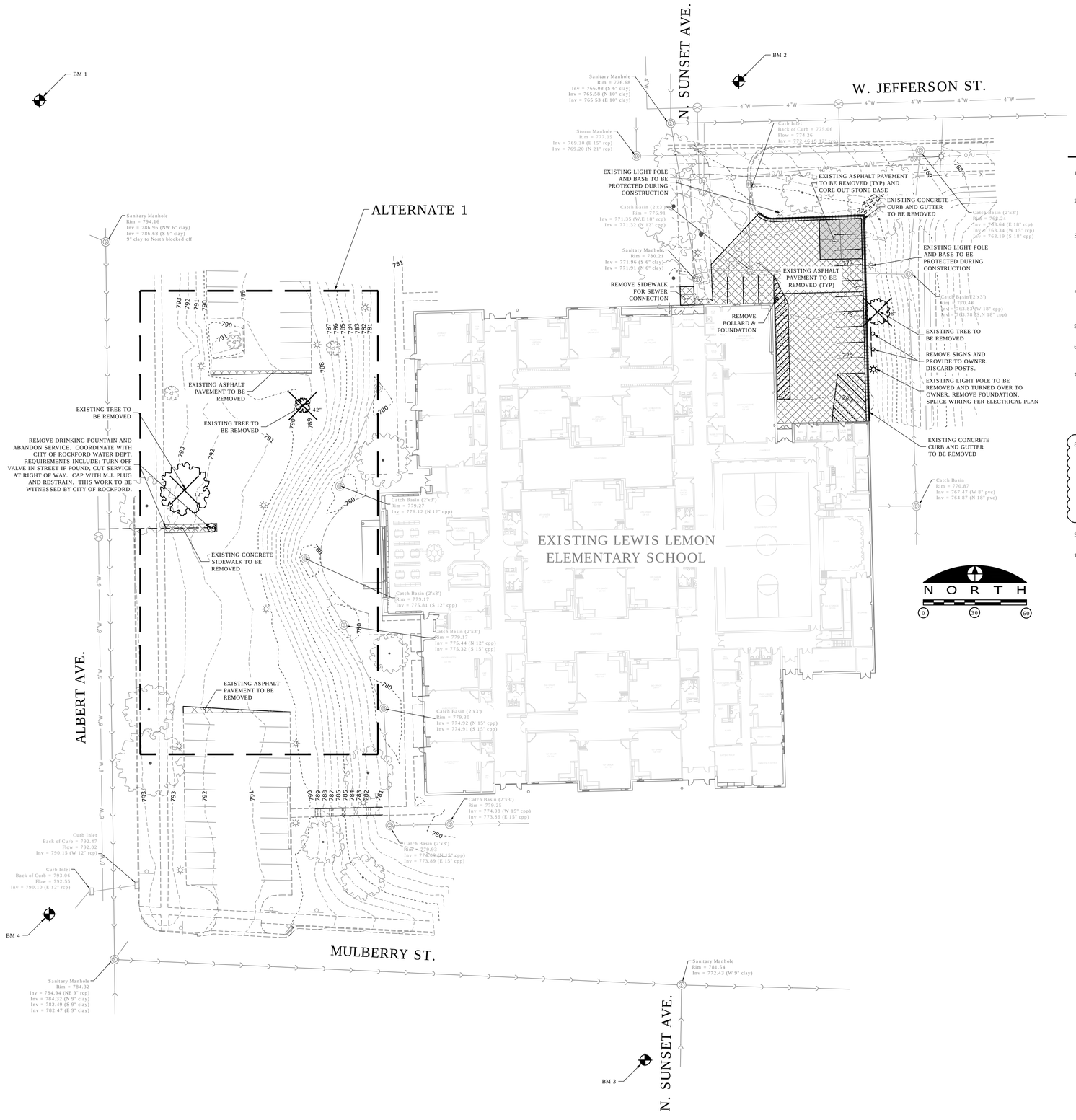

DEMOLITION NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEMOLITION AND REMOVAL OF ALL ITEMS THAT IMPEDE THE PROPER PLACEMENT OF ANY ITEMS PROPOSED BY THIS PLAN SET.
2. DISPOSAL OF ALL MATERIALS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. ALL WASTE MATERIAL SHALL BE DISPOSED OF OFF SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL MATERIALS FROM THE SITE ALONG WITH ALL ASSOCIATED PERMITS AND REGULATORY REQUIREMENTS.
3. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITY SERVICES TO ADJACENT LOTS. INTERRUPTION OF SERVICES TO ADJACENT LOTS SHALL NOT OCCUR WITHOUT PROPER APPROVAL. 48 HRS NOTICE SHALL BE GIVEN TO THE PROPERTY OWNERS PRIOR TO THE CONNECTION OF THE NEW SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS ASSOCIATED WITH THE CONNECTION OF TEMPORARY UTILITY SERVICES, IF REQUIRED, TO FACILITATE CONSTRUCTION STAGING.
4. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING PARKING, SIDEWALKS, DRIVES, ETC. TO BE CLEAR AND FREE OF ANY CONSTRUCTION ACTIVITY AND/OR EXCAVATED AND HAULED MATERIAL TO ENSURE EASY AND SAFE PEDESTRIAN AND VEHICULAR TRAFFIC TO AND FROM ADJACENT SITES.
5. THE CONTRACTOR SHALL PERFORM A FULL-DEPTH SAW CUT ALONG THE PERIMETER OF PAVEMENT REMOVAL THAT ABUTS EXISTING PAVEMENT THAT IS TO REMAIN.
6. ANY DAMAGE SUSTAINED BY ITEMS THAT ARE TO REMAIN IN PLACE SHALL BE REPAIRED OR REPLACED TO THE OWNER'S SATISFACTION AT NO COST TO THE OWNER.
7. SITE RESTORATION: CONTRACTOR SHALL FURNISH AND SUPPLY A MINIMUM 4" TOPSOIL FOR ALL DISTURBED AREAS, INSTALL GRASS SEED EQUIVALENT TO IDOT CLASS 1 (LAWN MIX), STARTER FERTILIZER MIX IN ACCORDANCE WITH STANDARD SPECIFICATIONS, AND PROTECT SEEDED AREAS WITH EROSION CONTROL BLANKET, EQUIVALENT OR BETTER THAN NORTH AMERICAN GREEN S150. SUBSEQUENT MAINTENANCE OF SEED, INCLUDING WATERING AND MOWING, WILL BE BY OWNER. IF ANY AREAS FAIL TO GERMINATE, CONTRACTOR WILL RETURN AND RESEED AT NO COST TO OWNER.
8. TESTING: OWNER IS RESPONSIBLE FOR ALL SITE RELATED SOIL TESTING. OWNER SHALL INFORM THE CONTRACTOR OF HIS SELECTED TESTING ENGINEER AND CONTRACTOR SHALL COORDINATE ANY INSPECTIONS NECESSARY WITH THE TESTING ENGINEER DIRECTLY. FOOTING EXCAVATIONS SHALL BE INSPECTED BY THE TESTING ENGINEER PRIOR TO ANY PLACEMENT OF FOOTINGS. TESTING OF NEW CONCRETE AND ASPHALT SHALL ALSO BE BY THE OWNER OR HIS DESIGNATED ENGINEER. THE OWNER RESERVES THE RIGHT TO LIMIT CERTAIN TESTS OR INCREASE THE FREQUENCY OF TESTING AT HIS SOLE DISCRETION. A PROOF ROLL IS REQUIRED ON ALL EXCAVATED SUBGRADE PRIOR TO INSTALLATION OF STONE. A PROOF ROLL OF STONE BASE MAY BE REQUESTED BY THE OWNER IF HE DEEMS NECESSARY.
9. THE CONTRACTOR SHALL COORDINATE AND SCHEDULE UTILITY REMOVALS OR RELOCATIONS WITH THE RESPECTIVE UTILITY COMPANY.
10. SEE SHEET C07 FOR SPECIAL PAVEMENT SECTION OF PARKING AREA ALONG ALBERT AVENUE.

LEGEND

- PROPERTY LINE ℄
- SECTION LINE
- RIGHT-OF-WAY LINE
- LOT LINE
- EASEMENT LINE
- SETBACK LINE
- CENTER LINE ℄
- CURB AND GUTTER
- OVERHEAD UTILITIES
- GAS LINE
- FIBER OPTIC LINE
- CABLE TELEVISION LINE
- TELEPHONE LINE
- ELECTRIC LINE
- SANITARY SEWER LINE
- STORM SEWER LINE
- FENCE
- CONTOUR LINE
- SANITARY MANHOLE
- CLEANOUT
- STORM MANHOLE | AREA INLET
- INLET SPECIAL
- CURB CATCHBASIN | INLET
- CONCRETE FLARED END SECTION
- METAL OR PLASTIC FLARED END SECTION
- VALVE VAULT
- VALVE BOX
- FIRE HYDRANT ASSEMBLY
- SPRINKLER
- WELL
- MONITORING WELL
- UTILITY POLE
- GUY WIRE AND ANCHOR
- ELECTRIC TRANSFORMER AND PAD
- ELECTRIC PEDESTAL
- ELECTRIC METER
- CABLE JUNCTION BOX - PAD MOUNTED
- CABLE PEDESTAL
- TELEPHONE JUNCTION VAULT
- TELEPHONE PEDESTAL
- GAS METER
- GAS VALVE
- A.D.A. COMPLIANT PARKING
- LUMINAIRE AND POST
- SIGN AND POST
- BOLLARD
- AIR CONDITIONER
- FLAG POLE
- BENCHMARK LOCATION
- DECIDUOUS TREE
- CONIFEROUS TREE
- BUSH
- MAILBOX
- TRAFFIC SIGNAL
- SIGNAL CONTROL CABINET
- HANDHOLE
- YARD LIGHT
- PARKING BLOCK
- PARKING METER
- REMOVE EXISTING TREE

BENCHMARKS

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RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
EXISTING CONDITIONS AND REMOVALS PLAN

PROJECT INFORMATION			
Date	April 3, 2017		
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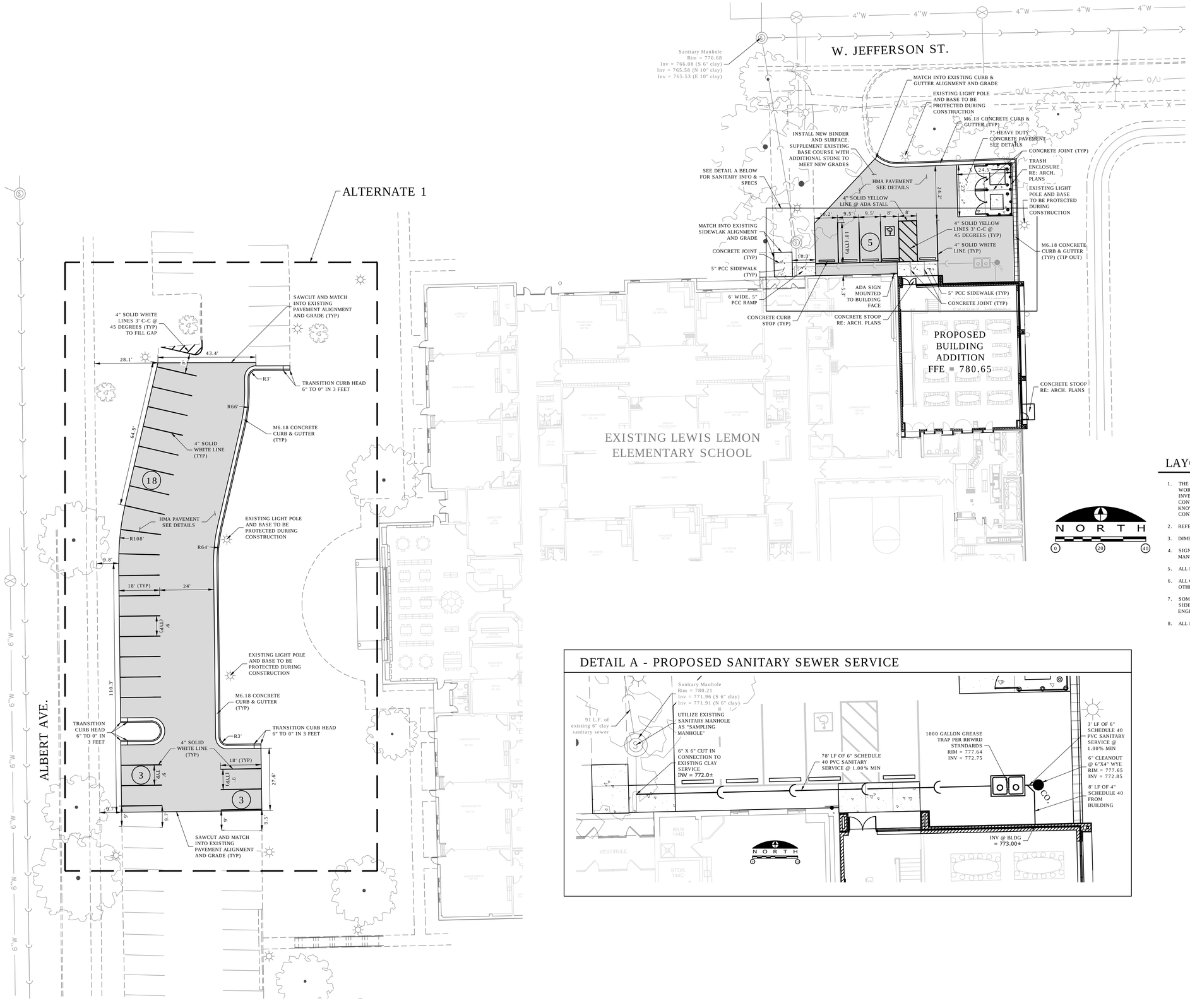
C04 OF C08



LEGEND

- PROPOSED PROPERTY LINE ℄
- PROPOSED RIGHT-OF-WAY LINE
- PROPOSED LOT LINE
- PROPOSED EASEMENT LINE
- PROPOSED SETBACK LINE
- PROPOSED CENTER LINE ℄
- PROPOSED CURB AND GUTTER
- PROPOSED CONCRETE PAVEMENT, [DESCRIPTION]
- PROPOSED CONCRETE PAVEMENT, [DESCRIPTION]
- PROPOSED CONCRETE PAVEMENT, [DESCRIPTION]
- PROPOSED ASPHALT PAVEMENT, [DESCRIPTION]
- PROPOSED ASPHALT PAVEMENT, [DESCRIPTION]
- PROPOSED PAVEMENT MARKING FOR 60° PARKING STALLS
- PROPOSED PAVEMENT MARKING FOR 90° PARKING STALLS
- PROPOSED A.D.A. COMPLIANT PARKING
- XX — PROPOSED NUMBER OF PARKING STALLS PER ROW
- PROPOSED SIGN AND POST
- PROPOSED BOLLARD
- PROPOSED POLE MOUNTED LUMINAIRE
- PROPOSED ORNAMENTAL POST AND LUMINAIRE
- PARKING BLOCK
- SYSL, 4" — PROPOSED PAVEMENT MARKING, SINGLE YELLOW SOLID LINE, 4" WIDE
- DYSL, 4" — PROPOSED PAVEMENT MARKING, DOUBLE YELLOW SOLID LINE, 4" WIDE
- SYDL, 4" — PROPOSED PAVEMENT MARKING, SINGLE YELLOW DASHED LINE, 4" WIDE
- SWSL, 4" — PROPOSED PAVEMENT MARKING, SINGLE WHITE SOLID LINE, 4" WIDE
- SWSL, 6" — PROPOSED PAVEMENT MARKING, SINGLE WHITE SOLID LINE, 6" WIDE
- SWSL, 24" — PROPOSED PAVEMENT MARKING, SINGLE WHITE SOLID LINE, 24" WIDE
- X — X — PROPOSED FENCE
- X.XX — SEE CORRESPONDING KEY NOTE ON THIS SHEET

LAYOUT NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATIONS OF THE BENCHMARKS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL ALSO FIELD VERIFY LOCATION AND ELEVATION OF EXISTING PIPE INVERTS, FLOOR ELEVATIONS, CURB OR PAVEMENT WHERE MATCHING INTO EXISTING WORK. THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL CONTROL BY REFERENCING SHOWN COORDINATES TO KNOWN PROPERTY LINES. NOTIFY ENGINEER OF DISCREPANCIES IN EITHER VERTICAL OR HORIZONTAL CONTROL PRIOR TO PROCEEDING WITH WORK.
2. REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS.
3. DIMENSIONS THAT LOCATE THE BUILDING ARE MEASURED TO THE OUTSIDE FACE OF THE BUILDING.
4. SIGN CONSTRUCTION AND PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
5. ALL RADII ARE DIMENSIONED TO THE EDGE OF PAVEMENT.
6. ALL COORDINATES AND DIMENSIONS ARE REFERENCED TO THE EDGE OF PAVEMENT, UNLESS NOTED OTHERWISE.
7. SOME FIELD ADJUSTMENTS MAY BE NECESSARY AT POINTS WHERE PROPOSED PAVEMENT, CURB AND SIDEWALKS MEET EXISTING PAVEMENT, CURB AND SIDEWALKS. REVIEW ANY REQUIRED CHANGES WITH ENGINEER PRIOR TO CONSTRUCTION OF WORK.
8. ALL PAVEMENT MARKINGS SHALL BE PAINT (2 COATS).

DETAIL A - PROPOSED SANITARY SEWER SERVICE

BENCHMARKS

DESCRIPTION	ELEVATION (WinGIS)
BENCHMARK 1 TOP SOUTH BOLT ON FIRE HYDRANT LOCATED APPROXIMATELY 10' NORTH OF W. JEFFERSON ST. AND 25' WEST OF ALBERT AVE.	797.99
BENCHMARK 2 TOP SOUTH BOLT ON FIRE HYDRANT LOCATED APPROXIMATELY 10' NORTH OF W. JEFFERSON ST. AND 25' EAST OF N. SUNSET AVE.	777.12
BENCHMARK 3 TOP BOLT BY "M" IN "MUELLER" ON FIRE HYDRANT APPROXIMATELY 25' SOUTH OF MULBERRY ST. AND 10' WEST OF N. SUNSET AVE.	786.71
BENCHMARK 4 TOP ARROW BOLT ON FIRE HYDRANT LOCATED APPROXIMATELY 10' NORTH OF MULBERRY ST. AND 25' WEST OF ALBERT AVE.	795.51

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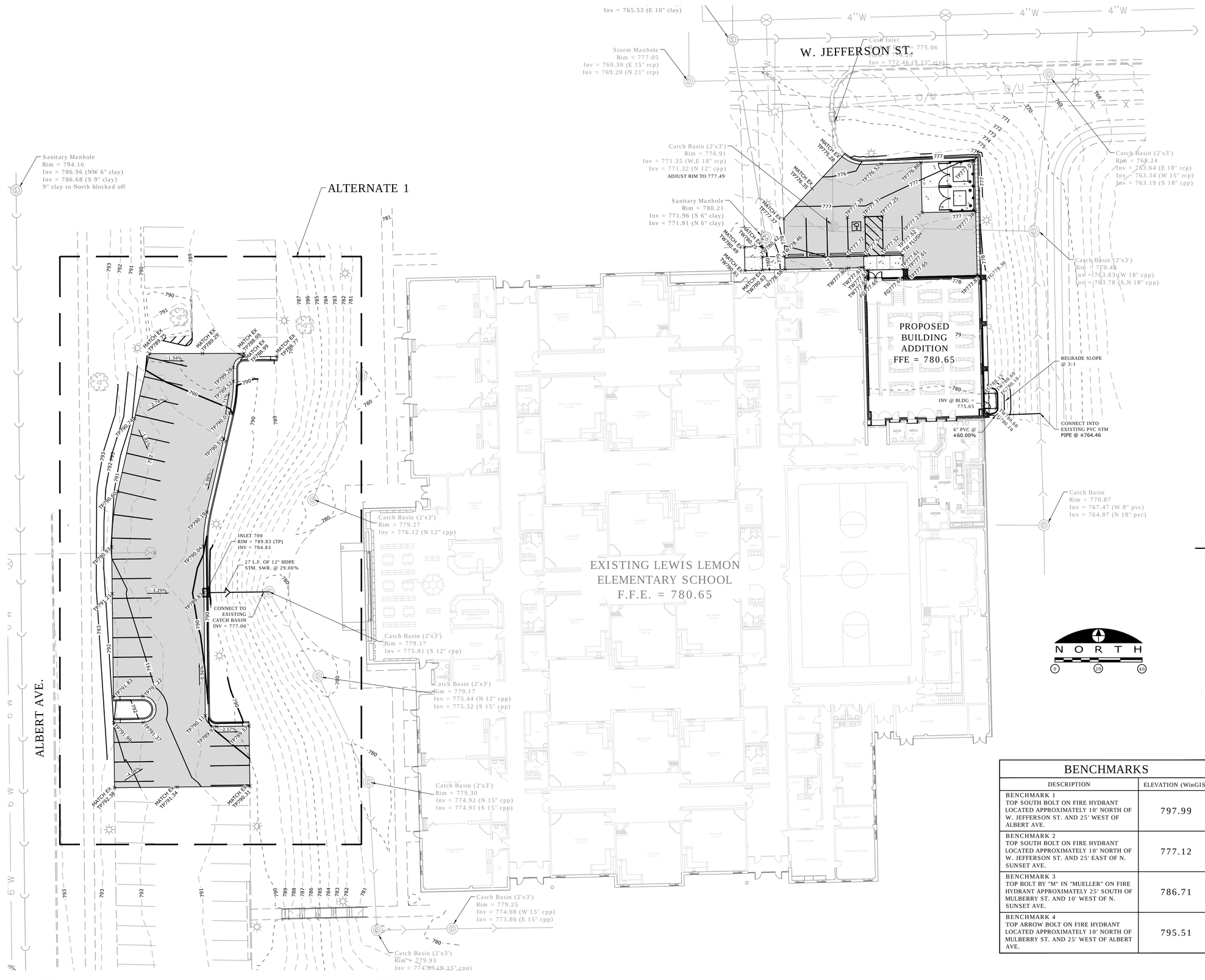
RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
LAYOUT AND UTILITY PLAN

PROJECT INFORMATION

Date	April 3, 2017
Rev. Date	
RLJA Proj	2015-052

SHEET NUMBER
C05 OF C08



LEGEND

- PROPOSED PROPERTY LINE ℄
- PROPOSED RIGHT-OF-WAY LINE
- PROPOSED LOT LINE
- PROPOSED EASEMENT LINE
- PROPOSED CENTER LINE ℄
- PROPOSED CURB AND GUTTER
- PROPOSED PAVEMENT MARKING FOR 60° PARKING STALLS
- PROPOSED PAVEMENT MARKING FOR 90° PARKING STALLS
- PROPOSED POLE MOUNTED LUMINAIRE
- PROPOSED ORNAMENTAL POST AND LUMINAIRE
- PROPOSED SANITARY SEWER LINE
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY CLEANOUT
- PROPOSED SANITARY RISER
- PROPOSED WATER LINE
- PROPOSED VALVE VAULT
- PROPOSED VALVE BOX
- PROPOSED CURB STOP / BUFFALO BOX
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED ELECTRIC LINE
- PROPOSED UTILITY POLE
- PROPOSED ELECTRIC TRANSFORMER AND PAD
- PROPOSED GAS LINE
- PROPOSED GAS METER
- PROPOSED TELEPHONE LINE
- BENCHMARK LOCATION
- 750 PROPOSED CONTOUR LINE
- TPXXX.XX PROPOSED TOP OF PAVEMENT ELEVATION
- TWXXX.XX PROPOSED TOP OF SIDEWALK ELEVATION
- FGXXX.XX PROPOSED FINISHED GRADE ELEVATION
- PROPOSED STORM SEWER LINE
- PROPOSED GRADE BREAK LINE
- PROPOSED INLET, 2'X3', CURB
- PROPOSED INLET, 2'X3', AREA
- PROPOSED INLET, TYPE A, CURB
- PROPOSED INLET, TYPE A, AREA
- PROPOSED INLET, TYPE B, CURB
- PROPOSED INLET, TYPE B, AREA
- PROPOSED INLET SPECIAL, TYPE 2
- PROPOSED INLET SPECIAL, TYPE 5
- PROPOSED STORM MANHOLE
- PROPOSED FLARED END SECTION
- PROPOSED STORM SEWER CLEANOUT
- X.XX SEE CORRESPONDING KEY NOTE ON THIS SHEET

GRADING NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATIONS OF THE BENCHMARKS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL ALSO FIELD VERIFY LOCATION AND ELEVATION OF EXISTING PIPE INVERTS, FLOOR ELEVATIONS CURB OR PAVEMENT WHERE MATCHING INTO EXISTING WORK. THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL OR VERTICAL CONTROL BY REFERENCING SHOWN COORDINATES OR ELEVATIONS TO HORIZONTAL OR VERTICAL CONTROL POINTS PRIOR TO PROCEEDING WITH WORK.
2. ALL UNSURFACED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL AND SEEDED AND WATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
3. ALL STORM SEWER PIPE IS TO BE REINFORCED CONCRETE CULVERT PIPE CLASS IV UNLESS NOTED OTHERWISE.
4. THE MAXIMUM SLOPE RATIO ON CUT/FILL SLOPES IS 3 HORIZONTAL TO 1 VERTICAL.
5. PROPERTY CORNERS SHALL BE CAREFULLY PROTECTED UNTIL THEY HAVE BEEN REFERENCED BY A PROFESSIONAL LAND SURVEYOR. PROPERTY MONUMENTS DISTURBED BY THE CONTRACTOR'S OPERATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
6. CONTRACTOR SHALL SET ALL CLEANOUT, MANHOLE AND INLET CASTINGS, FIRE HYDRANTS AND VALVE BOXES TO FINISHED GRADE.
7. ALL PROPOSED PAVED AREAS SHALL BE STRIPPED OF ALL TOPSOIL AND UNSUITABLE MATERIAL AND EXCAVATED OR FILLED TO WITHIN 0.10 FEET OF DESIGN SUBGRADE.
8. THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE AT THE CONCLUSION OF EACH WORKING DAY.

BENCHMARKS

DESCRIPTION	ELEVATION (WinGIS)
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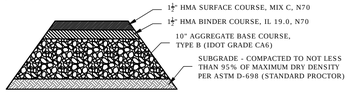
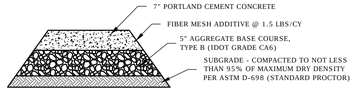
C06 OF C08

PAVEMENT DETAILS

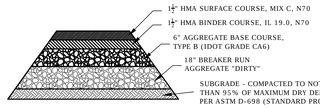
NOT TO SCALE



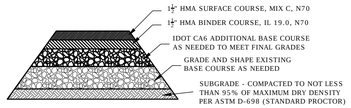
STANDARD ASPHALT PAVEMENT WHERE NEW BASE REQUIRED



HEAVY DUTY CONCRETE PAVEMENT



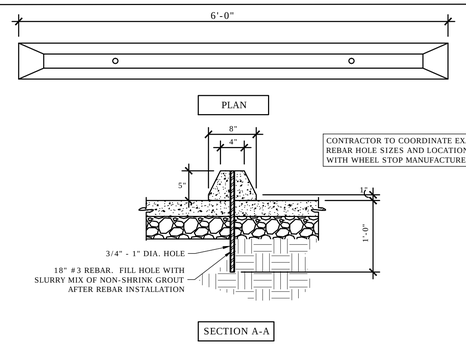
ASPHALT PAVEMENT FOR PARKING AREA ALONG ALBERT AVE



ASPHALT PAVEMENT FOR OVERLAY SECTIONS

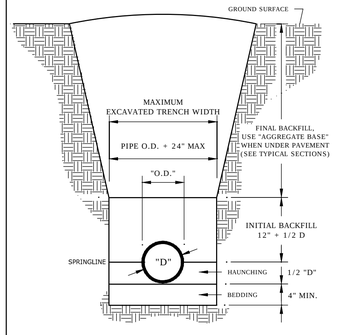
WHEEL STOP DETAIL

NOT TO SCALE



PIPE EMBEDMENT

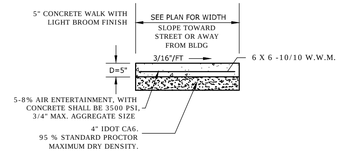
NOT TO SCALE



CONCRETE SIDEWALK DETAILS

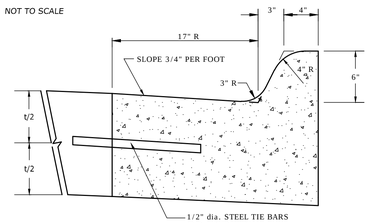
NOT TO SCALE

STANDARD SIDEWALK



COMBINATION CONC. CURB AND GUTTER, TYPE M-6.18 (MODIFIED)

NOT TO SCALE



t shall be 9" minimum when adjacent to flexible pavement.

Expansion joints at 100' intervals and at construction joints including 1" Premoulded Joint Filler and 1" Smooth Dowels (2).

Construction joints at 15' intervals.

NOTE: TIP OUT GUTTER TO HAVE GUTTER SLOPE OF 2% AWAY FROM CURB.

THICKNESS (t) = thickness of pavement and gutter flag.

ADJACENT PCC PAVEMENT - Adjacent PCC pavement or base course less than 1' in width shall be constructed monolithic with the curb and gutter. This area of pavement will be included in the measured area of the adjacent pavement.

DEPRESSED CURBS - The top of curbs shall be depressed where the curb and gutter is constructed across alleys and for private drives or where directed by Engineer. The transition from full height curb to depressed curb shall be made at the rate of 3" per foot of length or flatter.

JOINTS - Joints shall be constructed as detailed hereon. Joints shall be placed in prolongation with pavement joints. Expansion joints adjacent to drainage casting may be placed in prolongation with other joint types.

SUBGRADE - 12" thick improved subgrade shall extend to the back of curb.

MONOLITHIC CONSTRUCTION - Curbs and combination curb and gutter may be constructed monolithically with PCC pavement at the option of the Contractor. Tie bars between pavement and gutter will not be required. Pavement reinforcement (when required) shall be extended laterally to within 3" to 5" from the back of the curb.

Curb and combination curb and gutter may be constructed monolithically with PCC base course. Tie bars will be required. Tie bars shall be held in proper location by support pins and approved mechanical means.

Longitudinal joints between the PCC pavement or PCC base course and curb or combination curb and gutter will not be required.

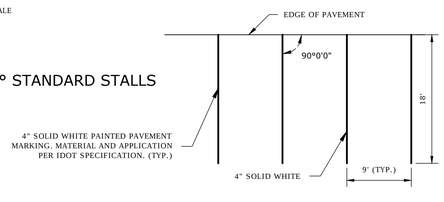
SLIPFORM CONSTRUCTION - Vertical faces may be battered at the rate of 3/4" per foot of height to aid in slipform operations.

TIE BARS/DOWEL BARS - Longitudinal joint ties bars shall be in accordance with details for Bulkhead Longitudinal Construction Joint shown on Standard 2323. Transverse joint use one tie/dowel bar for gutter width less than 18" placed at midpoint. Tie/dowel bars in the transverse hinge/contraction joints will not be required for non-monolithic construction.

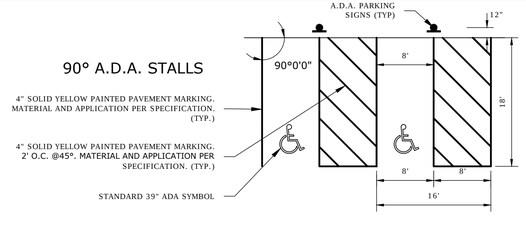
TYPICAL 90 DEGREE PARKING STRIPING DETAILS

NOT TO SCALE

90° STANDARD STALLS



90° A.D.A. STALLS



ACCESSIBLE PARKING SIGN DETAIL

NOT TO SCALE

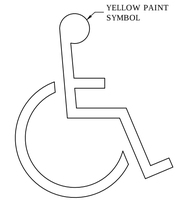
COLOR: TEXT, ARROW, AND BORDER; GREEN WHITE SYMBOL ON BLUE BACKGROUND BACKGROUND WHITE

18" X 12" 18 GA. STEEL BAKED ENAMEL INTERNATIONAL HANDICAP SYMBOL MANUFACTURED IN ACCORDANCE WITH MUTCD R7-8

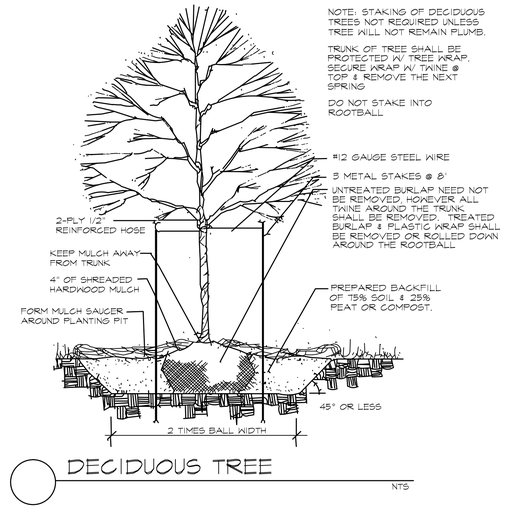
ONE SIGN PER GROUP MUST HAVE ADDITIONAL VAN ACCESSIBLE SIGN

NOTE:
FOR THIS PROJECT MOUNT SIGN TO BUILDING

39" STANDARD ACCESSIBLE SYMBOL



ACCESSIBLE SYMBOL



DECIDUOUS TREE NTS

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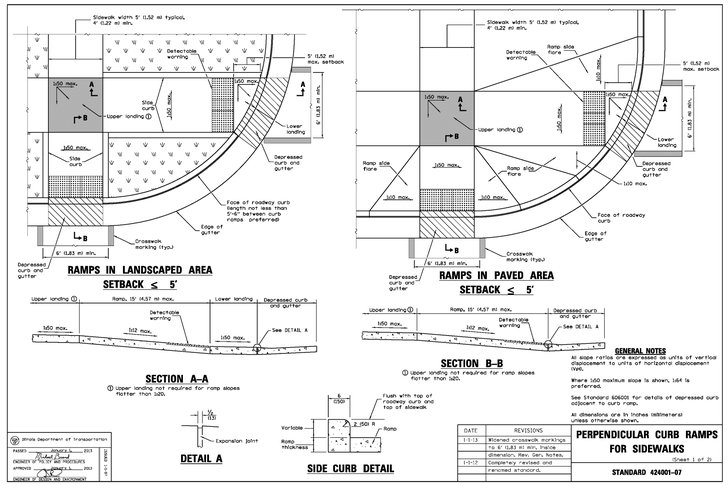
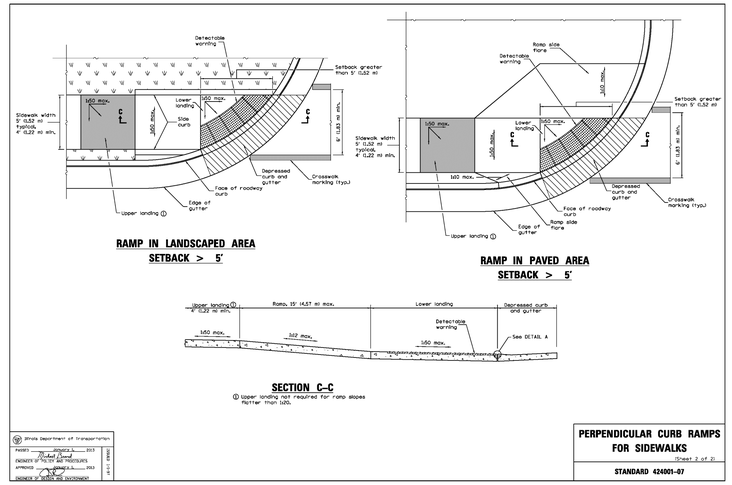
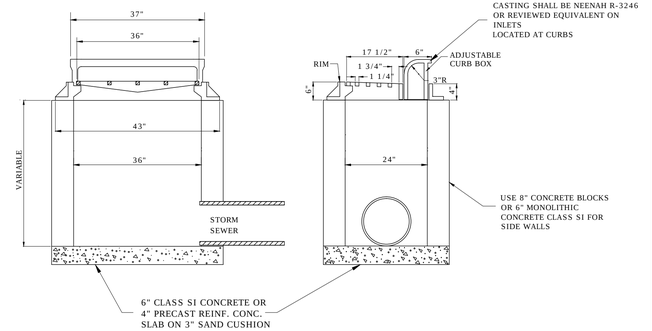


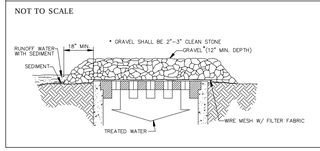


INLET TYPE 700



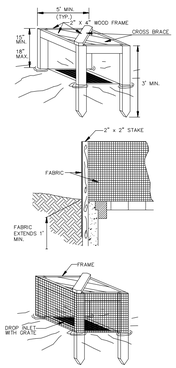
TEMP. GRAVEL AND WIRE MESH INLET SEDIMENT FILTER (IP2)

NOT TO SCALE

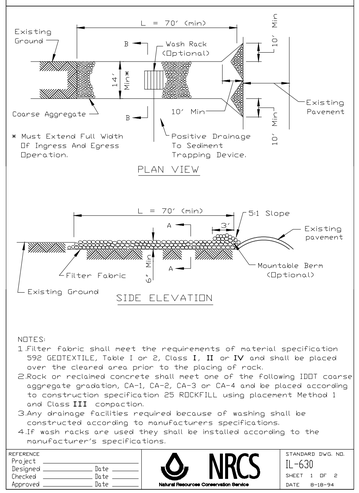


TEMP. SILT FENCE INLET PROTECTION (IP1)

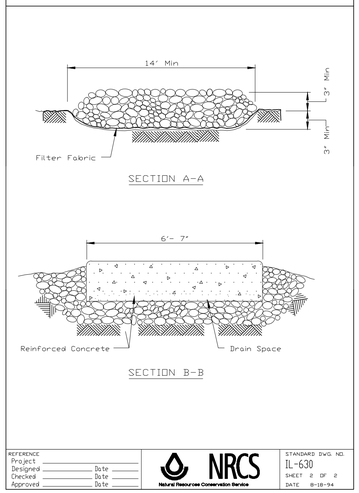
NOT TO SCALE

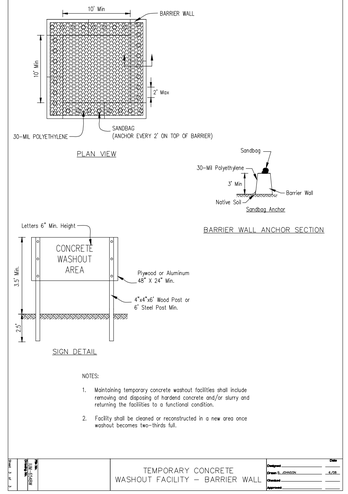


STABILIZED CONSTRUCTION ENTRANCE PLAN



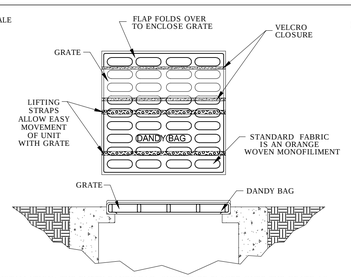
STABILIZED CONSTRUCTION ENTRANCE PLAN





TEMP. DANDY PRODUCTS, INC. DANDY BAG

NOT TO SCALE (IP2 ALT)



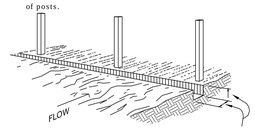
INSTALLATION: THE EMPTY DANDY BAG SHOULD BE PLACED OVER THE GRATE AS THE GRATE STANDS ON END. IF USING OPTIONAL OIL ABSORBENTS; PLACE ABSORBENT PILLOW IN POUCH, ON THE BOTTOM (BELOW-GRADE SIDE) OF THE UNIT. ATTACH ABSORBENT PILLOW TO TETHER LOOP. TUCK THE ENCLOSURE FLAP INSIDE TO COMPLETELY ENCLOSE THE GRATE. HOLDING THE LIFTING DEVICES (DO NOT RELY ON LIFTING DEVICES TO SUPPORT THE ENTIRE WEIGHT OF THE GRATE), PLACE THE GRATE INTO ITS FRAME.

MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY OF UNIT AFTER EACH STORM EVENT. REMOVE SEDIMENT THAT HAS ACCUMULATED WITHIN THE CONTAINMENT AREA OF THE DANDY BAG AS NEEDED. IF USING OPTIONAL OIL ABSORBENTS; REMOVE AND REPLACE ABSORBENT PILLOW WHEN NEAR SATURATION.

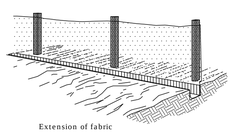
TEMP. SILT FENCE (PERIMETER) DETAIL (PSF) CONSTRUCTION OF A SILT FENCE

NOT TO SCALE

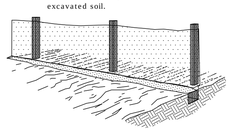
1. Set posts and excavate a 4"x4" trench upslope along the line of posts.

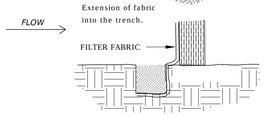


2. Attach the filter fabric to the post and extend it into the trench.



3. Backfill and compact the excavated soil.





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IDOT AND EROSION CONTROL DETAILS

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DESIGN DATA

CODES AND STANDARDS

"INTERNATIONAL BUILDING CODE", 2015 EDITION W/AMENDMENTS
"ACI 318, BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", LATEST EDITION, AMERICAN CONCRETE INSTITUTE
"ACI 301, SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS", LATEST EDITION, AMERICAN CONCRETE INSTITUTE
"ACI 530.1, SPECIFICATIONS FOR MASONRY STRUCTURES", LATEST EDITION
"BUILDING CODE REQUIREMENTS FOR ENGINEERED BRICK MASONRY", LATEST EDITION, BRICK INSTITUTE OF AMERICA
"AMERICAN STANDARD BUILDING CODE REQUIREMENTS FOR MASONRY", LATEST EDITION
"SPECIFICATIONS FOR THE DESIGN OF LOAD BEARING CONCRETE MASONRY", LATEST EDITION, NATIONAL CONCRETE MASONRY ASSOCIATION
"ASCE 7, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES", LATEST EDITION, AMERICAN SOCIETY OF CIVIL ENGINEERS
"MANUAL OF STEEL CONSTRUCTION", 13th EDITION AMERICAN INSTITUTE OF STEEL CONSTRUCTION
"DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION,
"AWS D1.1, STRUCTURAL WELDING CODE, STEEL", LATEST EDITION, AMERICAN WELDING SOCIETY

DESIGN LOADS

ROOF LIVE LOADS

GROUND SNOW	25 PSF
SNOW EXPOSURE FACTOR, Ce	1.0
SNOW LOAD IMPORTANCE FACTOR, I	1.1
THERMAL FACTOR, Ct	1.0
ROOF SNOW (DESIGN)	SEE DRIFT DIAGRAM ON 2/S2
DRIFT LOADS AS REQUIRED	

WIND LOADS

BASIC WIND SPEED	VULT = 120 MPH VASD = 93 MPH
EXPOSURE	B
WIND LOAD IMPORTANCE FACTOR	1.0
MAIN WIND FORCE RESISTING SYSTEM (DESIGN)	20 PSF
COMPONENTS AND CLADDING (DESIGN)	30 PSF (40 PSF @ CORNERS & PARAPETS)
NET UPLIFT – ROOF AND METAL DECK	20 PSF

EARTHQUAKE LOADS

SEISMIC RISK CATEGORY	III
SEISMIC DESIGN CATEGORY	B
SEISMIC LOAD IMPORTANCE FACTOR	1.25
SPECTRAL RESPONSE COEFFICIENT (SDS)	0.125g
SPECTRAL RESPONSE COEFFICIENT (SD1)	0.090g
SITE CLASS	D
SEISMIC FORCE RESISTING SYSTEM	INT. REINF. SHEAR WALLS & INT. STEEL MF
LATERAL FORCE PROCEDURE	EQUIVALENT
SEISMIC BASE SHEAR – NS	7.5 K
SEISMIC BASE SHEAR – EW	9.5 K

MATERIALS

CONCRETE

NORMAL WEIGHT CONCRETE (145 PCF) 28 DAY COMPRESSIVE STRENGTH AS FOLLOWS:

APPLICATION

FOOTINGS	3000 PSI
WALLS	3000 PSI
SLAB–ON–GRADE	4000 PSI
COMPOSITE FLOORS	4000 PSI

PROVIDE CONCRETE W/5% ± 1½% AIR ENTRAINED BY VOLUME IN CONCRETE PERMANENTLY EXPOSED TO WEATHER.

AIR ENTRAINING ADMIXTURE	ASTM C260
CEMENT (TYPE I, II, OR III)	ASTM C150

REINFORCING STEEL

DEFORMED REINFORCING BARS	ASTM A615, 60 KSI
WELDED WIRE FABRIC	ASTM A1064

STRUCTURAL STEEL

STRUCTURAL SHAPES	ASTM A992 GR. 50
MISCELLANEOUS SHAPES & PLATES	ASTM A36
STRUCTURAL TUBE (HSS)	ASTM A500 GR. B
STRUCTURAL PIPE	ASTM A53
ANCHOR BOLTS	ASTM A307 OR ASTM F1554 GR36
STRUCTURAL BOLTS	ASTM A325 N (U.N.O.)
WELDING ELECTRODES	E–70XX
HEADED STUDS (11.5 K)	⅞"Ø x 4"
EXPANSION ANCHORS, STUD TYPE	HILTI OR EQUAL

LIGHT GAGE STEEL

LIGHT GAGE STUDS (AS PRODUCED BY CLARK DIETRICH):

12, 14 AND 16GA. – 50 KSI	ASTM A653 GR. 50
18 AND 20GA. – 33 KSI	ASTM A653 GR. 33

METAL DECK

METAL ROOF DECK SHALL BE 1½", 22GA TYPE B ROOF DECK.

MASONRY

MASONRY PRISM MIN. COMPRESSIVE STRENGTH	F'm = 1500 PSI
LOAD BEARING/REINFORCED CMU 28 DAY COMPRESSIVE STRENGTH (3 UNIT)	ASTM C90, TYPE 1 1900 PSI MINIMUM
MORTAR 28 DAY COMPRESSIVE STRENGTH	ASTM C270, TYPE S 1500 PSI MINIMUM
GROUT 28 DAY COMPRESSIVE STRENGTH	ASTM C476 3000 PSI MINIMUM
MASONRY REINFORCEMENT, GALVANIZED	ASTM A951

FOUNDATIONS

FOUNDATIONS SUBSURFACE INVESTIGATION PREPARED BY TESTING SERVICE CORPORATION, REPORT FILE #L–83,579 DATED NOV. 20, 2015. FOUNDATIONS SHALL BE PLACED ON GROUND–IMPROVED SOILS, OR COMPACTED FILL HAVING A NET ALLOWABLE BEARING CAPACITY OF 3,000 PSF. GROUND IMPROVED SOILS SHALL BE DESIGNED BY AGGREGATE PIER DESIGNER/INSTALLER.

SLAB ON GRADE SHALL BE PLACED ON UNDISTURBED SOIL, OR COMPACTED FILL HAVING A MODULES OF SUBGRADE REACTION OF 100 POUNDS PER CUBIC INCH (IF ON NATIVE SOIL), OR 150 POUNDS PER CUBIC INCH (IF ON COMPACTED FILL) PER GEOTECH REPORT.

ALL FOUNDATION SHALL BEAR A MINIMUM OF 3'–6" BELOW ADJACENT FINISHED GRADE.

CONSTRUCTION

GENERAL

REPRODUCTION OF ALL OR PART OF THE STRUCTURAL CONTRACT PLANS OR DETAIL DRAWINGS FOR RESUBMITTAL AS SHOP OR ERECTION DRAWINGS IS PROHIBITED. SHOP DRAWING SUBMITTALS PRODUCED IN SUCH A MANNER SHALL BE REJECTED AND RETURNED WITHOUT FURTHER REVIEW.

THE STRUCTURAL CONTRACT PLANS AND DETAIL DRAWINGS ARE ONLY COMPLETE WHEN USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL DRAWINGS. CONTRACTOR(S) SHALL REFER TO THE COMPLETE SET OF DRAWINGS WHEN PREPARING SUBMITTAL PACKAGES.

IN CASE OF CONFLICT BETWEEN NOTES, DETAILS AND SPECIFICATIONS, THE MOST STRINGENT REQUIREMENT WILL GOVERN.

THE CONTRACTOR(S) SHALL COORDINATE THE DIMENSIONS ON THE STRUCTURAL DRAWINGS WITH THOSE ON THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL SITE DRAWINGS. THE CONTRACTOR(S) SHALL IMMEDIATELY REPORT ANY DISCREPANCIES TO THE ARCHITECT.

REFER TO PROJECT SPECIFICATIONS FOR REQUIRED INSPECTIONS AND ASSOCIATED COSTS.

MANUFACTURED ITEMS SHALL COMPLY WITH CODES AND SPECIFICATIONS, INDUSTRY STANDARDS, LOCAL JURISDICTIONS AND SPECIFIC CRITERIA NOTED HEREIN. COMPLIANCE SHALL INCLUDE, BUT NOT LIMITED TO, DESIGN MANUFACTURING AND INSTALLATION AND SHALL REST SOLELY ON THE MANUFACTURER.

THESE DRAWINGS DESCRIBE THE COMPLETED PROJECT. THEY DO NOT INDICATE ELEMENTS WHICH MAY BE NECESSARY FOR CONSTRUCTION SAFETY. THE CONTRACTOR(S) IS RESPONSIBLE FOR THE SAFETY IN AND ABOUT THE JOB SITE. OBSERVATION VISITS BY FIELD REPRESENTATIVE (ARCHITECT/ENGINEER) SHALL NOT INCLUDE OBSERVATIONS OF THE CONTRACTORS SAFETY PROVISIONS.

THIS PROJECT HAS BEEN DESIGNED FOR THE WEIGHTS AND MATERIALS INDICATED ON THE DRAWINGS AND FOR THE LIVE LOAD INDICATED IN THE DESIGN DATA. IT IS THE CONTRACTOR(S) RESPONSIBILITY TO DETERMINE ALLOWABLE CONSTRUCTION LOADS AND TO PROVIDE PROPER DESIGN AND CONSTRUCTION OF FALSEWORK, FORMWORK, STAGING, BRACING, SHEETING AND SHORING, ETC.

HIGHLAND ENGINEERING, P.C. PROHIBITS THE USE OF OR THE SUITABILITY OF THESE DOCUMENTS ON EXTENSIONS OF THIS PROJECT OR OTHER PROJECTS. ANY RE–USE WITHOUT WRITTEN PERMISSION OF HIGHLAND ENGINEERING, P.C. IS AT THE SOLE RISK OF OTHERS AND WITHOUT LEGAL EXPOSURE TO OR LIABILITY TO HIGHLAND ENGINEERING, P.C.

HIGHLAND ENGINEERING, P.C. IS NOT RESPONSIBLE FOR SUPERVISING, DIRECTING, OR HAVING CONTROL OVER THE CONSTRUCTION WORK. HIGHLAND ENGINEERING, P.C. DOES NOT HAVE THE AUTHORITY OR RESPONSIBILITY FOR THE CONTRACTORS CHOSEN MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION.

THE CONTRACTOR(S) IS RESPONSIBLE FOR MEETING THE SAFETY REQUIREMENTS OF ALL GOVERNING AUTHORITIES.

FOUNDATIONS

REFER TO THE SPECIFICATIONS AND GEOTECHNICAL REPORT REQUIREMENTS FOR EXCAVATION AND PREPARATION OF THE FOUNDATIONS AND THE SLAB–ON–GRADE SUBGRADE, INCLUDING COMPACTION PROCEDURES.

THE CONTRACTOR SHALL PROTECT CONCRETE BEARING ELEVATIONS FROM FROST AT ALL TIMES. FROZEN SOIL BELOW CONCRETE BEARING ELEVATIONS MUST BE REMOVED.

UTILITY LINES SHALL NOT BE PLACED THROUGH OR BELOW FOUNDATIONS WITHOUT THE STRUCTURAL ENGINEERS APPROVAL.

CONCRETE FOR THE FOUNDATIONS SHALL BE POURED THE SAME DAY SUBGRADE APPROVAL IS GIVEN BY THE GEOTECHNICAL ENGINEER.

PROOFROLLING OPERATIONS SHALL BE PERFORMED UNDER THE DIRECTION OF A QUALIFIED GEOTECHNICAL ENGINEER. ANY SOFT SPOTS OR AREAS DETERMINED BY THE GEOTECHNICAL ENGINEER SHALL BE IMPROVED OR REPLACED AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

NEW FOUNDATIONS ADJACENT TO EXISTING FOUNDATIONS SHALL BE CONSTRUCTED IN A MANNER NOT TO DISTURB OR UNDERMINE THE EXISTING FOUNDATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY BRACING AND/OR SHORING REQUIRED TO CONSTRUCT THE NEW FOUNDATIONS.

GENERAL CONTRACTOR SHALL HIRE A QUALIFIED AGGREGATE PIER DESIGNER AND INSTALLER. AGGREGATE PIERS SHALL BE DESIGNED FOR THE LOADS AS DESCRIBED ON THE DRAWINGS. THE SOILS SUPPORTING THE SLAB ON GRADE SHALL BE IMPROVED TO PROVIDE A MIN. OF 3,000 PSF ALLOWABLE BEARING CAPACITY. AGGREGATE PIERS SHALL BE DESIGNED BY A QUALIFIED GEOTECHNICAL OR STRUCTURAL ENGINEER, LICENSED IN THE STATE OF ILLINOIS.

STRUCTURAL FILL UNDERNEATH FOOTINGS & SLAB–ON–GRADE

APPROVED MATERIAL SHALL BE PLACED IN LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS, MOISTURE CONDITIONED AS REQUIRED TO ACHIEVE COMPACTION TO A MINIMUM OF 95% MODIFIED PROCTOR UNDER FOOTINGS. COMPACTION OF FILL SOILS USED FOR SLAB–ON–GRADE SUBGRADE CONSTRUCTION SHALL BE SIMILARLY COMPACTED TO 95% OF STANDARD PROCTOR.

SUPERVISION OF THE PLACEMENT OF COMPACTED STRUCTURAL FILL SHALL BE BY A QUALIFIED GEOTECHNICAL ENGINEER.

BACKFILL

ALL BACKFILL SHALL BE ACCOMPLISHED USING MATERIALS CONSISTING OF BANK RUN GRAVEL, CRUSHED STONE AND/OR MATERIAL APPROVED BY THE GEOTECHNICAL ENGINEER WITH OPTIMUM MOISTURE CONTENT TO COMPACTING AND SHALL BE FREE FROM DEBRIS.

BACKFILL SHALL BE PLACED EQUALLY ON BOTH SIDES OF FOUNDATION WALLS AND GRADE BEAMS. NO BACKFILL SHALL BE PLACED AGAINST BASEMENT WALLS UNTIL THE UPPER BRACING FLOORS ARE IN PLACE OR UNTIL ADEQUATE BRACING IS INSTALLED.

CONCRETE

THE COMPRESSIVE STRENGTH OF GROUT USED TO CONSTRUCT LEVEL COLUMN BEARING PLATES SHALL MATCH THE COMPRESSIVE STRENGTH OF THE SUPPORTING CONCRETE.

CONCRETE CONTAINING CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE PERMITTED IN ANY CONCRETE.

CONCRETE SHALL BE ADEQUATELY CONSOLIDATED DURING PLACEMENT. NEITHER OVERCONSOLIDATING NOR TRANSPORTING CONCRETE WITH VIBRATORS SHALL BE PERMITTED.

PREPARE AND TEST CONCRETE CYLINDERS AS OUTLINED IN CHAPTER 16 OF ACI–301 OR IN ACCORDANCE WITH ARCHITECTURAL SPECIFICATIONS.

COLD WEATHER CONCRETE SHALL BE IN ACCORDANCE WITH ACI–306. HOT WEATHER CONCRETE SHALL BE IN ACCORDANCE WITH ACI–305.

ALL REINFORCING BARS AND ACCESSORIES SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI STANDARDS 315 AND 315R.

WELDING OF REINFORCING BARS SHALL NOT BE PERMITTED UNLESS SHOWN ON THE DRAWINGS. WHEN WELDING IS SHOWN, WELDS MUST COMPLY WITH "RECOMMENDED PRACTICE FOR WELDING REINFORCEMENT STEEL, METAL INSERTS AND CONNECTIONS IN REINFORCED CONCRETE CONSTRUCTION", AWS D12.1. IN NO CASE SHALL WELDING BE PERMITTED AT BAR BENDS, NOR TACK WELDING OF CROSSING BARS.

WALL POURS SHALL BE LIMITED TO 100 FEET. THE END OF POURS SHALL BE BULKHEADED WITH A SHEAR KEY AND DOWELS TO ENGAGE THE ADJACENT POUR. EXPOSED WALLS SHALL HAVE UNIFORM CONTROL JOINTS NOT TO EXCEED 20 FEET ON CENTER.

SLABS–ON–GRADE SHALL HAVE CONTROL JOINTS IN AS NOTED ON DWGS, COORDINATE LOCATIONS WITH ARCHITECTURAL DRAWINGS & SPECIFICATIONS.

VAPOR BARRIER SHALL BE A MINIMUM OF 10 MIL. VAPOR BARRIER SHALL BE INSTALLED IN MAXIMUM SHEET SIZE AND A MINIMUM OF JOINTS. JOINTS SHALL BE LAPPED A MINIMUM OF 6" AND TAPED.

LOCATION OF VAPOR BARRIER BELOW SLAB SHALL BE BASED ON OWNERS USE AND SELECTED ARCHITECTURAL FINISH TREATMENTS. CONTRACTOR SHALL REFER TO THE LATEST EDITION OF ACI 302 FOR RECOMMENDED LOCATION. CONTRACTOR SHALL ALSO CONSULT PROJECT GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION. CARE SHALL BE TAKEN TO PREVENT RUPTURE OF VAPOR BARRIER.

GENERAL CONTRACTOR SHALL COORDINATE AND CHECK WITH TRADE CONTRACTORS, ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR OPENINGS, SLEEVES, ANCHORS, HANGERS, INSERTS, SLAB DEPRESSIONS AND OTHER ITEMS RELATED TO CONCRETE WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY BEFORE PERMITTING CONCRETE PLACEMENT. CONCRETE SHALL BE PITCHED AS SHOWN OR REQUIRED.

ALUMINUM, OR MATERIALS CONTAINING ALUMINUM, SHALL NOT BE PERMITTED IN THE CONCRETE UNLESS AN ADEQUATE COATING TO PREVENT ALUMINUM–CONCRETE REACTION IS PROVIDED. THIS INCLUDES PUMPING CONCRETE THROUGH ALUMINUM PIPE.

STRUCTURAL STEEL

STRUCTURAL STEEL SHALL COMPLY WITH THE REFERENCED CODES AND STANDARDS NOTED ABOVE.

HORIZONTAL ELEMENTS SHALL BE DETAILED, MANUFACTURED AND INSTALLED WITH THE NATURAL CAMBER UP.

TYPICAL BEAM CONNECTIONS SHALL BE DESIGNED FOR 50% OF THE 'ALLOWABLE UNIFORM LOAD IN KIPS' AS FOUND IN THE MANUAL OF STEEL CONSTRUCTION, UNLESS NOTED OTHERWISE ON DRAWINGS. THE STEEL CONTRACTOR HAS THE OPTION OF BOLTED OR WELDED CONNECTIONS, UNLESS NOTED OTHERWISE ON THE DRAWINGS.

TYPICAL MOMENT CONNECTIONS SHALL BE DESIGNED TO DEVELOP THE FULL MOMENT CAPACITY OF THE BEAM.

GOVERNMENT ANCHORS SHALL BE PROVIDED TO ANCHOR STEEL TO MASONRY WHEN ANCHOR BOLTS, BEARING PLATES OR OTHER ANCHORAGE IS NOT SPECIFIED.

STEEL BEAMS SHALL BEAR A MINIMUM OF 8" ON CONCRETE OR MASONRY, UNLESS NOTED OTHERWISE IN DRAWINGS. MINIMUM ANCHORAGE TO CONCRETE OR MASONRY SHALL BE (2) ½" DIAMETER HOOKED ANCHOR BOLTS OR HEADED STUDS WITH 4" EMBEDMENT.

STRUCTURAL STEEL SHALL RECEIVE ONE COAT OF APPROVED SHOP PAINT UNLESS NOTED OTHERWISE IN DRAWINGS OR ARCHITECTURAL SPECIFICATIONS. REFER TO ARCHITECTURAL SPECIFICATIONS FOR ADDITIONAL PAINTING REQUIREMENTS FOR EXPOSED STRUCTURAL STEEL.

THE COMPLETED BUILDINGS LATERAL LOAD RESISTANCE AND STABILITY IS PROVIDED BY THE MASONRY WALLS AND MOMENT FRAMES NOTED ON THE DRAWINGS. THE FLOOR AND ROOF SYSTEMS ARE HORIZONTAL DIAPHRAGMS TO TRANSFER THE HORIZONTAL FORCES TO THE RESISTING SYSTEM. THE SHEAR WALLS AND STEEL MOMENT FRAMES CARRY THE LATERAL LOADS TO THE FOUNDATIONS.

METAL DECK

SPECIFIED METAL DECK SHALL BE CONTINUOUS OVER 3 OR MORE SUPPORTS.

THE METAL ROOF DECK IS A HORIZONTAL DIAPHRAGM FOR THE LATERAL LOAD RESISTING SYSTEM. THE DIAPHRAGM SHALL BE CAPABLE OF TRANSFERRING A SHEAR FORCE OF 300 PLF MIN. TO THE SUPPORTING MEMBERS. THE MINIMUM DECK ATTACHMENT SHALL BE ⅝" PUDDLE WELDS AT 12" O.C. IN THE FIELD, AT 6" O.C. ALONG THE PERIMETER AND AT INTERIOR LATERAL RESISTING SYSTEMS (6'–0" OR (2) PANEL WIDTHS FROM PERIMETER OR LATERAL RESISTING ELEMENTS). SIDE LAP CONNECTIONS SHALL BE #10 TEK SCREWS TO PROVIDE THE DIAPHRAGM SHEAR FORCE NOTED ABOVE. A MAXIMUM 36" SPACING BETWEEN SIDE LAP CONNECTIONS IS REQUIRED WHEN THE DECK SUPPORT SPACING IS GREATER THAN 5'–0".

METAL FLOOR DECK SHALL BE WELDED TO ALL SUPPORTS AT 12" O.C. WHEN THE DECK GAUGE IS GREATER THAN 22, THEN WELDING WASHERS SHALL BE USED. A MAXIMUM 36" SPACING BETWEEN SIDE LAP CONNECTIONS IS REQUIRED WHEN THE DECK SUPPORT SPACING IS GREATER THAN 5'–0".

METAL DECK SHALL NOT BE USED TO SUPPORT CONDUIT, PIPING, FIXTURES, ETC.

METAL DECK WITH EXTERIOR EXPOSURE SHALL BE GALVANIZED.

NO METAL ROOF DECK OPENINGS SHALL BE CUT UNLESS AUTHORIZED AND/OR DIRECTED BY THE ARCHITECT. THE FOLLOWING GUIDELINES SHALL APPLY WHEN OPENINGS ARE REQUIRED:

- 6" OR LESS, ONE RIB REMOVED: NO REINFORCING REQUIRED
- 6" TO 8" OPENING, ONE RIB REMOVED: 18 GA. REINFORCING PLATE SCREWED TO ADJACENT RIBS
- 8" TO 12" OPENING, TWO RIBS REMOVED: 16 GA. REINFORCING PLATE SCREWED TO ADJACENT RIBS
- OPENING GREATER THAN 12" SHALL HAVE AUXILIARY STEEL FRAMING AS NOTED IN THE DETAIL DRAWINGS
- WHEN ROOF OPENINGS ARE LOCATED NEAR THE ENDS OF METAL DECK, PROVIDE 1½" DEEP REINFORCING CHANNELS (FLUSH WITH TOP OF DECK), SPANNING BETWEEN ROOF DECK SUPPORTS

PROVIDE STANDARD SUMP PANS AT ALL ROOF DRAINS, REFER TO ARCHITECTURAL SPECIFICATIONS FOR MORE INFORMATION.

MASONRY

THE OWNER SHALL RECEIVE AFFIDAVITS FROM AN APPROVED TESTING LABORATORY CERTIFYING ALL MASONRY UNITS CONFORM TO THEIR RESPECTIVE ASTM REQUIREMENTS PRIOR TO THEIR DELIVERY TO THE JOB SITE.

GROUT ALL CAVITIES AND/OR BOND BEAMS CONTAINING REINFORCEMENT SOLID. CAVITIES SHALL BE GROUTED IN LIFTS NOT EXCEEDING 5'–0". DO NOT DISPLACE THE REINFORCEMENT WHILE PLACING THE GROUT.

THE REINFORCEMENT PLACEMENT SHALL BE CHECKED PRIOR TO GROUTING THE FIRST LIFT OF WALL ABOVE THE SLAB AND PRIOR TO GROUTING THE TOP LIFT OF THE WALL. AT EACH REINFORCEMENT CHECK, (3) THREE GROUT AND MORTAR SPECIMENS SHALL BE TAKEN FOR EACH 500 SQUARE FEET OF MASONRY BEING ERECTED. TEST SPECIMENS AT SEVEN (7) DAYS, AT TWENTY–EIGHT (28) DAYS, AND HOLD THE THIRD SPECIMEN FOR FURTHER TESTING, AS REQUIRED.

SPLICED REINFORCEMENT SHALL BE LAPPED THE GREATER OF 24 OR 48 BAR DIAMETERS.

PROVIDE HORIZONTAL REINFORCING, MINIMUM 9 GAGE WIRE DIAMETER, AT EVERY SECOND BLOCK COURSE, 16" O.C. VERTICALLY IN ALL WALLS. INSTALL JOINT REINFORCEMENT IN THE FIRST AND SECOND BED JOINTS, EIGHT INCHES (8") O.C. IMMEDIATELY ABOVE AND BELOW MASONRY OPENINGS. THE JOINT REINFORCEMENT SHALL BE EXTENDED A MINIMUM OF 24" BEYOND JAMBS.

VERTICAL REINFORCEMENT SHALL BE AS NOTED ON THE PLAN. PROVIDE TWO (2) BARS, ONE (1) EACH FACE, SAME SIZE AS VERTICAL REINFORCEMENT, EACH SIDE OF OPENING AND AT BUILDING CORNERS, FULL HEIGHT. PROVIDE TWO (2) BARS UNDER ALL GRILLAGE BEAMS AND BEAM BEARING PLATES, UNLESS NOTE OTHERWISE.

CONTROL JOINTS ARE REQUIRED IN ALL WYTHES OF MASONRY AT A MAXIMUM HORIZONTAL SPACING OF 40'–0" O.C. REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF CONTROL JOINTS. NO PLATES SHALL BE LOCATED WITHIN TWO (2) FEET OF BEAM BEARING. NO RIGID ELEMENTS SHALL BE INSTALLED ACROSS JOINT THAT WILL HINDER THE PERFORMANCE OF THE JOINT.

BOND BEAMS SHALL BE LAPPED A MINIMUM OF 4'–0" IN STEPPED BOND BEAM COURSES.

A 1½" FLEXIBLE JOINT SHALL BE PROVIDED ON ALL SIDES OF STEEL BEAMS AND/OR STEEL JOISTS PENETRATING NON–BEARING MASONRY WALLS.

CALCIUM CHLORIDE AND/OR ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED IN MORTAR OR GROUT MIXES. NO ANTI–FREEZE CHEMICALS SHALL BE USED TO LOWER THE FREEZING POINT OF EITHER MORTAR OR GROUT.

MASONRY SHALL NOT BE LAID IN HOT WEATHER OR COLD WEATHER UNLESS THE RECOMMENDATIONS IN ACI 530.1 ARE STRICTLY ADHERED TO.

MASONRY WALLS SHALL BE BRACED TO WITHSTAND THE CODE SPECIFIED HORIZONTAL LOADS DURING THEIR ERECTION, AND UNTIL THEIR DESIGN SUPPORTS ARE IN PLACE. BRACING SYSTEMS SHALL BE DESIGNED BY A QUALIFIED STRUCTURAL ENGINEER. SHORES AND/OR FORMS SHALL NOT BE REMOVED,

NOR CONCENTRATED LOADS APPLIED, UNTIL MASONRY HAS SET ADEQUATELY ENOUGH TO CARRY ITS OWN WEIGHT AND ANY APPLIED LOADS.

MASONRY WALLS THAT ARE NON–LOADBEARING SHALL BE ANCHORED TO THE STRUCTURE ABOVE PER THE STRUCTURAL DETAILS. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE LOCATION AND EXTENT OF ALL MASONRY WALLS.

QUALITY ASSURANCE AND INSPECTION OF WORK, AS DEFINED IN THE CODES AND STANDARDS ABOVE, THE ARCHITECTURAL SPECIFICATIONS AND LOCAL AUTHORITIES SHALL BE STRICTLY ADHERED TO.

LINTELS SHALL BEAR ON 1'–4" x 1'–4" SOLID, OR GROUTED SOLID MASONRY EACH END, UNLESS NOTED OTHERWISE. PROVIDE BEARING PLATES OR MASONRY ANCHORS, AS NOTED ON THE DRAWINGS. STEEL LINTELS TO BE WELDED TO BEARING PLATES.

EMBEDDED STEEL SHALL HAVE ADJUSTABLE MASONRY ANCHORS SPACED NOT GREATER THAN 16" VERTICALLY, 32" HORIZONTALLY, UNLESS NOTED OTHERWISE.

SHOP DRAWING SUBMITTAL

SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR, PRIOR TO THE SUBMITTAL TO THE ARCHITECT/ENGINEER. SHOP DRAWINGS/CALCULATIONS SHALL BE SEALED BY A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF ILLINOIS

SHOP DRAWINGS/CALCULATIONS/SUBMITTALS PROVIDED TO THE ARCHITECT/ENGINEER SHALL INCLUDE, BUT NOT BE LIMITED TO, SIZE, SPACING, CONNECTIONS, BEARING STIFFENERS, WEB STIFFENERS, BLOCKING, PLACEMENT, ETC. FOR THE FOLLOWING:

- STEEL REINFORCEMENT, PLACEMENT OF CONCRETE AND MASONRY WORK
- CONCRETE MIX DESIGN
- METAL ROOF DECK
- STEEL FRAMING, CONNECTION DESIGN
- PRE–ENGINEERED/FABRICATED BUILDING COMPONENTS
- AGGREGATE PIER GROUND IMPROVEMENT DESIGN

SPECIAL INSPECTIONS

ALL TESTS AND INSPECTIONS SHALL BE PERFORMED BY AN INDEPENDENT TESTING AND INSPECTION THE SPECIAL INSPECTOR FROM THIS TESTING AGENCY SHALL OBSERVE THE WORK FOR THE CONFORMANCE TO THE DESIGN DRAWINGS AND SPECIFICATIONS.

THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OR THE ARCHITECT OF RECORD, AND ALL OTHER DESIGNATED INDIVIDUALS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION. THEN, IF NOT CORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL.

THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS, SPECIFICATIONS, SOILS REPORT, AND APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE.

THE FOLLOWING ITEMS MARKED 'X' REQUIRE SPECIAL INSPECTIONS: (REFER TO IBC 2015 CHAPTER 17 FOR ADDITIONAL INFORMATION) SEE SHEET S6.

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

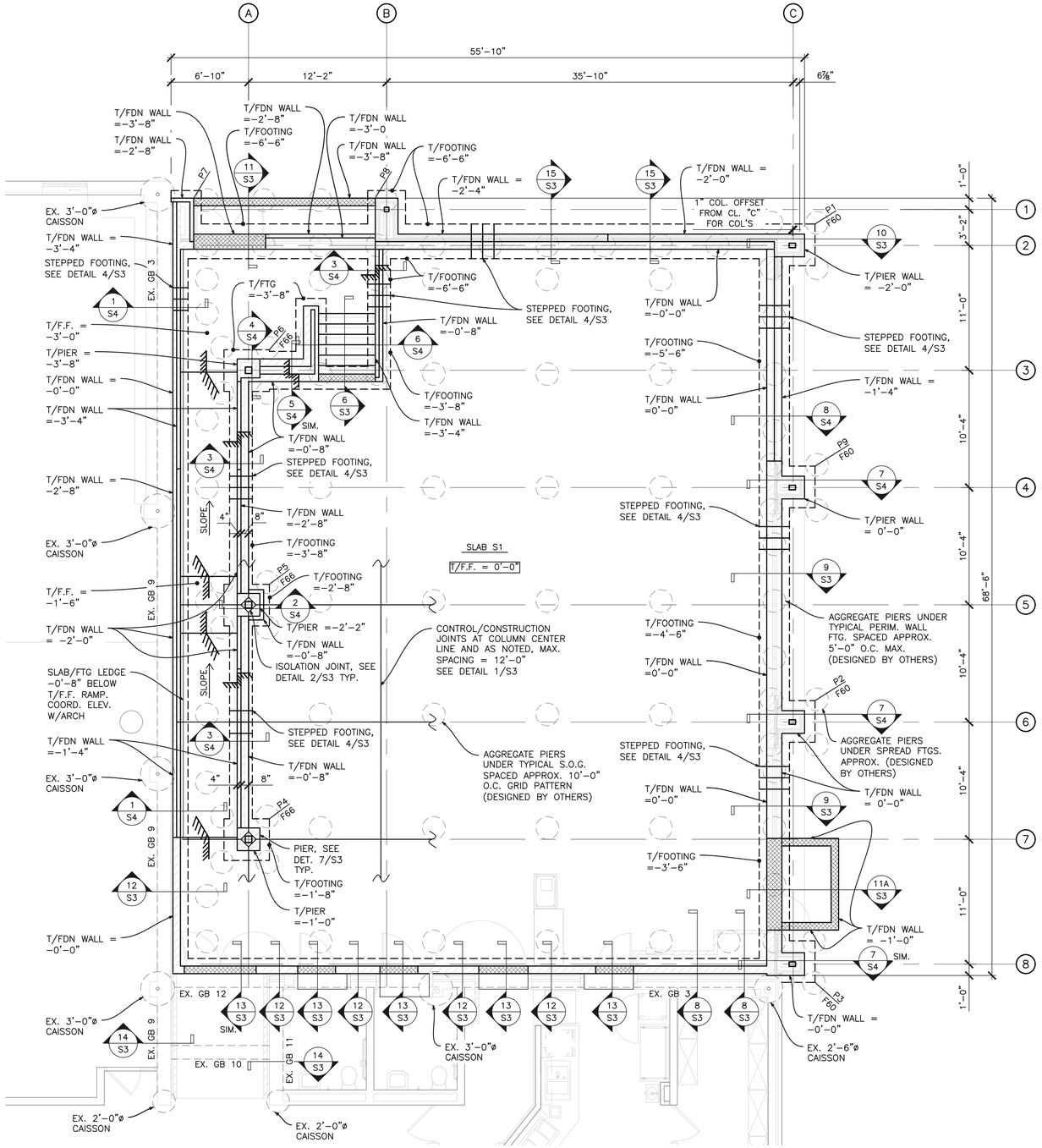
RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
STRUCTURAL NOTES

PROJECT INFORMATION

Date	APRIL 3, 2017
Rev. Date	
RLJA Proj	2015-052

SHEET NUMBER
S0
OF
7



1 FOUNDATION PLAN

Scale: 3/16"=1'-0"

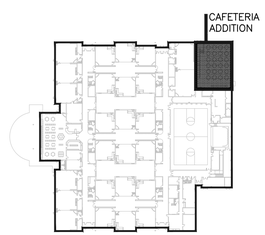
NOTES:

1. FINISHED FLOOR ELEVATION = 0'-0", SEE CIVIL DWGS. FOR USGS DATUM
2. T/FOOTING (EXTERIOR) ELEVATION = SEE PLAN
3. T/FOOTING (INTERIOR) ELEVATION = SEE PLANS AND COORD. ELEV. W/ARCH DWGS.
4. T/FOUNDATION WALL ELEVATION = -0'-0" BELOW FINISHED FLOOR, U.N.O., COORD. W/ARCH DWGS.
5. T/DEPRESSED FOUNDATION WALL ELEVATION = -0'-8", U.N.O., COORD. W/ARCH DWGS.
6. SLAB S1 =6" CONCRETE SLAB W/ 6x6x-W2.1xW2.1 WWR ON 10 MIL VAPOR BARRIER ON 6" COMPACTED BASE.
7. FOUNDATION WALL THICKNESS, SEE SECTIONS ON SHEET S3 & S4
8. FOUNDATIONS: F#, SEE SCHEDULE ON SHEET S6
9. PIERS: P#, SEE DETAIL 2/S6 FOR ADDITIONAL INFORMATION.
10. AGGREGATE PIERS TO BE DESIGNED BY OTHERS, SOIL BEARING CAPACITY FOR FOOTING DESIGNS BASED ON 3,000 PSF MIN. (TO BE DESIGNED AND COORDINATED WITH AGGREGATE PIER CONTRACTOR).

Foundation Load Takedown for Aggregate Pier Designer/Installer [1, 3 & 4]

Column / Plan Location	Dead Load		Live/Snow Load		Wind Load (+/-)		Seismic Load (+/-)	
	Vert. Rxn	Moment Rxn	Vert. Rxn	Moment Rxn	Vert. Rxn	Moment Rxn [2]	Vert. Rxn	Moment Rxn [2]
A/3	15.5 kips	2 k-ft	23 kips	2.5 k-ft	3 kips	27 k-ft	2 kips	21 k-ft
A/5	11 kips	1 k-ft	16 kips	1 k-ft	1 kips	33 k-ft	1 kips	26 k-ft
A/7	14.5 kips	1.5 k-ft	22 kips	2 k-ft	3 kips	39.5 k-ft	2 kips	31 k-ft
C/2	6.5 kips	2 k-ft	7.5 kips	2 k-ft	2 kips	19 k-ft	2 kips	15 k-ft
C/4	16 kips	1 k-ft	18.5 kips	1 k-ft	1 kips	21 k-ft	1 kips	16.5 k-ft
C/6	16 kips	1 k-ft	18.5 kips	1 k-ft	1 kips	23 k-ft	1 kips	18 k-ft
C/8	6.5 kips	2 k-ft	7.5 kips	2 k-ft	2 kips	24.5 k-ft	2 kips	19 k-ft
B/1	2 kips	0 k-ft	3 kips	0 k-ft	0 kips	0 k-ft	0 kips	0 k-ft
Wall Load Along 2 Line	2 klf	-	0 klf	-	0 klf	190 k-ft	0 klf	205 k-ft
Wall Load Along 8 Line	1 klf	-	0 klf	-	0 klf	-	0 klf	-
Wall Load West of A Line	1 klf	-	0 klf	-	0 klf	-	0 klf	-
Wall Load Along C Line	1 klf	-	0 klf	-	0 klf	-	0 klf	-

Notes:
1. Loads are provided as service (unfactored) loads.
2. Moment Reactions at wall along 2 line are overturning moment at shear wall location (32' long).
3. Aggregate piers supporting slab on grade shall be designed for a uniform 100 psf live load.
4. Aggregate Piers shall be designed for the above loading conditions.



KEY PLAN

Scale: N.T.S

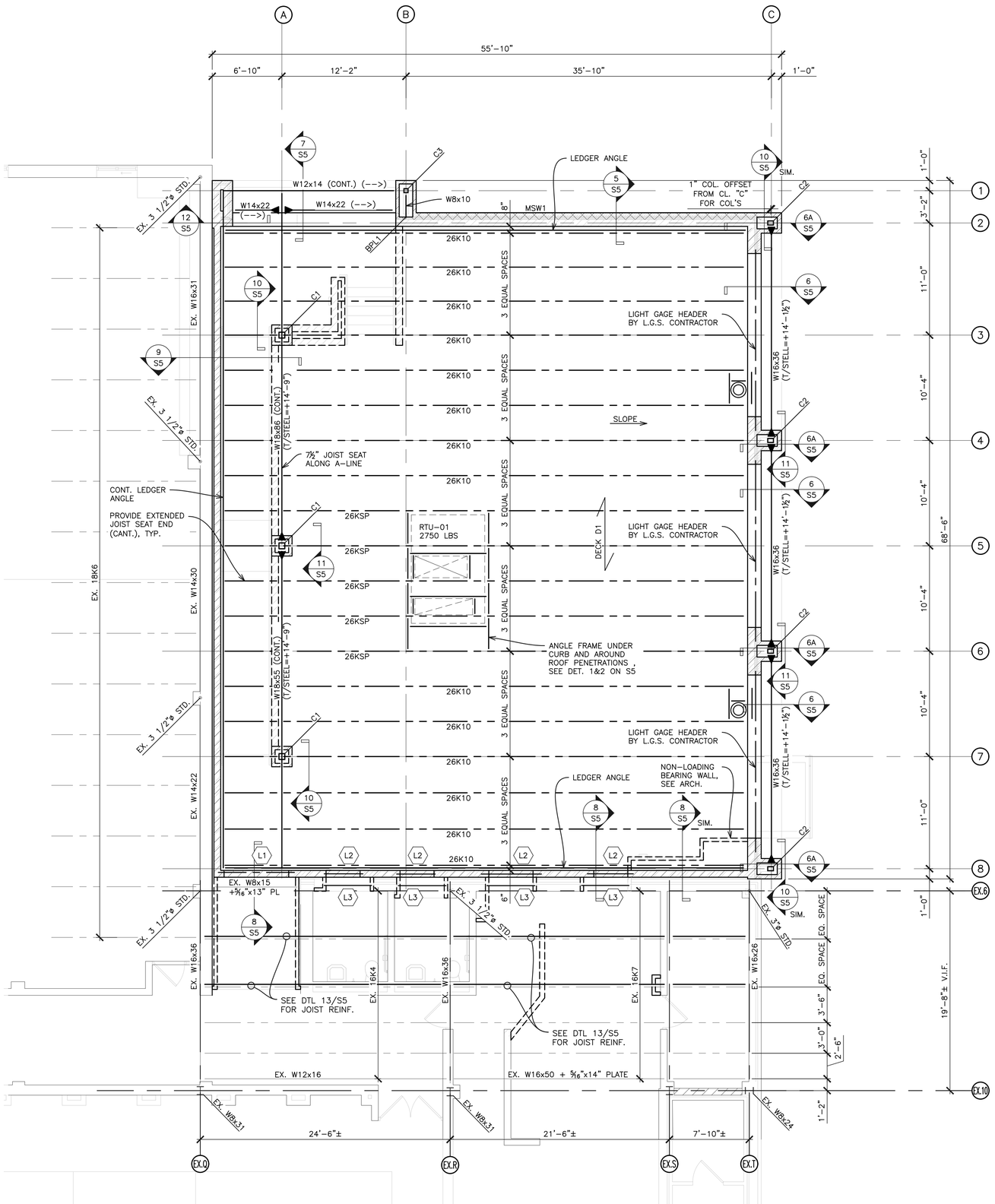
CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
FOUNDATION PLAN

PROJECT INFORMATION
Date: APRIL 5, 2017
Rev. Date:
RLJA Proj: 2015-052

SHEET NUMBER
S1
OF
7

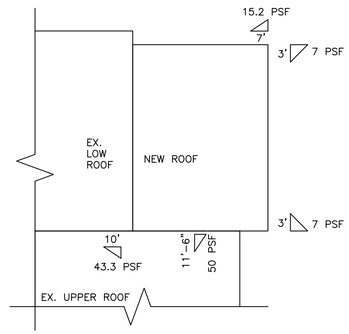


1 ROOF FRAMING PLAN

Scale: 3/16"=1'-0"

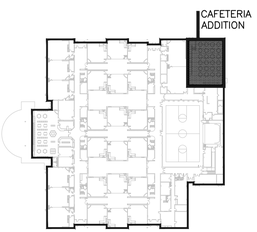
NOTES:

1. TOP OF STEEL BEAM ELEVATION VARIES, SEE PLAN
2. VERIFY ALL ROOF OPENING SIZES AND LOCATIONS WITH THE ARCHITECTURAL & MECHANICAL DRAWINGS
3. DECK D1 = 1½" TYPE B, 22GA METAL DECK.
4. MASONRY WALL REINFORCEMENTS:
   4.1. 8" CMU + 4" GAP + 4" BRICK: PROVIDE (1) #5 @ 32" O.C. IN CMU.
   4.2. 8" CMU (NO FACE BRICK): PROVIDE #5 @ 32" O.C.
5. LINTELS, SEE LINTEL SCHEDULE ON S6 (L#)
6. DESIGNATES MOMENT CONNECTION, SEE DETS 10, 11 & 12 ON S5.
7. BEARING PLATES: BPLX, SEE SCHEDULE ON S6.
8. COLUMNS: CX, SEE SCHEDULE ON S6
9. MSW1 = MASONRY SHEAR WALL. 2 WALLS @ 16'-0" (MIN.) LONG, 8" THICK W/#5 BAR @ 32" O.C. VERT. & BOND BEAM W/(1) #5 BAR @ 48" O.C.
10. STEEL BAR JOIST DESIGNER NOTE: COORDINATE FINAL LOCATIONS AND WEIGHTS OF HVAC EQUIPMENT WITH GENERAL CONTRACTOR/MECHANICAL CONTRACTOR. JOISTS TAGGED SPECIAL (SP) SHALL BE DESIGNED FOR AN ADDITIONAL CONCENTRATED LOAD EQUAL TO 30% OF EQUIPMENT WEIGHT AT EACH CORNER. REINFORCE JOISTS PER DETAIL 1/S5 & 2/S5.



2 SNOW DRIFT DIAGRAM

Scale: NO SCALE



KEY PLAN

Scale: N.T.S

CAFETERIA ADDITION AND REMODELING TO

LEWIS LEMON ELEMENTARY SCHOOL

ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION

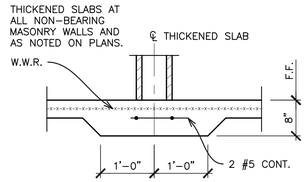
ROOF FRAMING PLAN

PROJECT INFORMATION

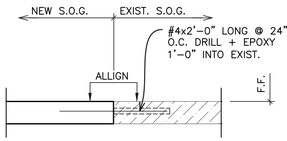
Date	APRIL 3, 2017
Rev. Date	
RLJA Proj	2015-052

SHEET NUMBER

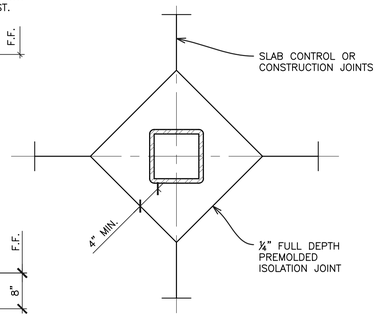
S2 OF 7



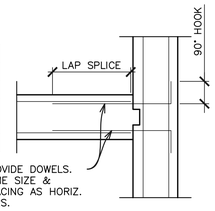
THICKENED SLAB

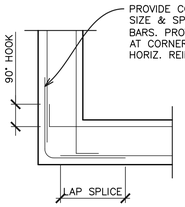


NEW TO EXISTING SLAB

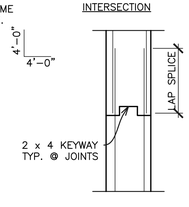


SPLICE LAP/HOOK DIMENSIONS					
BAR	LAP	HOOK	BAR	LAP	HOOK
#4	23"	8"	#8	57"	16"
#5	29"	10"	#9	64"	19"
#6	34"	12"	#10	72"	22"
#7	50"	14"	#11	79"	24"



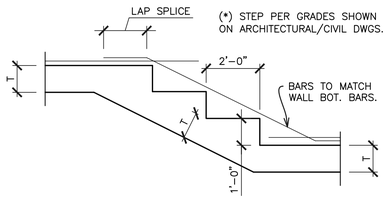


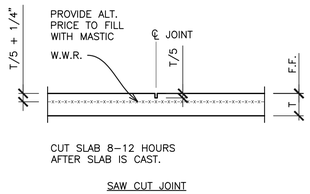
CORNER



CONSTRUCTION JOINT

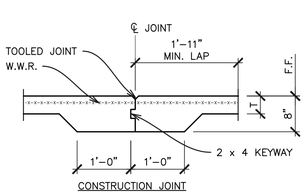
CONTRACTORS NOTE:
COORDINATE LOCATION OF STEPPED FOOTINGS WITH ARCHITECTURAL/CIVIL DRAWINGS, AND EXISTING SOIL CONDITIONS. MAINTAIN 3'-6" MIN. FROST DEPTH.





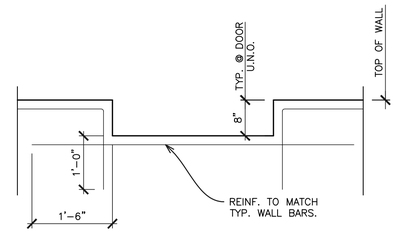
CUT SLAB 8-12 HOURS AFTER SLAB IS CAST.

SAW CUT JOINT



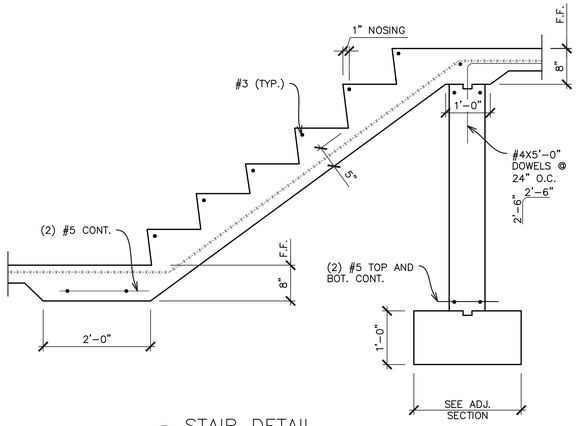
CONSTRUCTION JOINT

WHEN CONSTRUCTION TYPE CONTROL JOINTS ARE USED, SLABS MUST BE CAST IN A STRIP PATTERN ALLOWING 24 HOURS BETWEEN ADJACENT POURS.



1 SLAB ON GRADE DETAILS

Scale: N.T.S.



2 ISOLATION JOINT DETAIL

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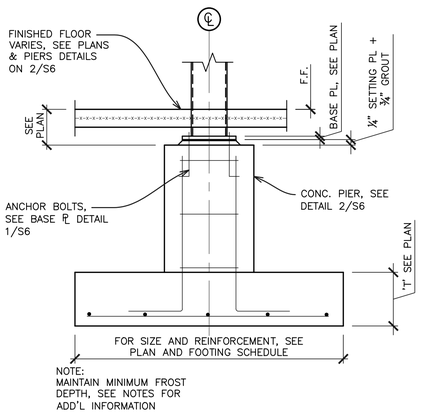
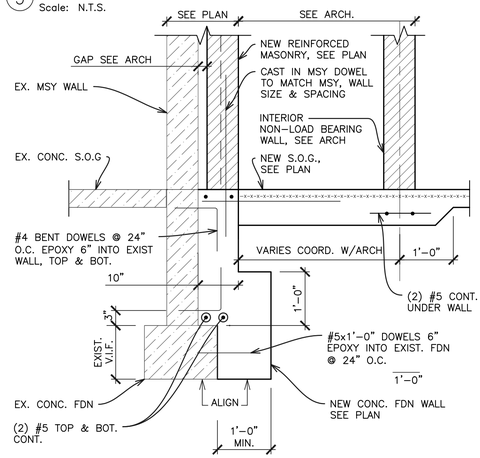


NOTE:
MAINTAIN MINIMUM FROST DEPTH, SEE NOTES FOR ADD'L INFORMATION

3 CONCRETE WALL DETAILS

Scale: N.T.S.



4 STEPPED FOOTING DETAIL

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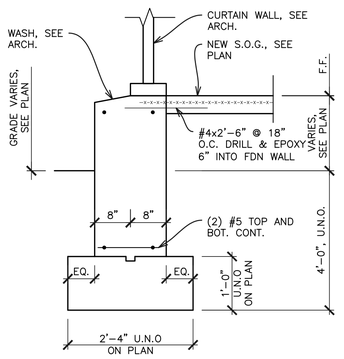

5 DEPRESSED WALL DETAIL

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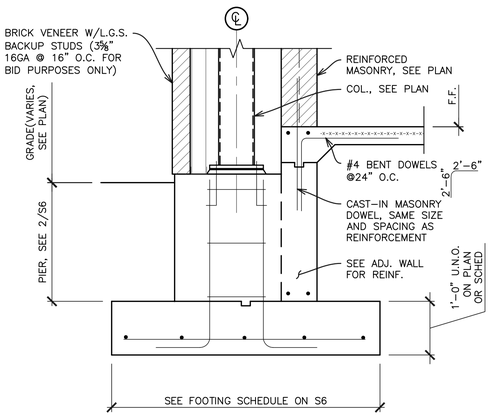

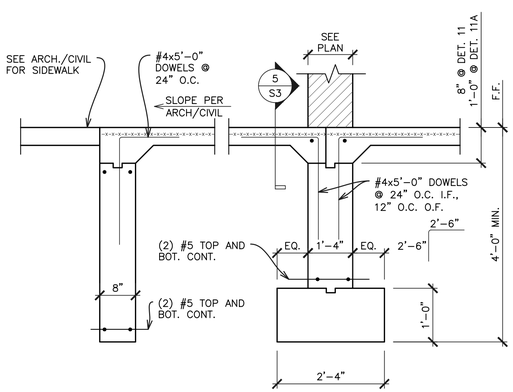

6 STAIR DETAIL

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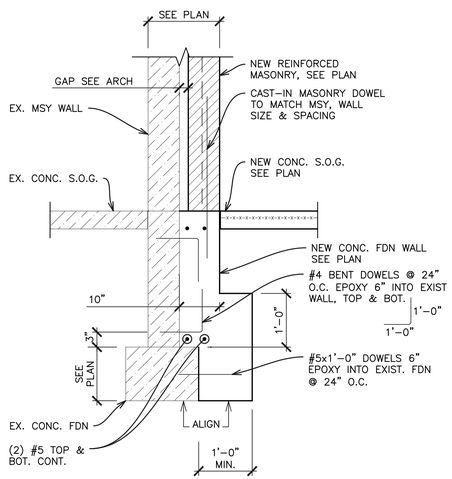

7 FOOTING DETAIL

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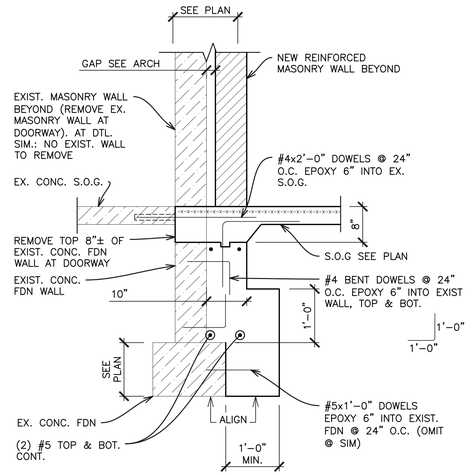

8 SECTION

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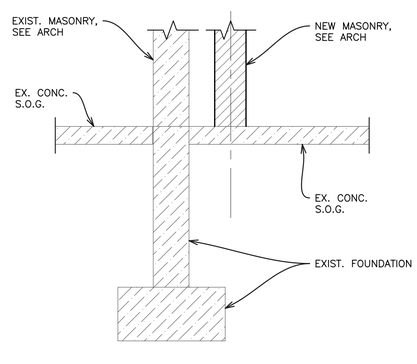

9 SECTION

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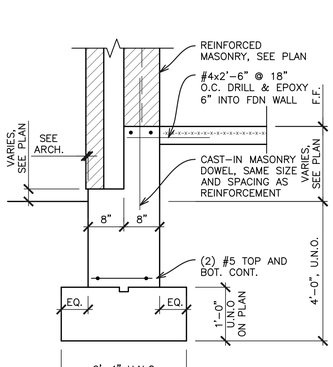


10 SECTION

Scale: N.T.S.

11 11A SECTION

Scale: N.T.S.

12 SECTION

Scale: N.T.S.

13 SECTION

Scale: N.T.S.

14 SECTION

Scale: N.T.S.

15 SECTION

Scale: N.T.S.

CAFETERIA ADDITION AND REMODELING TO

LEWIS LEMON ELEMENTARY SCHOOL

ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

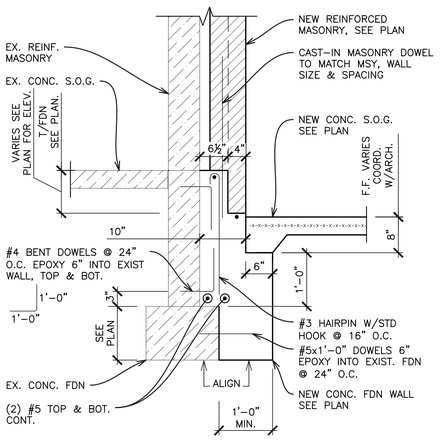
SHEET IDENTIFICATION

FOUNDATION DETAILS

PROJECT INFORMATION			
Date	APRIL 3, 2017		
Rev. Date			
RLJA Proj	2015-052		

SHEET NUMBER

S3
OF
7



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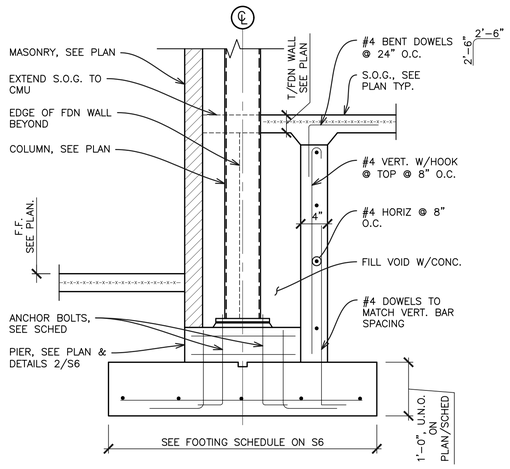

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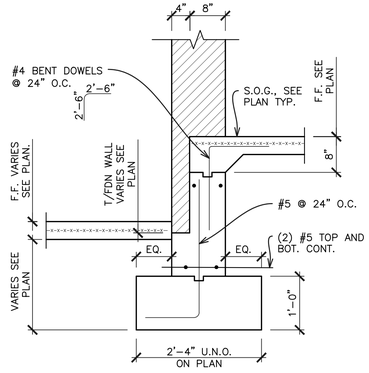

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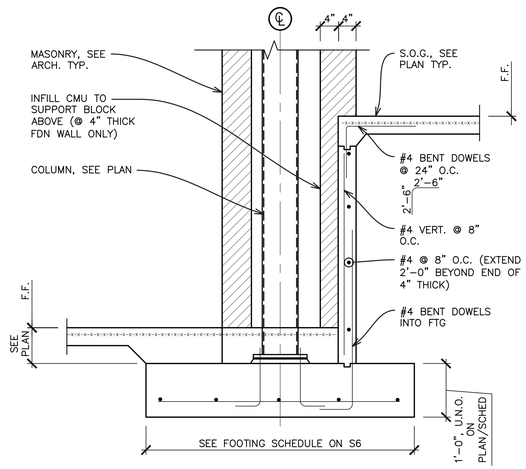

4 SECTION
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5 SECTION
Scale: N.T.S.

6 SECTION
Scale: N.T.S.

7 SECTION
Scale: N.T.S.

8 SECTION
Scale: N.T.S.

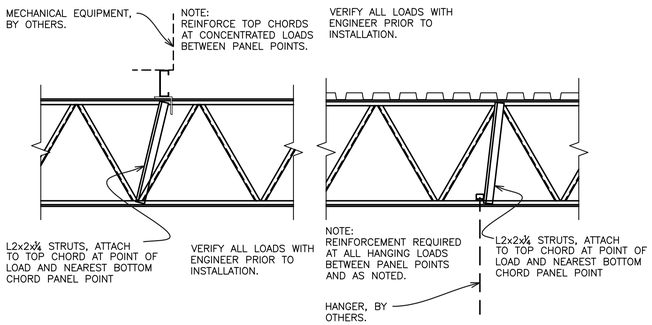
CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
FOUNDATION DETAILS

PROJECT INFORMATION
Date APRIL 3, 2017
Rev. Date
RLJA Proj 2015-052

SHEET NUMBER
S4
OF
7



1 JOIST REINFORCING DETAILS
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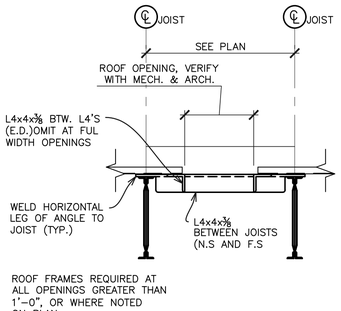

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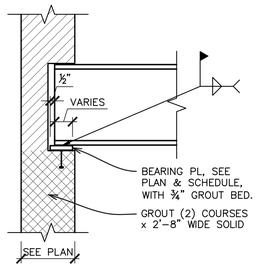

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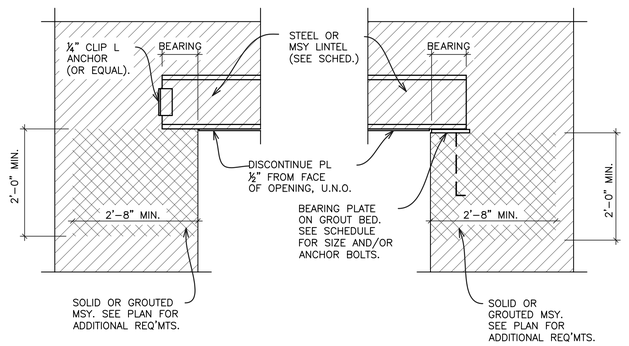

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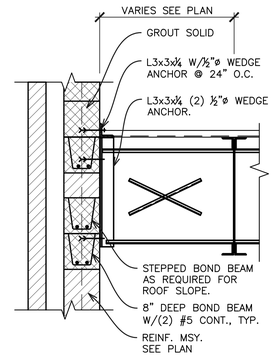

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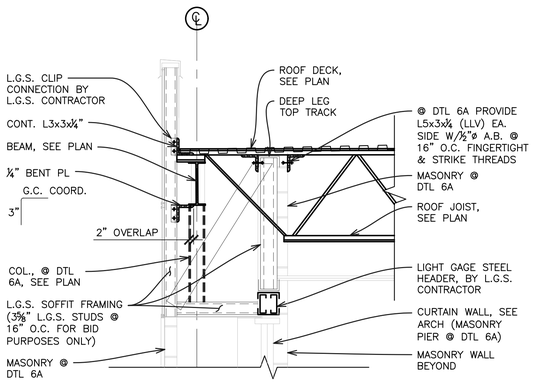

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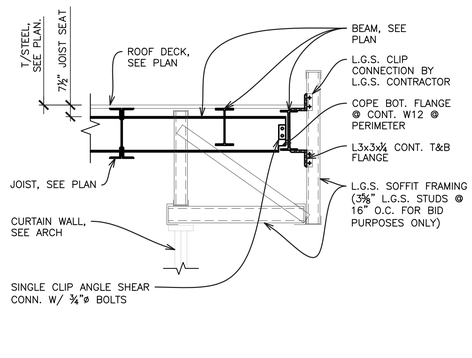

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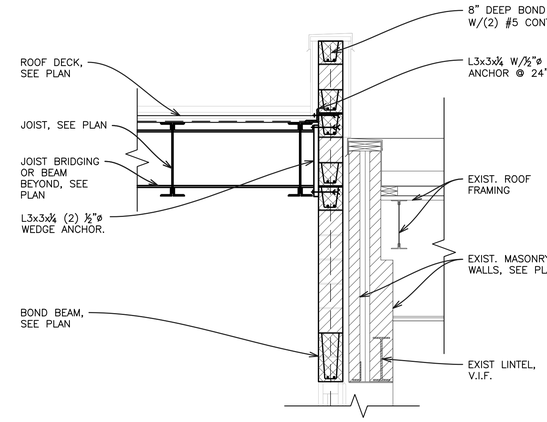

8 SECTION
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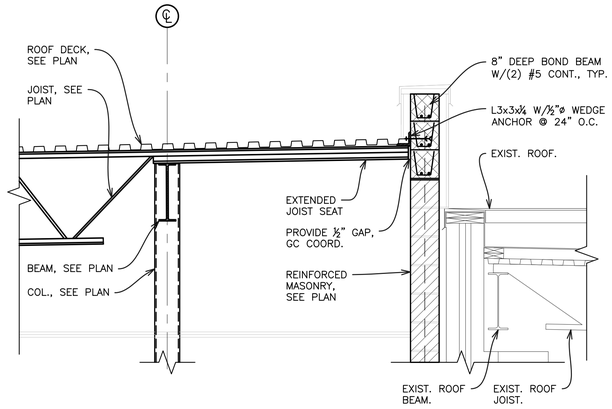

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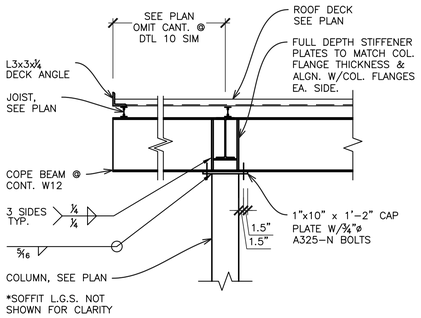

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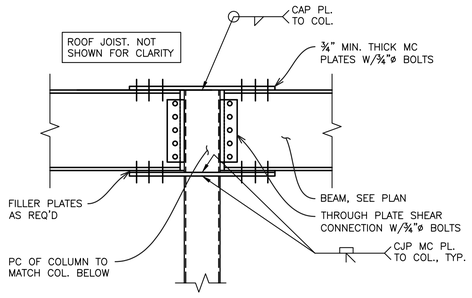

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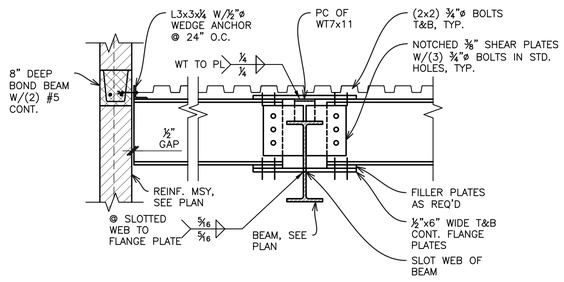

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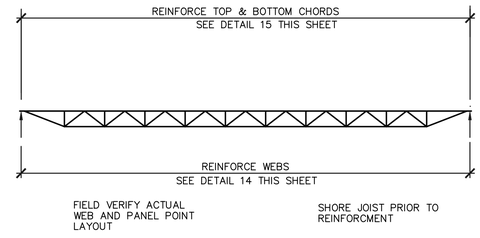
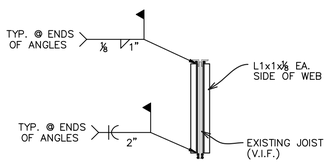
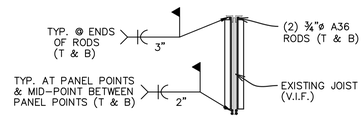
Scale: N.T.S.



13 JOIST REINFORCEMENT ELEVATION
Scale: N.T.S.



14 WEB REINF.
Scale: N.T.S.



15 T&B CHORD REINF.
Scale: N.T.S.

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
FRAMING DETAILS

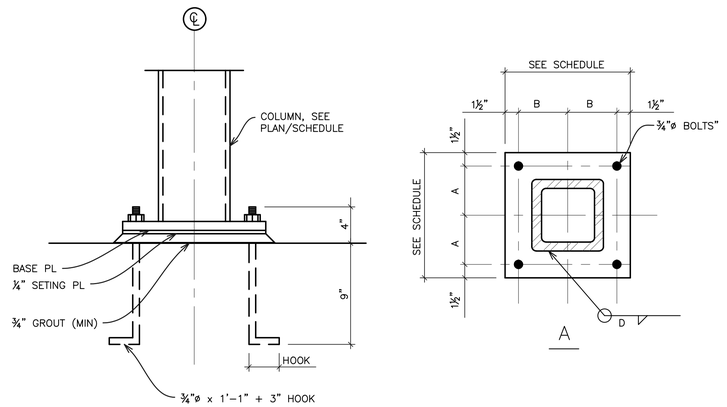
PROJECT INFORMATION

Date	APRIL 3, 2017
Rev. Date	
RLJA Proj	2015-052

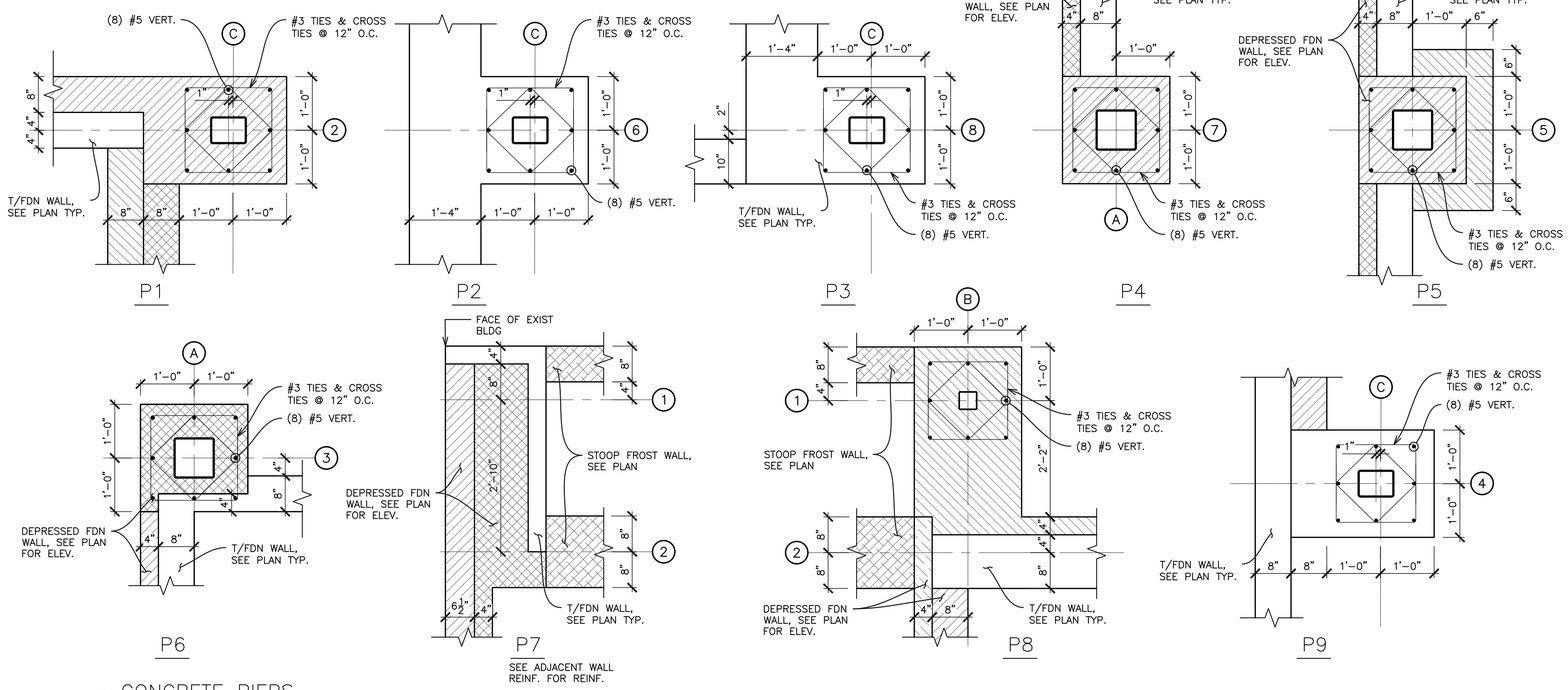
SHEET NUMBER
S5
OF
7

STEEL COLUMN SCHEDULE			
MARK / ELEVATION	C1	C2	C3
HIGH ROOF			
LOW ROOF			
F.F.	HSS 9×9×⅜	HSS 8×6×½	HSS 4×4×¼
BASE PLATE	PL 1¼" x 15" x1'–3"	PL 1¼" x 12" x1'–0"	PL ⅝" x 10" x0'–10"
DETAIL	1/S6	1/S6	1/S6
REMARKS	A= 6" B= 6"	A= 4½" B= 4½" A.B= ⅞"ø	A= 3½" B= 3½"

NOTES:
1. A.B = ¾" ø TYP. U.N.O.
2. WELD "D" = 5/16" TYP. U.N.O.



1 COLUMN BASE PLATE DETAILS
Scale: N.T.S.



2 CONCRETE PIERS
Scale: N.T.S.

FOOTING SCHEDULE (3000 PSF)					
MARK	SIZE A	SIZE B	SIZE C	REINFORCING	REMARKS
F60	6'–0"	6'–0"	1'–0"	4 #5 E.W.	
F66	6'–6"	6'–0"	1'–0"	5 #5 E.W.	

LINTEL SCHEDULE				
MARK	MEMBERS	SHP.	BRG.	REMARKS
L1	16" DEEP CMU BOND BEAM W/(2) #5 BARS CONT. GROUT SOLID		8"	–
L2	8" DEEP CMU BOND BEAM W/(2) #5 BARS CONT. GROUT SOLID		8"	–
L3	W8x10 + L4x3x¼" (LLV) + 5/16" BOT. PL.	IL	8"	CONT. BOT PLATE HAS 8" BEARING IN MASONRY E.E.

NOTES:
1. SEE DETAILS 3&4/S5 FOR ADDITIONAL INFORMATION.

MISCELLANEOUS LINTEL SCHEDULE		
WALL THICKNESS	≤4'–0" MSY. OPNG.	≤8'–0" MSY. OPNG.
EACH 4"	8" MSY. BOND BM. W/(1) #4 OR L3½x3½x¼	L6x3½x5/16
6"	8" MSY. BOND BM. W/(2) #4	N.A.
8"	8" MSY. BOND BM. W/(2) #4 OR (2) L3½x3½x¼	W8x10 + 5/16" PL. CONT.

OPENING SIZES AND LOCATIONS.
LINTELS SHALL BEAR ON SOLID BRICK MASONRY, TYPICALLY, WITH MASONRY ANCHORS SUPPLIED, EACH END. SEE TYPICAL STEEL LINTEL DETAIL FOR BEARING CONDITION SEE ARCHITECTURAL DRAWINGS FOR ALL MASONRY

BEARING PLATE SCHEDULE		
MK	MEMBERS	REMARKS
BPL 1	PL. ¾"x7" x 0'–8" W/(2) ¾"ø x 4" HEADED STUDS	SEE DETAIL 4/S5

		VERIFICATION AND INSPECTION	YES	
			CONTINUOUS	PERIODIC
1		STEEL CONSTRUCTION (IBC 2015 – 1705.2)		
	A	MATERIAL VERIFICATION OF HIGH–STRENGTH BOLTS, NUTS AND WASHERS		X
	B	INSPECTION OF HIGH STRENGTH BOLTING:		
		a BEARING TYPE		X
		b PRETENSIONED/SLIP CRITICAL TYPE W/MATCHMARKING, TWIST OFF OR DIRECT TENSION INDICATOR METHODS		X
		c PRETENSIONED/SLIP CRITICAL TYPE WITHOUT MATCHMARKING, TWIST OFF OR DIRECT TENSION INDICATOR METHODS	X	
	C	INSPECTION OF WELDING:		
		a COMPLETE AND PARTIAL PENETRATION WELDS	X	
		b MULTI PASS FILLET WELDS	X	
		c SINGLE PASS FILLET WELDS > 5/16"	X	
		d SINGLE PASS FILLET WELDS ≤ 5/16"		X
		e PLUG AND SLOT WELDS	X	
		f FLOOR AND ROOF DECK		X
	D	INSPECTION OF STEEL FRAME DETAILS		X
	E	MATERIAL VERIFICATION OF COLD–FORMED STEEL DECK		X
	F	ANCHORAGE OF COLD–FORMED STEEL TO BUILDING FRAME		X
2		CONCRETE CONSTRUCTION (IBC 2015 – 1705.3)		
	A	INSPECTION OF REINFORCING STEEL		X
	B	INSPECTION OF BOLTS INSTALLED IN CONCRETE (CAST IN PLACE)	X	
	C	INSPECTION OFF POST – INSTALLED ANCHOR IN CONCRETE		X
	D	VERIFY USE OF REQUIRED MIX DESIGN		X
	E	SAMPLING FRESH CONCRETE AND PERFORMING SLUMP, AIR CONTENT, AND DETERMINING THE TEMPERATURE OF FRESH CONCRETE AT TIME OF MAKING SPECIMENS FOR STRENGTH TESTS.	X	
	F	INSPECTION OF CONCRETE PLACEMENT	X	
	G	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TECHNIQUES		X
	H	INSPECTION OF PRECAST CONCRETE	X	
	I	ERECTION OF PRECAST CONCRETE		X
	J	INSPECTION OF FORM WORK FOR SHAPE, LOCATION & PLACEMENT		X
3		MASONRY CONSTRUCTION (IBC 2015 – 1705.4)		
	A	COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED		X
	B	VERIFICATION OF FIN PRIOR TO CONSTRUCTION		X
	C	AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
		a PROPORTIONS OF SITE–PREPARED MORTAR.		X
		b CONSTRUCTION OF MORTAR JOINTS.		X
		c LOCATION OF REINFORCEMENT		X
	D	DURING CONSTRUCTION THE INSPECTION PROGRAM SHALL VERIFY:		
		a SIZE AND LOCATION OF STRUCTURAL ELEMENTS		X
		b TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION.		X
		c SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT		X
		d WELDING OF REINFORCING BARS.	X	
		e PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F)		X
	E	PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
		a CLEANLINESS OF GROUT SPACE.		X
		b PLACEMENT OF REINFORCEMENT AND CONNECTORS.		X
		c PROPORTIONS OF SITE–PREPARED GROUT.		X
		d CONSTRUCTION OF MORTAR JOINTS.		X
	F	PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED.	X	
	G	GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS.	X	
5		SOILS (IBC 2015 – 1705.6)		
	A	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.		X
	B	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.		X
	C	PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.		X
	D	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	
	E	PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.		X

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RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
SCHEDULES & NOTES

PROJECT INFORMATION
Date APRIL 3, 2017
Rev. Date
RLJA Proj 2015-052

SHEET NUMBER
S6
OF
7

ABBREVIATIONS

ACT	ACOUST. CEILING TILE SYSTEM	CTOP	COUNTERTOP	FAAP	FIRE ALARM ANNUNCIATOR PANEL	IN	INCH	PR	PAIR	STRUC	STRUCTURAL
ACU	AIR CONDITIONING UNIT	CTR	COUNTER	FACP	FIRE ALARM CONTROL PANEL	INSUL	INSULATION	PT	PAINT	SUH	SUSPENDED UNIT HEATER
ADJ	ADJACENT	CUH	CABINET UNIT HEATER	FB	FACE BRICK	INT	INTERIOR	PLYWD	PLYWOOD	SUSP	SUSPENDED
ADS	ADJUSTABLE SHELVES	CUV	CABINET UNIT VENTILATOR	FBO	FURNISHED BY OWNER/OTHERS	JAN	JANITOR	QT	QUARRY TILE	SV	SHEET VINYL
AFF	ABOVE FINISH FLOOR	DEF	DEFIBRILLATOR	FD	FLOOR DRAIN	KEH	KITCHEN EXHAUST HOOD	QTZ	QUARTZ TILE	TB	TACK BOARD
AHU	AIR HANDLING UNIT	DF	DRINKING FOUNTAIN	FDTN	FOUNDATION	LAM	LAMINATE	R	RISER	TERR	TERRAZZO
AL	ALUMINUM	DIA	DIAMETER	FE	FIRE EXTINGUISHER	LAV	LAVATORY	RAD	RADIATION	T/O	TOP OF
ALT	ALTERNATE	DIM	DIMENSION	FEC	FIRE EXTINGUISHER CABINET	LF	LATERAL FILE	RB	RUBBER BASE	TP	TACK PANEL
AVG	AVERAGE	DN	DOWN	FH	FIRE HYDRANT	LK	LOCK/LOCKABLE CABINET	RD	ROOF DRAIN	TS	TACK STRIP
BD	BOARD	DP	DEEP	FHC	FIRE HOSE CABINET	LP	LIGHT POLE	REINF	REINFORCEMENT	TYP	TYPICAL
BITUM	BITUMINOUS	DR	DOOR	FIN	FINISH	LVT	LUXURY VINYL TILE	REQ'D	REQUIRED	UE	UNDERGROUND ELECTRICAL
BLDG	BUILDING	DS	DOWNSPOUT	FLR	FLOOR	MAS	MASONRY	RFT	RUBBER FLOOR TILE	UC	UNDERGROUND CABLE
BM	BEAM	DTL	DETAIL	FP	FOLDING PARTITION	MAX	MAXIMUM	RM	ROOM	UG	UNDERGROUND GAS
B/O	BOTTOM OF	DWG	DRAWING	FRP	FIBERGLASS REINFORCED PANEL	MB	MARKER BOARD	RST	RUBBER STAIR TREAD	UH	UNIT HEATER
BRG	BEARING	EA	EACH	FS	FLOOR SINK	MECH	MECHANICAL	RTU	ROOFTOP UNIT	U.N.O.	UNLESS NOTED OTHERWISE
BS	BACKSPLASH	EEW	EMERGENCY EYE WASH	FT	FEET	MEZZ	MEZZANINE	SAN	SANITARY SEWER	UV	UNIT VENTILATOR
CAB	CABINET	EF	EXHAUST FAN	FTG	FOOTING	MFR	MANUFACTURER	SB	SMART BOARD	VAT	VINYL ASBESTOS TILE
CB	CHALKBOARD	EIFS	EXTERIOR INSULATION & FINISH SYSTEMS	FURN	FURNACE	MH	MANHOLE	SC	SEALED CONCRETE	VCT	VINYL COMPOSITION TILE
CJ	CONTROL JOINT			G	GAS	MIN	MINIMUM	SECT	SECTION	VERT	VERTICAL
CLG	CEILING	EJ	EXPANSION JOINT	GA	GAUGE	MISC	MISCELLANEOUS	SF	SQUARE FOOT	V.I.F.	VERIFY IN FIELD
CLR	CLEAR	EL	ELEVATION	GALV	GALVANIZED	MLB	MAIL BOXES	SG	SINGLE	W	WATER
CMU	CONCRETE MASONRY UNIT	ELEC	ELECTRIC	GL	GLASS	MTL	METAL	SGT	STRUCTURAL GLAZED TILE	WC	WATER CLOSET
CO	CLEANOUT	ELEV	ELEVATOR	GMT	GROMMET	NTS	NOT TO SCALE	SIM	SIMILAR	WD	WOOD
COL	COLUMN	EMRG	EMERGENCY	GYP	GYPSUM WALL BOARD	OC	ON CENTER	SK	SINK	WDW	WINDOW
CONC	CONCRETE	EPDM	ETHYL, PROPYL, DIENE MONOMER	HC	HANDICAP	OE	OVERHEAD ELECTRICAL	SM	SMARTBOARD BY OWNER	WH	WATER HEATER
CONT	CONTINUOUS	EPT	EPOXY PAINT	HDWR	HARDWARE	OH	OVERHEAD	SQ	SQUARE	WS	WATER SOFTENER
CORR	CORRIDOR	EQ	EQUAL	HM	HOLLOW METAL	OPP	OPPOSITE	SS	STAINLESS STEEL	WT	WEIGHT
CPT-1	CARPET TILES	EXP	EXPOSED/EXPANSION	HORIZ	HORIZONTAL	P.LAM	PLASTIC LAMINATE	ST	STORM SEWER	WWF	WELDED WIRE FABRIC
CPT-2	WALK-OFF CARPET TILES	EXT	EXTERIOR	HR	HOUR	PCC	PRECAST CONCRETE	STD	STANDARD	W/	WITH
CR	COAT ROD	EXTG	EXISTING	HT	HEIGHT	PL	PLATE	STL	STEEL	W/O	WITHOUT
CT	CERAMIC TILE	FA	FIRE ALARM	HVAC	HEATING/VENTILATION/AIR COND.	PLAS	PLASTER	STP	STONE PANEL	YR	YEAR

ROOM FINISH SCHEDULE

ROOM NO.	ROOM	FLOOR	BASE	WALLS				CEILING	REMARKS
				NORTH	SOUTH	EAST	WEST		
160	CAFETERIA	QTZ/RFT	6" RB	CMU/GYP/PT	CMU/PT	CMU/GYP/PT	CMU/PT	ACT-1	NOTE 2
161	KITCHEN	EXTG/QT	EXTG/QT	EXTG/CMU/PT	EXTG/CMU/PT	EXTG/CMU/PT	EXTG/CMU/PT	EXTG/ACT-2	-
162	GIRLS	EXTG/CONC	EXTG	CMU/BF/EXTG	EXTG	EXTG	EXTG	EXTG	NOTE 1
163	BOYS	EXTG/CONC	EXTG	CMU/BF/EXTG	EXTG	EXTG	EXTG	EXTG	NOTE 1
164	CORRIDOR	QTZ	6" RB	CMU/PT	-	CMU/PT	CMU/PT	ACT-1	-
165	CORRIDOR	EXTG	EXTG	EXTG/CMU/PT	EXTG	EXTG	EXTG	EXTG	-
166	DISHWASHING	EXTG/QT	EXTG/QT	EXTG/GYP/PT	EXTG/PT	EXTG/PT	EXTG/PT	EXTG	-

ROOM SCHEDULE NOTES

NOTE 1: BF = BLOCK FILLER
NOTE 2: SEE FLOOR FINISH PLAN FOR STAIR TREAD AND RISER FINISH

DOOR SCHEDULE

DOOR NO.	DOORS				DOOR TYPE		FRAMES		GLAZING		DETAILS			HDWR GROUP	LABEL	REMARKS
	SG/PR	WIDTH	HEIGHT	THICK	MTL	ELEV.	MTL	ELEV.	DOOR	FRAME	HEAD	JAMB	SILL			
160A	PR	3'-0"	7'-0"	2"	AL	D1	AL	F4	GL-1	GL-1	3/A405	1/A404	-	01	-	NOTE 3
160B	SG	3'-0"	7'-0"	2"	AL	D1	AL	F3	GL-1	GL-1	4/A406	7/A404	-	02	-	-
161A	SG	4'-0"	7'-0"	1-3/4"	WD	D3	HM	F1	-	-	5/A405 SIM.	12/A404	-	05	1-1/2HR	NOTES 1 & 2
161B	SG	3'-0"	7'-0"	1-3/4"	WD	D3	HM	F1	-	-	5/A405	13/A404	-	06	1-1/2HR	-
162	SG	3'-0"	7'-0"	1-3/4"	WD	D3	HM	F1	-	-	5/A405 SIM.	11/A404	-	04	1-1/2HR	NOTE 4
163	SG	3'-0"	7'-0"	1-3/4"	WD	D3	HM	F1	-	-	5/A405 SIM.	10/A404	-	04	1-1/2HR	NOTE 4
164	PR	3'-0"	7'-0"	1-3/4"	WD	D2	HM	F2	GL-2	-	6/A405	9/A404	-	03	1-1/2HR	NOTES 1 & 2

DOOR SCHEDULE GENERAL NOTES

NOTE: ALL NEW HOLLOW METAL FRAMES IN SCHEDULE ABOVE SHALL BE PAINTED AS REQUIRED - BOTH SIDES - SEE SPECIFICATIONS
NOTE: ALL NEW WOOD DOOR(S) SHALL BE FACTORY STAINED - SEE SPECIFICATIONS

DOOR SCHEDULE NOTES

NOTE 1: TEMPLATE TO OPEN 180"
NOTE 2: DOOR(S) TO HAVE MAGNETIC HOLD-OPEN DEVICE(S) - SEE ELECTRICAL DRAWINGS
NOTE 3: PAINT REMOVABLE MULLION TO MATCH FRAME - SEE SPECIFICATIONS
NOTE 4: UNDERCUT DOOR 3/4"

GLASS TYPES

GL-1	1" INSULATED, LOW 'E', TEMPERED, TINTED GLASS
GL-2	5/16" FIRE-RATED GLASS

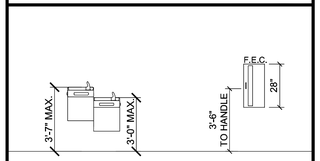
PARTITION TYPES

A ___ 8" CMU WALL - 2 HR FIRE RATED
B ___ 6" CMU WALL - EXTEND TO MIN. 4" ABOVE CEILING
C ___ 4" CMU WALL - EXTEND TO MIN. 4" ABOVE CEILING
D ___ 8" CMU WALL - MATCH EXISTING WIDTH - EXTEND TO MIN. 4" ABOVE CEILING
E ___ 6" CMU WALL - EXTEND TO ±3'-4" A.F.F. - VERIFY WALL HEIGHT WITH FOOD SERVICE CONTRACTOR

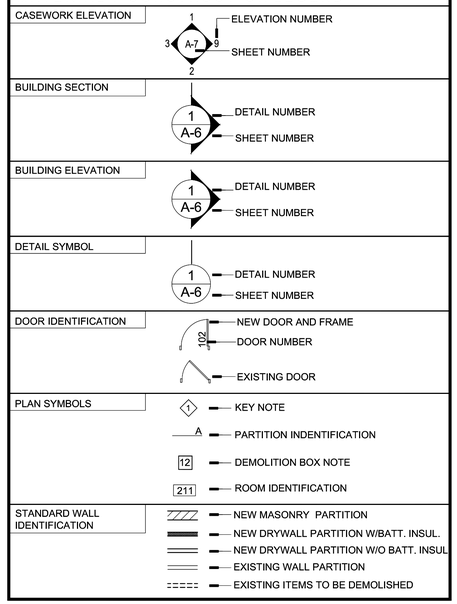
PARTITION NOTES

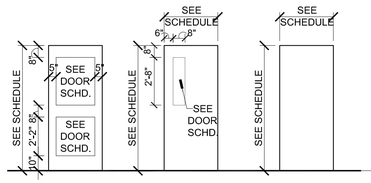
- FOR EXTERIOR WALL - SEE DETAILS
- ALL EXPOSED INTERIOR CMU SHALL BE CENTERED SCORED BLOCK - BONDING SHALL BE RUNNING BOND
- ALL EXPOSED FACE BRICK SHALL BE STACK BOND

MOUNTING HEIGHTS



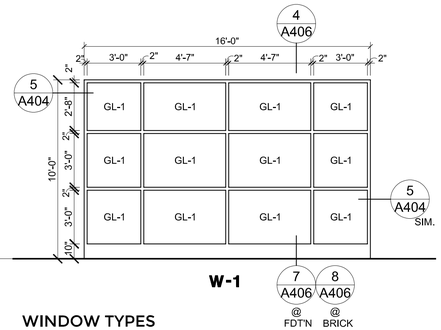
MATERIAL / CONSTRUCTION LEGEND





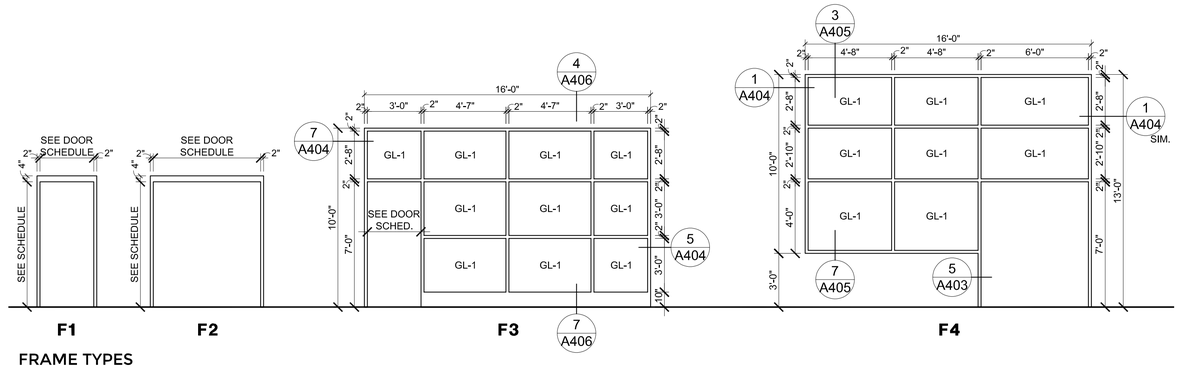
DOOR TYPES

SCALE: 1/4"=1'-0"



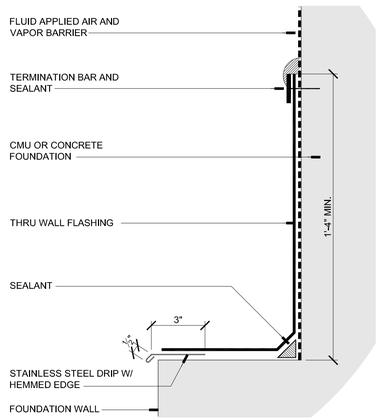
WINDOW TYPES

SCALE: 1/4"=1'-0"

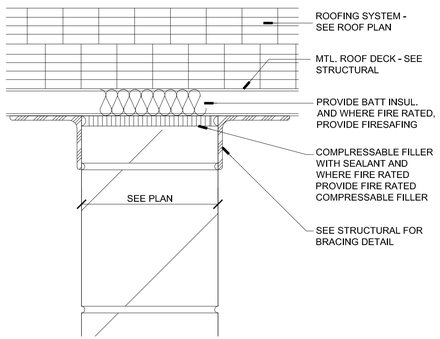


FRAME TYPES

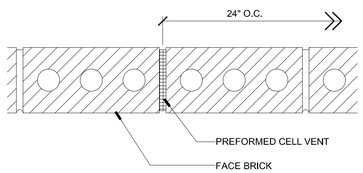
SCALE: 1/4"=1'-0"



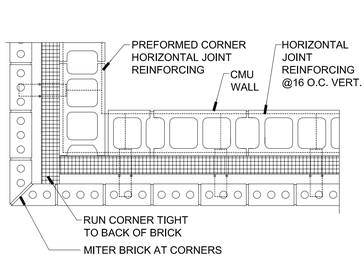
1 TYP. BASE FLASHING DETAIL
SCALE: 3"=1'-0"



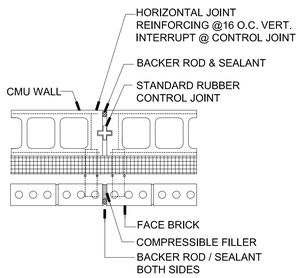
2 TYP. BRACING NON LOADBEARING MASONRY WALLS
SCALE: 3"=1'-0"



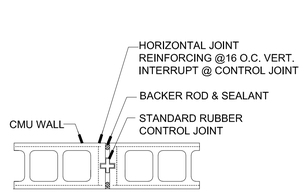
3 TYP. OPEN JOINT DETAIL
SCALE: 3"=1'-0"



4 TYP. CORNER DETAIL
SCALE: 1"=1'-0"



5 TYP. CONTROL JOINT
SCALE: 1"=1'-0"



6 TYP. CONTROL JOINT
SCALE: 1"=1'-0"

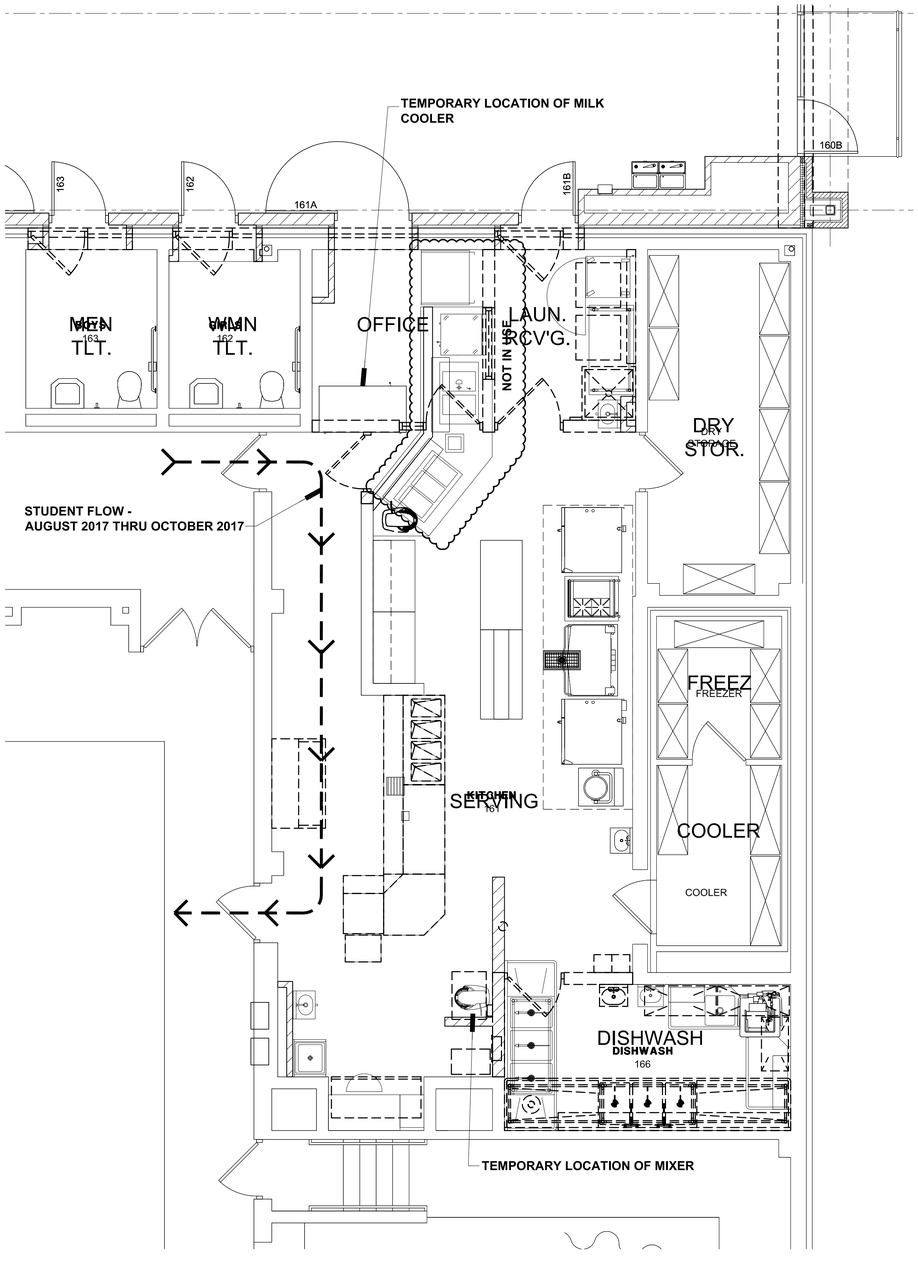
CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
GENERAL INFORMATION, SCHEDULES, DOOR, FRAME & WINDOW ELEVATIONS

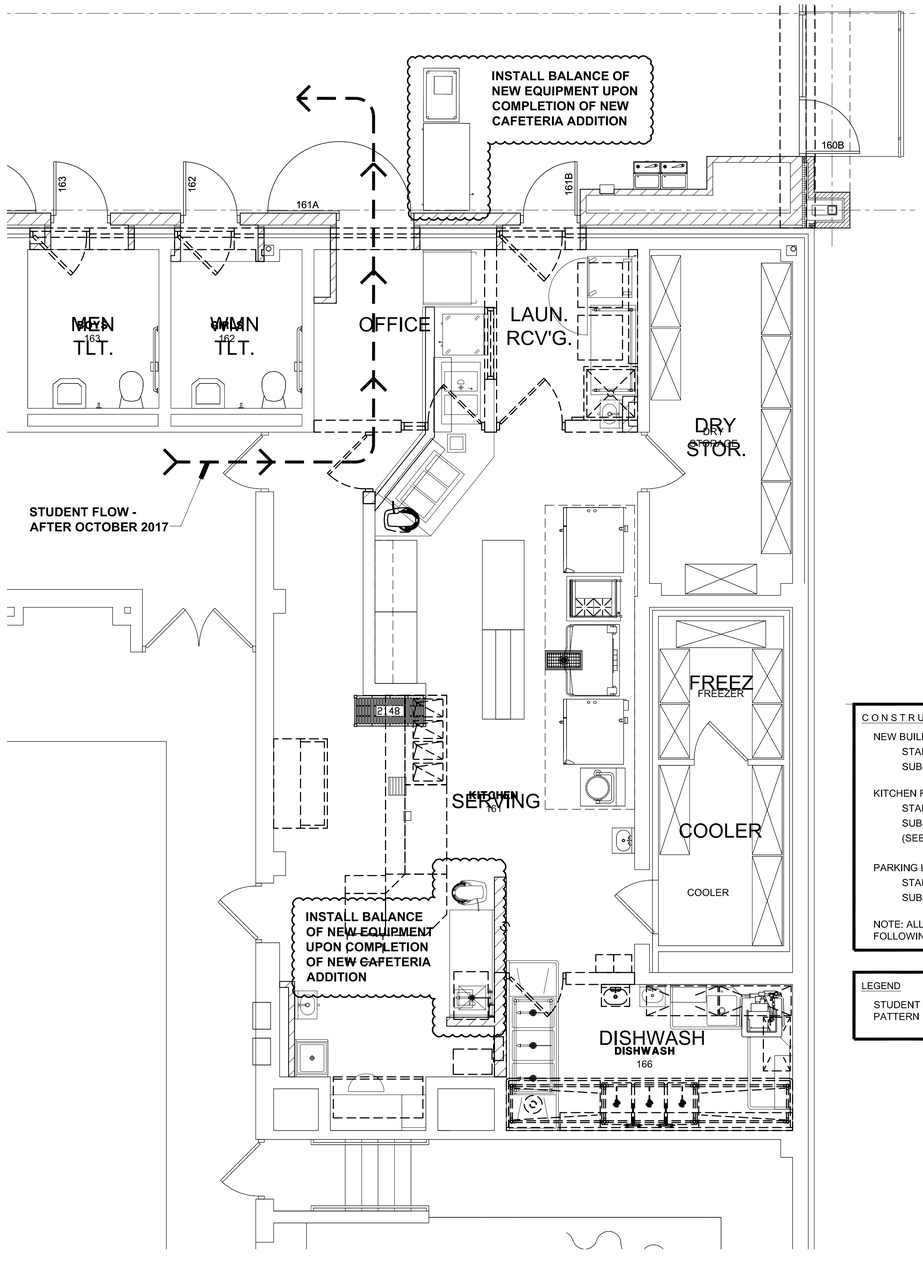
PROJECT INFORMATION
Date: April 3, 2017
Rev. Date:
RLJA Proj: 2015-052

SHEET NUMBER
G101
OF
1



1 KITCHEN SEQUENCING PLAN

SCALE: 1/4"=1'-0"



2 KITCHEN SEQUENCING PLAN

SCALE: 1/4"=1'-0"

CONSTRUCTION SCHEDULE

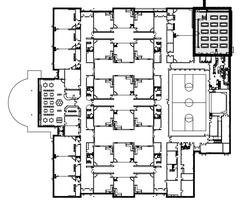
NEW BUILDING ADDITION	
START CONSTRUCTION	JUNE 6, 2017
SUBSTANTIAL COMPLETION	DECEMBER 16, 2017
KITCHEN REMODELING	
START CONSTRUCTION	JUNE 6, 2017
SUBSTANTIAL COMPLETION (SEE SEQUENCING PLAN)	AUGUST 11, 2017
PARKING LOT	
START CONSTRUCTION	JUNE 6, 2017
SUBSTANTIAL COMPLETION	AUGUST 4, 2017

NOTE: ALL FINAL COMPLETION DATES SHALL BE TWO WEEKS FOLLOWING THE ABOVE MENTIONED DATES

LEGEND

STUDENT FLOW PATTERN

CAFETERIA ADDITION



KEY PLAN

CAFETERIA ADDITION AND REMODELING TO

LEWIS LEMON ELEMENTARY SCHOOL

ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION

SEQUENCING PLAN AND CONSTRUCTION SCHEDULE

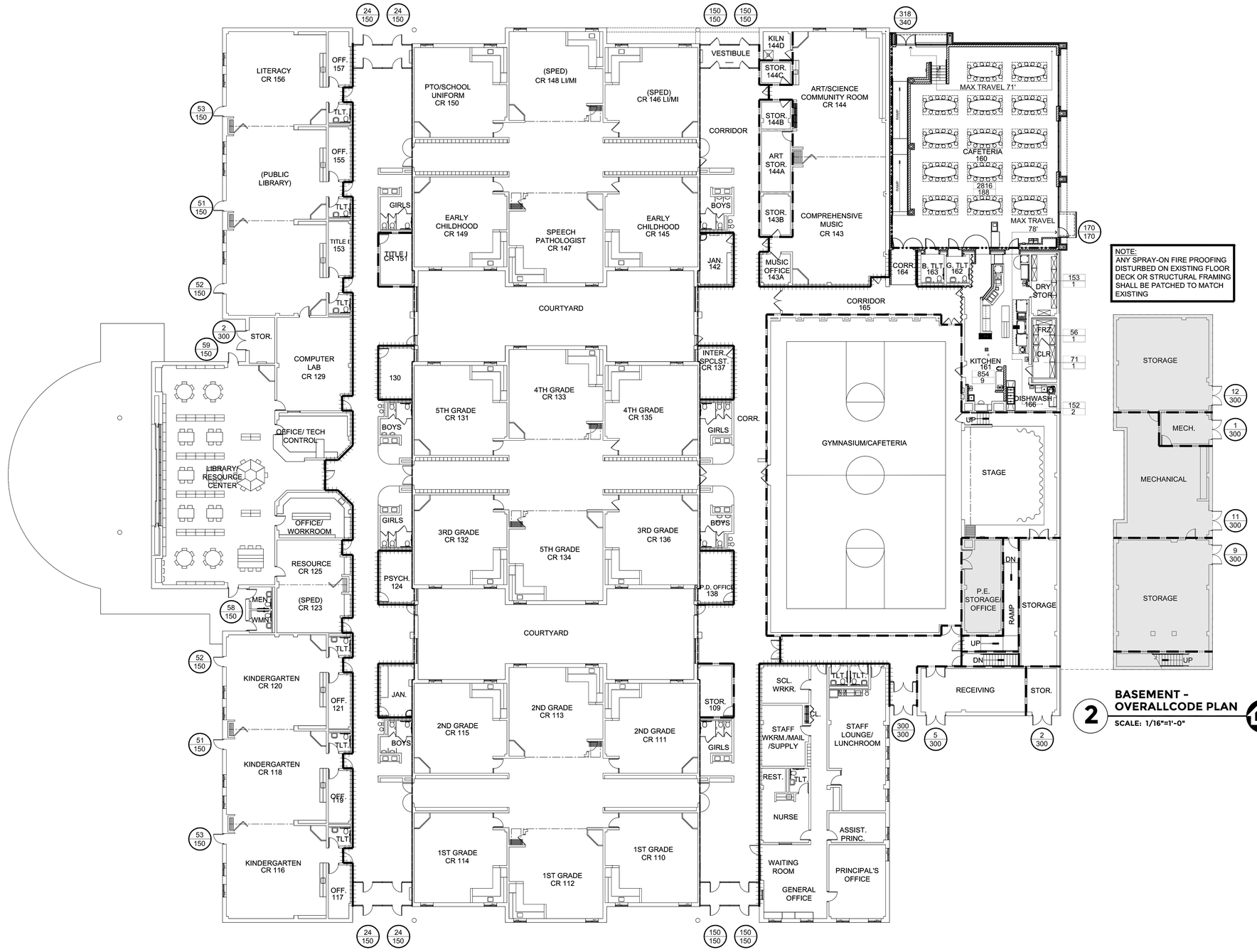
PROJECT INFORMATION			
Date	April 3, 2017		
Rev. Date			
RLJA Proj	2015-052		

SHEET NUMBER

OA101

OF

2



NOTE:
ANY SPRAY-ON FIRE PROOFING DISTURBED ON EXISTING FLOOR DECK OR STRUCTURAL FRAMING SHALL BE PATCHED TO MATCH EXISTING

1 FIRST FLOOR - OVERALLCODE PLAN
SCALE: 1/16"=1'-0"

2 BASEMENT - OVERALLCODE PLAN
SCALE: 1/16"=1'-0"

APPLICABLE CODES

2009	INTERNATIONAL BUILDING CODE
2009	INTERNATIONAL FIRE CODE
2009	INTERNATIONAL ENERGY CONSERVATION CODE
2009	INTERNATIONAL MECHANICAL CODE
2014	NATIONAL ELECTRIC CODE
2014	ILLINOIS PLUMBING CODE
2010	ADA STANDARDS
1997	ILLINOIS ACCESSIBILITY CODE

CODE COMPLIANCE NOTES

1. BUILDING USE: EDUCATION (E), ASSEMBLY (A-3)
2. TYPE OF PROJECT: NEW CONSTRUCTION
3. TYPE OF CONSTRUCTION: 2B
4. CAFETERIA ADDITION - ASSEMBLY (A-3) - 3,546 sf

ALLOWABLE SF	9,500 SF	(TABLE 503)
SPRINKLER INCREASE	N/A	(506.3)
TOTAL ALLOWABLE SF	9,500 SF	

5. OCCUPANT LOAD CALCULATED BY ROOM SQUARE FOOTAGE (TABLE 1004.1.1)

115 SF — AREA OF ROOM (SF)
2 OCC — OCCUPANT LOAD

150 / 150 — ACTUAL NUMBER OF OCCUPANTS / CAPACITY OF EXIT

BUILDING OCCUPANT LOAD = 1,954 OCCUPANTS

6. DOOR EXIT CAPACITY:
EXISTING = 36" DOOR = 150 OCCUPANTS
NEW ADDITION = 36" DOOR = 170 OCCUPANTS
7. MAXIMUM TRAVEL DISTANCE:

DISTANCE TO EXIT	MAX. 200' (TABLE 1016.1) EXTG BUILDING
DISTANCE TO EXIT	MAX. 200' (TABLE 1016.1) NEW ADDITION
COMMON PATH OF TRAVEL	75' MAX.
DEAD END CORRIDORS	MAX. 20' (SECT. 1018.4)

8. COORIDOR RATING:
OCCUPANCY (A AND E)TABLE 1018.1
1 HOUR RATING REQUIRED
9. FIRE EXTINGUISHERS: SEE PLAN FOR LOCATION

FIRE RESISTANCE LEGEND

- NEW 2 HOUR FIRE WALL
- EXISTING 2 HOUR FIRE WALL
- EXISTING 1 HOUR FIRE SEPERATION ASSEMBLY
- EXISTING 3/4 HOUR FIRE SEPERATION ASSEMBLY
- EXISTING 1/2 HOUR FIRE SEPERATION ASSEMBLY
- EXISTING 1 HOUR FLOOR/CEILING ASSEMBLY

FIRE RATINGS OF EXISTING WALLS

NOTE:
ANY PENETRATIONS THRU EXISTING FIRE RATED WALLS AND FLOORS NEED TO BE PROPERLY FIRE CAULKED AND SEALED.

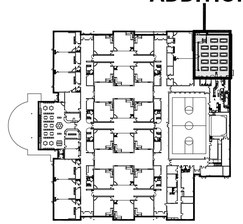
PLUMBING FIXTURES

NOTE:
PLUMBING FIXTURES ARE EXISTING

2009 INTERNATIONAL ENERGY CODE MINIMUM REQUIREMENTS

INSULATION ABOVE ROOF DECK	R=20 C.I.
MASS WALLS ABOVE GRADE	R=11.4 C.I.
METAL FRAMED MASS WALLS ABOVE GRADE	R=13 + R7.5 C.I.
WALLS BELOW GRADE	R=7.5 C.I.
HEATED SLABS ON GRADE BELOW	R=15 FOR 24"
OPAQUE SWINGING DOORS	U=0.70
STOREFRONT U-FACTOR	U=0.45
ENTRANCE DOOR	U=0.80
SHGC	0.40

CAFETERIA ADDITION



KEY PLAN

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

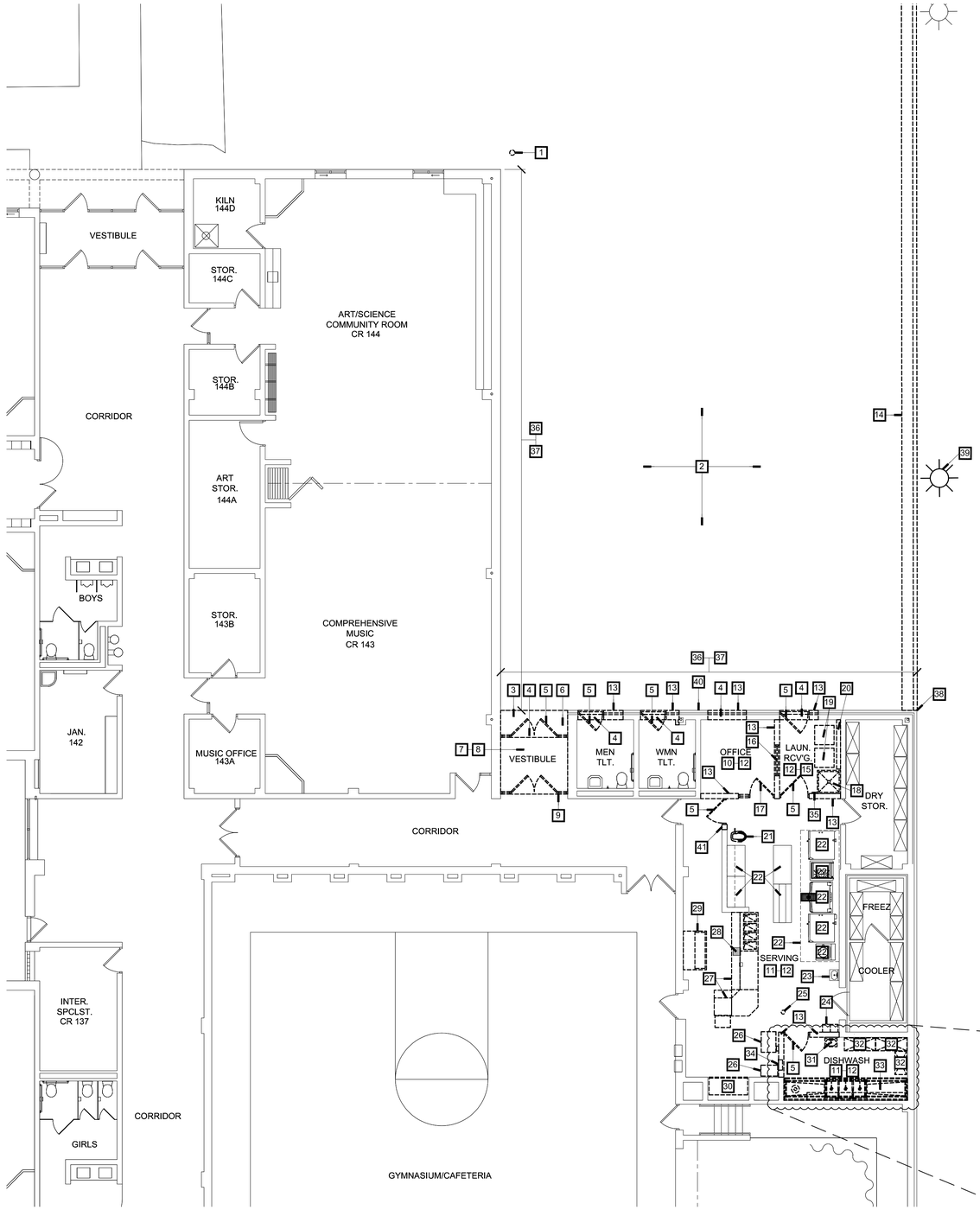
RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
FIRST FLOOR - OVERALL CODE PLAN

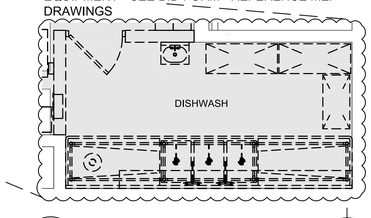
PROJECT INFORMATION

Date	April 3, 2017		
Rev. Date			
RLJA Proj	2015-052		

SHEET NUMBER
OA102
OF
2



1 FIRST FLOOR - DEMOLITION PLAN
SCALE: 1/8"=1'-0"



NOTE: FOR INFORMATIONAL PURPOSES ONLY PROVIDE COST BREAKOUT UNDER BASE BID FOR RENOVATION WORK TO SHADED AREA, INCLUDING ALL ASSOCIATED TRADES, EXCLUDING KITCHEN EQUIPMENT - SEE BID FORM - REFERENCE MEP DRAWINGS

2 PARTIAL FIRST FLOOR
SCALE: 1/4"=1'-0" COST BREAKOUT PLAN

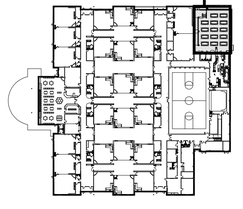
DEMOLITION GENERAL NOTES

1. THE GENERAL CONTRACTOR IS TO COORDINATE AND PROVIDE ALL DEMOLITION AND REMOVAL OF DEBRIS NECESSARY TO ACCOMMODATE NEW CONSTRUCTION
2. THE DEMOLITION PLAN IS PROVIDED AS AID IN PLANNING AND DOES NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY IN FIELD VERIFYING THE EXISTING JOB SITE
3. PROVIDE ALL TEMPORARY SHORING AS REQUIRED TO SUPPORT STRUCTURES AND FINISHES TO REMAIN
4. ALL AREAS, FINISHES AND ITEMS NOT REQUIRING DEMOLITION MUST BE PROTECTED DURING DEMOLITION AND CONSTRUCTION WORK
5. THIS DEMOLITION PLAN IS TO BE USED IN CONJUNCTION WITH THE REST OF THE SHEETS IN THE SET
6. EACH CONTRACTOR IS RESPONSIBLE TO PATCH AND MATCH EXISTING TO REMAINING OPENINGS CREATED FROM DEMOED PENETRATIONS THRU WALLS, CEILINGS AND FLOORS
7. ALL ITEMS TO BE REMOVED SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR UNLESS NOTED OTHERWISE
8. **REFERENCE HVAC, PLUMBING, AND ELECTRICAL SHEETS FOR ITEMS TO BE REMOVED, RELOCATED AND PATCHED - EACH TRADE RESPONSIBLE FOR PATCHING**
9. PRIOR TO DEMOLITION THE CONTRACTOR SHALL VERIFY WITH THE OWNER OF ITEMS TO BE SALVAGED IN THE PROJECT AREAS IDENTIFIED FOR DEMOLITION - SALVAGED ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND RETURNED TO THE OWNER - ANY ITEMS NOT WANTED BY THE OWNER SHALL BE DISPOSED OF BY THE CONTRACTOR

DEMOLITION BOX NOTES

1. REMOVE EXISTING CONCRETE BOLLARD - SEE CIVIL DRAWINGS
2. SEE CIVIL DRAWINGS FOR ADDITIONAL DEMOLITION NOTES
3. REMOVE EXISTING CONCRETE STOOP - SEE CIVIL DRAWINGS
4. CUT-DOWN EXISTING FOUNDATION WALL AS REQUIRED FOR NEW WORK
5. REMOVE EXISTING DOOR(S), FRAME, AND HARDWARE COMPLETE
6. REMOVE EXISTING PLASTER SOFFIT COMPLETE
7. REMOVE EXISTING FLOOR FINISH DOWN TO EXISTING CONCRETE SUB-FLOOR AND BASE - SEE SPECIFICATIONS
8. REMOVE EXISTING GYP CEILING AND LIGHTING COMPLETE - SEE ELECTRICAL DRAWINGS
9. REMOVE EXISTING DOOR(S), FRAME, HARDWARE AND WALL ABOVE COMPLETE
10. REMOVE EXISTING SUSPENDED CEILING AND GRID AND RELOCATE LIGHTS AS REQUIRED FOR NEW WORK - SEE ELECTRICAL DRAWINGS
11. EXISTING SUSPENDED CEILING TO REMAIN - REWORK AS REQUIRED - RELOCATE EXISTING LIGHTS AS REQUIRED - SEE ELECTRICAL DRAWINGS
12. EXISTING FLOORING TO REMAIN - PATCH AS REQUIRED FOR NEW WORK
13. REMOVE EXISTING MASONRY WALL AS REQUIRED FOR NEW WORK
14. REMOVE EXISTING CONCRETE CURB AS REQUIRED - SEE CIVIL DRAWINGS
15. REMOVE EXISTING LIGHTING - SEE ELECTRICAL DRAWINGS
16. REMOVE EXISTING BORROWED LIGHT COMPLETE
17. REMOVE EXISTING DOOR(S), FRAME, SIDELITE AND HARDWARE COMPLETE
18. REMOVE EXISTING SLOP SINK COMPLETE - SEE PLUMBING DRAWINGS
19. REMOVE AND SALVAGE EXISTING WASHER AND DRYER - RETURN TO OWNER - SEE MECHANICAL AND ELECTRICAL DRAWINGS
20. REMOVE EXISTING WALL MOUNTED RADIANT HEAT SYSTEM COMPLETE - SEE MECHANICAL DRAWINGS
21. RELOCATE EXISTING MIXER - SEE FOOD SERVICE AND ELECTRICAL DRAWINGS
22. EXISTING KITCHEN EQUIPMENT TO REMAIN - SEE FOOD SERVICE, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS
23. EXISTING HAND SINK TO REMAIN - SEE PLUMBING DRAWINGS
24. REMOVE AND SALVAGE EXISTING LOCKERS - RETURN TO OWNER
25. RELOCATE EXISTING FLOOR DRAIN - SEE PLUMBING DRAWINGS
26. REMOVE EXISTING KITCHEN EQUIPMENT - SEE FOOD SERVICE AND ELECTRICAL DRAWINGS
27. REMOVE EXISTING SERVING LINE COUNTER COMPLETE - SEE FOOD SERVICE AND ELECTRICAL DRAWINGS
28. EXISTING FLOOR SINK TO REMAIN - SEE FOOD SERVICE AND PLUMBING DRAWINGS
29. REMOVE AND SALVAGE EXISTING COOLER - SEE FOOD SERVICE DRAWINGS
30. REMOVE AND SALVAGE EXISTING REFRIGERATOR - RETURN TO OWNER
31. REMOVE, SALVAGE AND REINSTALL EXISTING HAND SINK - SEE PLUMBING DRAWINGS
32. REMOVE AND SALVAGE EXISTING SHELVING UNIT(S) - RETURN TO OWNER
33. REMOVE EXISTING TRIPLE SINK - SEE FOOD SERVICE AND PLUMBING DRAWINGS
34. REMOVE EXISTING ELECTRICAL PANEL AS REQUIRED - SEE ELECTRICAL DRAWINGS
35. REMOVE AND SALVAGE EXISTING KEY BOX - RETURN TO OWNER
36. REMOVE EXISTING METAL COPING CAP
37. SEE ELECTRICAL FOR DEMOLITION OF WALL MOUNTED ITEMS
38. CHIP OUT LOOSE CONCRETE AT CORNER FOUNDATION WALL AND PATCH
39. REMOVE EXISTING LIGHT POLE - SEE CIVIL AND ELECTRICAL DRAWINGS
40. REMOVE EXISTING OVERFLOW SCUPPER ABOVE
41. REMOVE EXISTING MASONRY AT DOOR JAMB AS REQUIRED

CAFETERIA ADDITION



KEY PLAN

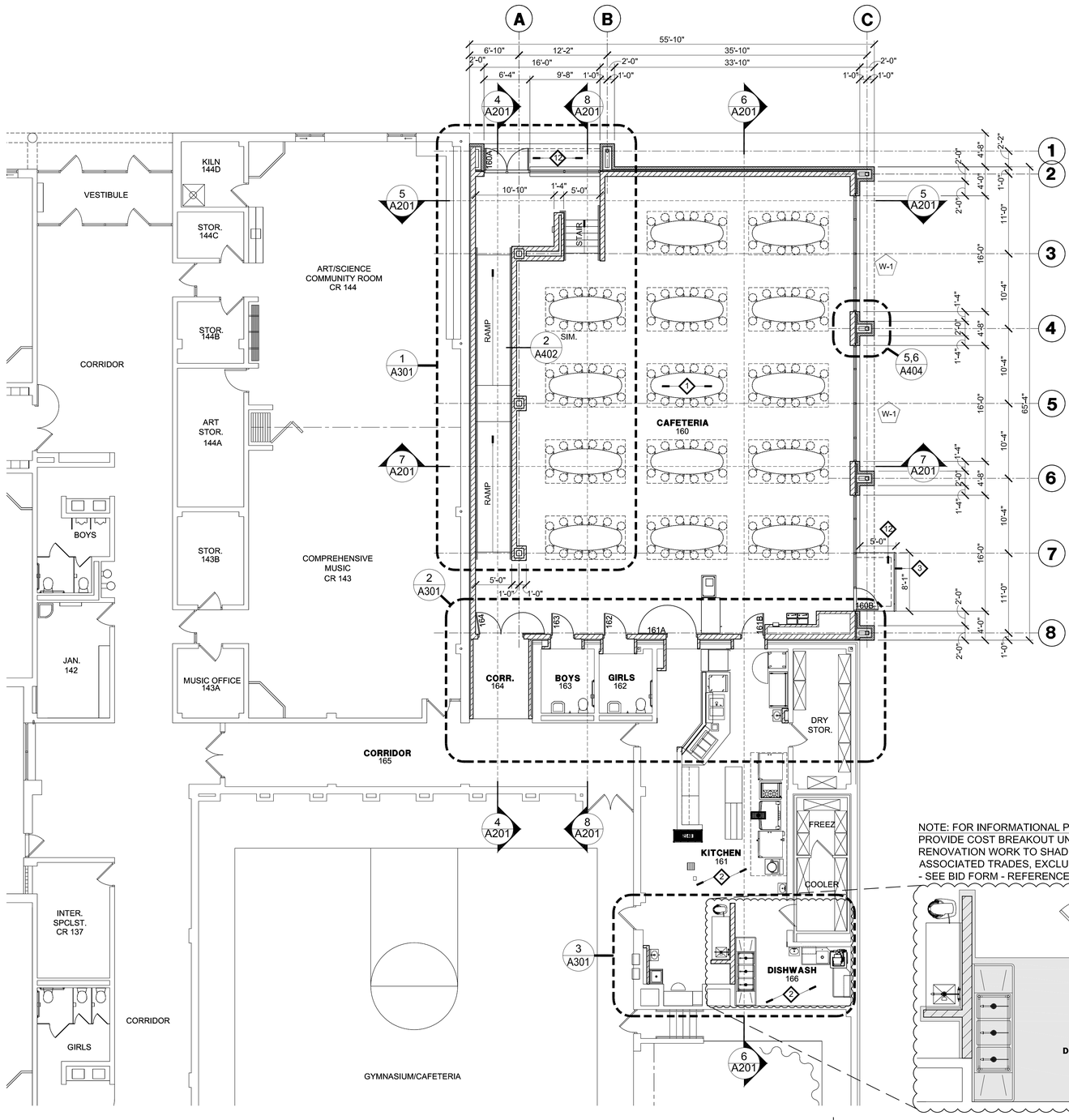
CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
FIRST FLOOR - DEMOLITION PLAN

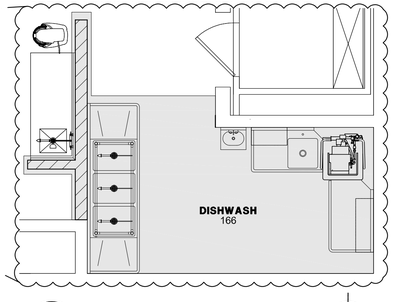
PROJECT INFORMATION
Date April 3, 2017
Rev. Date
RLJA Proj 2015-052

SHEET NUMBER
A101
OF
4



1 **FIRST FLOOR - PLAN**
SCALE: 1/8"=1'-0"

NOTE: FOR INFORMATIONAL PURPOSES ONLY
PROVIDE COST BREAKOUT UNDER BASE BID FOR RENOVATION WORK TO SHADED AREA, INCLUDING ALL ASSOCIATED TRADES, EXCLUDING KITCHEN EQUIPMENT - SEE BID FORM - REFERENCE MEP DRAWINGS



2 **PARTIAL FIRST FLOOR**
SCALE: 1/4"=1'-0" COST BREAKOUT PLAN

GENERAL NOTES

1. FIN. FLR. EL: = 0'-0" = 780.65' UNLESS NOTED OTHERWISE.
2. SEE MEP'S FOR ALTERATIONS TO EXISTING CEILINGS FOR INSTALLATION OF ABOVE-CEILING PIPING
3. CONTRACTOR SHALL COORDINATE ALL MECHANICAL AND ELECTRICAL FLOOR, ROOF AND WALL SLEEVES AND ALL MECHANICAL SHAFTS AND OPENINGS WITH MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL, STRUCTURAL AND ARCHITECTURAL DRAWINGS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. GENERAL CONTRACTOR SHALL PROVIDE SLEEVES AT FLOOR AND ROOF OPENINGS AS REQUIRED TO ALLOW INSTALLATION OF ALL DUCTS AND PIPING AS SHOWN ON THE MECHANICAL AND ELECTRICAL DRAWINGS.
4. PARTITIONS ARE DIMENSIONED TO THE FACE OF THE WALL UNLESS NOTED OTHERWISE.
5. WHERE DISCREPANCIES EXIST BETWEEN THE DRAWINGS OF THE VARIOUS TRADES, CONSULT THE ARCHITECT BEFORE PROCEEDING WITH WORK.
6. COORDINATE PLACEMENT OF ALL CEILING ELEMENTS WITH MECHANICAL, ELECTRICAL AND INSTALLER. WHERE DISCREPANCIES EXIST BETWEEN DRAWINGS AND INSTALLATION, REVIEW WITH ARCHITECT PRIOR TO PROCEEDING.
7. CONTRACTOR'S RESPONSIBILITY FOR DAMAGE DURING CONSTRUCTION: THE CONTRACTOR WILL REPAIR AND/OR REPLACE ALL DAMAGED MATERIALS THAT ARE FOUND TO HAVE BEEN MADE DURING THE COURSE OF THE WORK AND CLEAN-UP PROCEDURE. REPAIR SHALL MEAN THE ITEM(S) ARE RETURNED TO THEIR ORIGINAL STATE, AS A MINIMUM, AS DETERMINED BY THE OWNER.
8. ALL REFUSE AND DEBRIS SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED OF BY THE CONTRACTOR.
9. WHERE SPECIFIC DIMENSIONS, DETAILS OR DESIGN INTENT CANNOT BE DETERMINED, CONSULT THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

KEY NOTES

1. TABLES BY OWNER (TYPICAL)
2. PATCH FLOORING AS REQUIRED FOR NEW WORK - SEE FLOOR FINISH PLAN
3. METAL GUARDRAIL - SEE ELEVATION 8/A301
4. PATCH WALL - TOOTH IN AS REQUIRED - PAINT
5. SEMI-RECESSED FIRE EXTINGUISHER CABINET AND EXTINGUISHER
6. DRINKING FOUNTAIN - SEE PLUMBING DRAWINGS
7. ROOF DRAIN - SEE PLUMBING DRAWINGS
8. 8'X8' FABRICATED TARGET SUMP, STARTING THICKNESS 1"
9. PROVIDE AN OVERFLOW SCUPPER OPENING THRU THE EXISTING PARAPET WALL - FLASH PER SMACNA REQUIREMENTS - VERIFY EXACT LOCATION WITH ARCHITECT
10. INFILL EXISTING MASONRY WALL AT OLD OVERFLOW LOCATION TO MATCH EXISTING WALL THICKNESS
11. PROVIDE NEW RUBBER WALK-PAD(S)
12. CONCRETE STOOP - SEE STRUCTURAL DRAWINGS
13. 8X8X FACE BRICK - FIELD
14. 8X8X GLAZED FACE BRICK - ACCENT BAND
15. EXPOSED CONCRETE FOUNDATION WALLS SHALL HAVE RUBBED FINISH
16. METAL ROOF COPING
17. METAL WALL PANEL SYSTEM
18. CUT IN NEW OVERFLOW SCUPPER IN EXISTING WALL - SEE ROOF PLAN
19. METAL WINDOW SILL FLASHING
20. ALUMINUM STOREFRONT WINDOW AND DOOR DOOR SYSTEM
21. OVERFLOW SCUPPER - SEE ROOF PLAN
22. TOOTH-IN AND PATCH MASONRY AS REQUIRED - MATCH EXISTING COURSING
23. FURNITURE BY OWNER
24. CASTSTONE WALL CAP
25. METAL HANDRAIL - PAINT
26. FULLY RECESSED UNIT HEATER - SEE MECHANICAL
27. MASONRY PLUMBING CHASE
28. GREASE TRAP SANITARY PIPING - PROTECT UNDER FOUNDATIONS - COORDINATE WITH AGGREGATE PIERS - SEE PLUMBING DRAWINGS
29. WALL LOUVER -PAINT - SEE MECHANICAL

CAFETERIA ADDITION AND REMODELING TO

LEWIS LEMON ELEMENTARY SCHOOL

ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION

FIRST FLOOR - PLAN

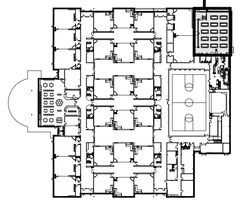
PROJECT INFORMATION

Date	April 3, 2017
Rev. Date	
RLJA Proj	2015-052

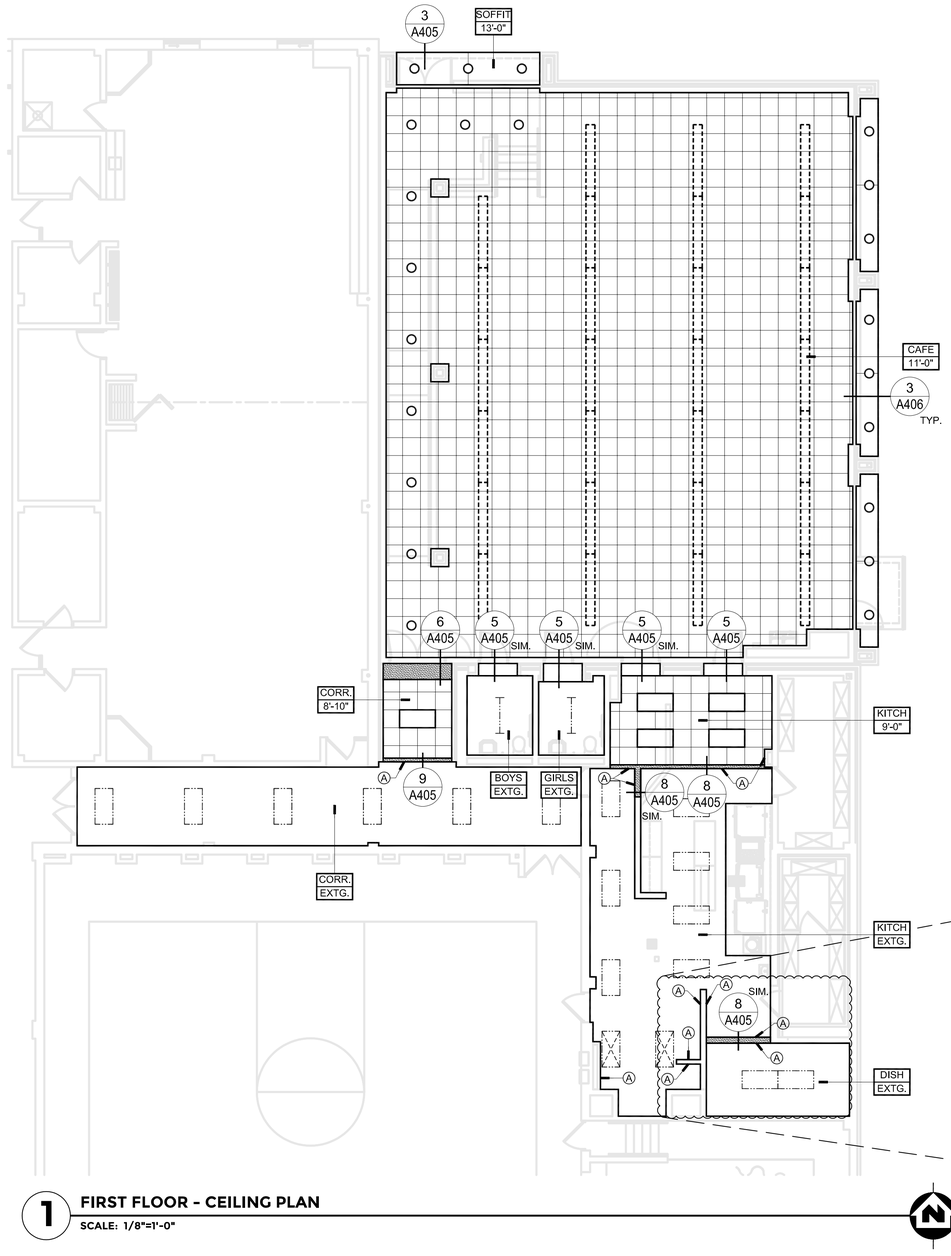
SHEET NUMBER

A102
OF
4

CAFETERIA ADDITION

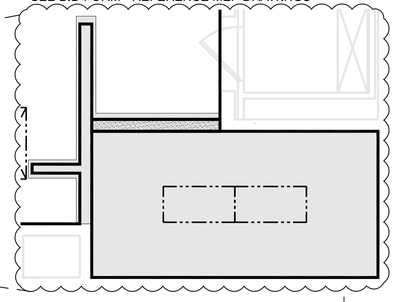


KEY PLAN



1 **FIRST FLOOR - CEILING PLAN**
SCALE: 1/8"=1'-0"

NOTE: FOR INFORMATIONAL PURPOSES ONLY
PROVIDE COST BREAKOUT UNDER BASE BID FOR RENOVATION WORK TO SHADED AREA, INCLUDING ALL ASSOCIATED TRADES, EXCLUDING KITCHEN EQUIPMENT - SEE BID FORM - REFERENCE MEP DRAWINGS



2 **PARTIAL FIRST FLOOR**
SCALE: 1/4"=1'-0" COST BREAKOUT PLAN

REFLECTED CEILING GENERAL NOTES

1. ALL CEILING HEIGHTS ARE TAKEN FROM FINISH FLOOR OF INDIVIDUAL AREAS
2. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATION OF BUILT-IN ITEMS, INCLUDING SUPPLY DIFFUSERS, EXHAUST REGISTERS, ETC.
3. VERIFY NEW CEILING HEIGHT SHOWN.
4. PROVIDE ADEQUATE CLEARANCE FOR ELECTRICAL AND MECHANICAL WORK.
5. PRIOR TO THE INSTALLATION OF ANY MODIFIED CEILING HEIGHTS NOTIFY ARCHITECT

REFLECTED CEILING PLAN LEGEND

LIGHTING IDENTIFICATION

- RELOCATED 2' X 4' RECESSED FLUORESCENT LIGHT FIXTURE - SEE ELECTRICAL DWGS
- EXISTING 2' X 4' RECESSED FLUORESCENT LIGHT FIXTURE - SEE ELECTRICAL DWGS
- EXISTING PENDENT OR SURFACE MOUNTED LIGHT FIXTURE - SEE ELECTRICAL DWGS
- NEW PENDENT OR SURFACE MOUNTED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- NEW RECESSED CAN LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS

CEILING TILE IDENTIFICATION

- 2'X2' ACOUSTICAL CEILING TILE AND GRID
- GYPSUM WALL BOARD CEILING OR SOFFIT - PAINT

CEILING HEIGHT SYMBOL

103 — ROOM NUMBER
9'-0" — CEILING HEIGHT

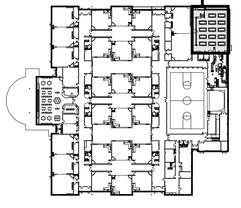
DETAIL SYMBOL

1 / A-6 — DETAIL NUMBER / SHEET NUMBER

REFLECTED CEILING KEY NOTES

Ⓐ REWORK EXISTING CEILING AS REQUIRED

CAFETERIA ADDITION



KEY PLAN

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
FIRST FLOOR - CEILING PLAN

PROJECT INFORMATION			
Date	April 3, 2017		
Rev. Date			
RLJA Proj	2015-052		

SHEET NUMBER
A103
OF
4

1 ROOF PLAN
SCALE: 1/8"=1'-0"

KEY NOTES

1. SEE SHEET A102 TO REFERENCE PLAN KEY NOTE

ROOF PLAN - LEGEND

INDICATES TAPERED INSULATION SADDLE, SLOPE OF TAPER TO BE 1/2" PER FOOT - VERIFY SLOPE IN FIELD. TAPERED INSULATION MANUFACTURER TO DESIGN TAPERED INSULATION AS REQUIRED TO PROVIDE PROPER SLOPE

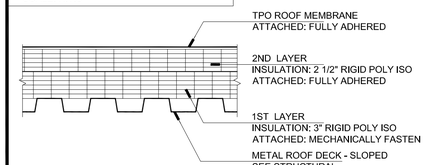
INDICATES EXISTING ROOF

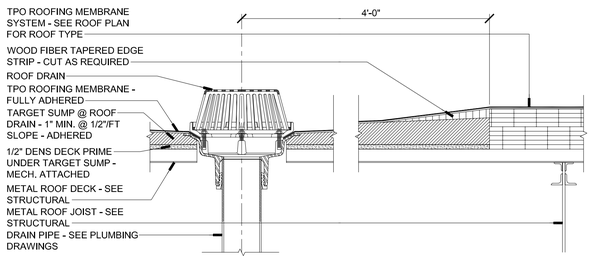
ROOF PLAN - GENERAL NOTES

1. ALL DETAILS SHALL BE APPROVED BY THE ROOFING MANUFACTURER IN ORDER TO KEEP THE NEW ROOFING WARRANTY INTACT
2. PROVIDE SADDLES AT ALL MECHANICAL ROOF TOP UNITS AND OTHER ROOF PENETRATIONS
3. FLASH IN ANY EXISTING ROOF PENETRATIONS PER ROOFING MANUFACTURER'S GUIDELINES
4. ALL FLOW THRU SCUPPERS TO BE INSTALLED PER SMACNA AND MANUFACTURER'S RECOMMENDATIONS
5. ALL EXISTING ROOFS HAVE EXCEEDED MANUFACTURED WARRANTIES

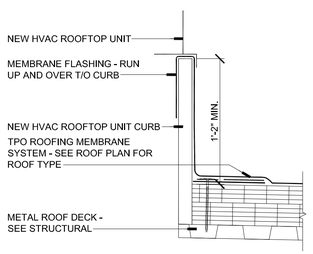
ROOF TYPES

ROOF TYPE "A"
SCALE: N.T.S

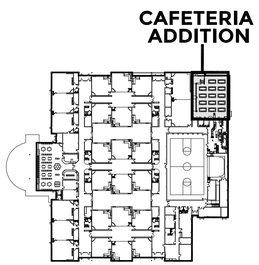




2 DETAIL
SCALE: 1 1/2"=1'-0"



3 CURB DETAIL
SCALE: 1 1/2"=1'-0"



KEY PLAN

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

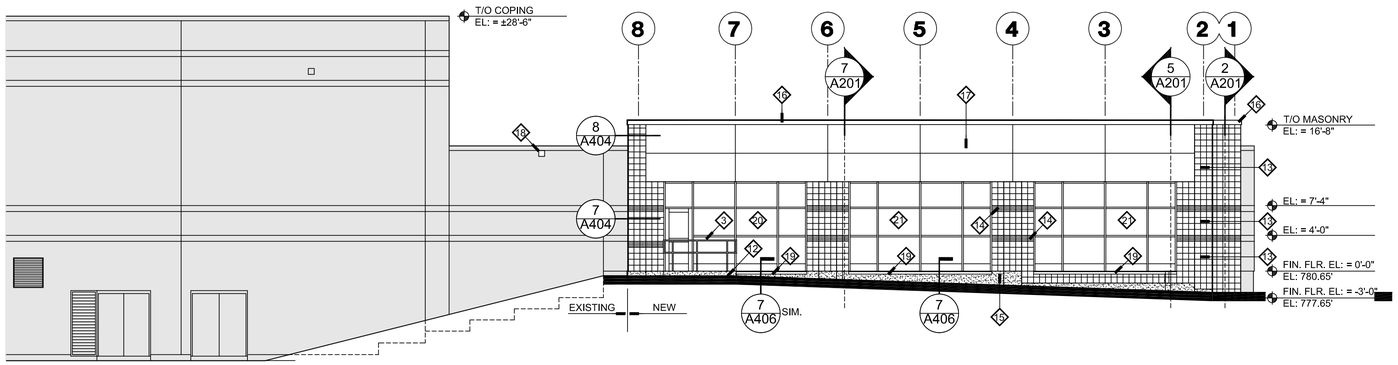
SHEET IDENTIFICATION
ROOF PLAN

PROJECT INFORMATION	
Date	April 3, 2017
Rev. Date	
RLJA Proj	2015-052

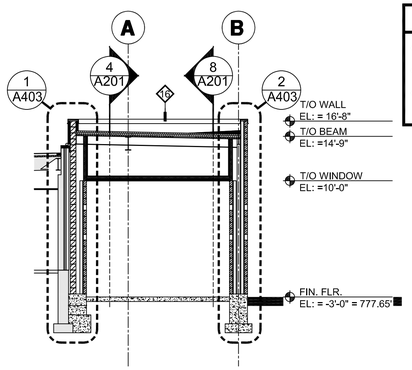
SHEET NUMBER
A104
OF
4

GENERAL NOTES

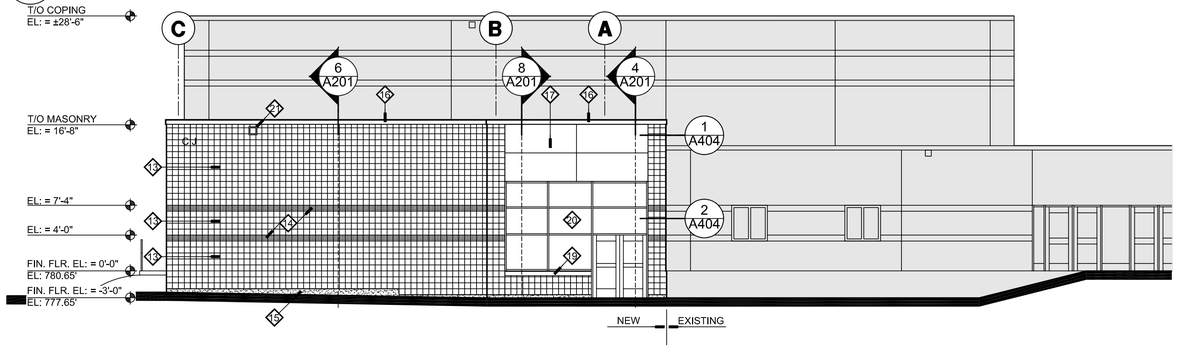
- PLAN KEY NOTES - SEE SHEET A102..... 1
- ALL ELEVATIONS ARE TAKEN FROM 0'-0" = 780.65' (UNO)
- ALL NEW EXTERIOR MASONRY TO RECIEVE ANTI GRAFFITI COATING



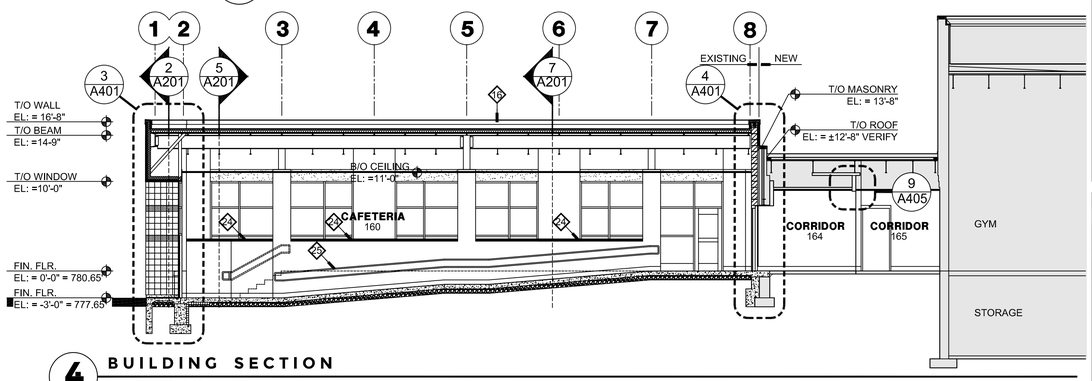
1 EAST ELEVATION
SCALE: 1/8"=1'-0"



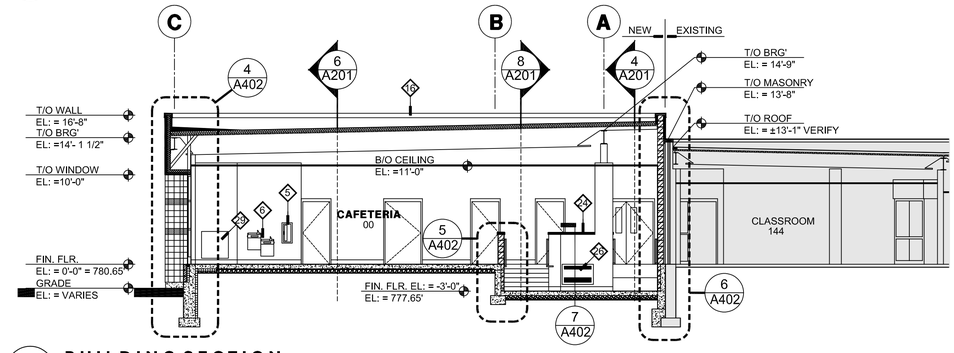
2 EAST ELEVATION
SCALE: 1/8"=1'-0"



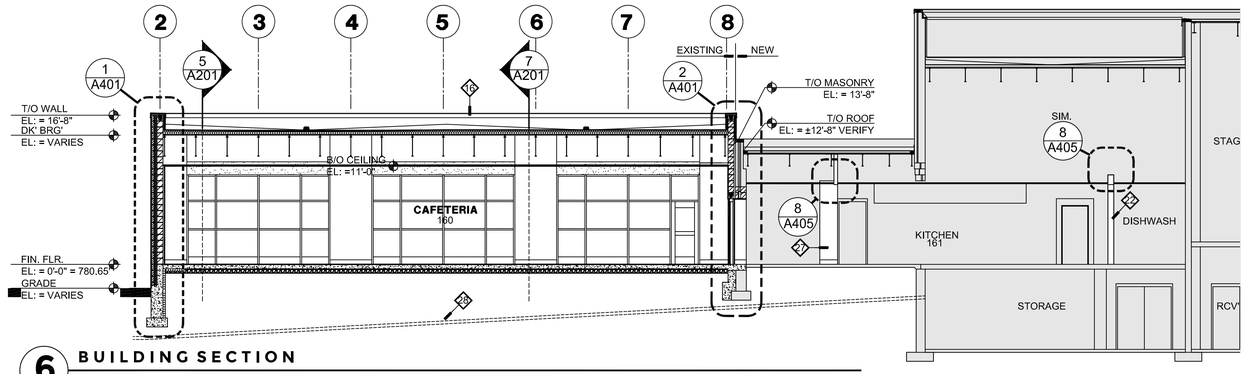
3 NORTH ELEVATION
SCALE: 1/8"=1'-0"



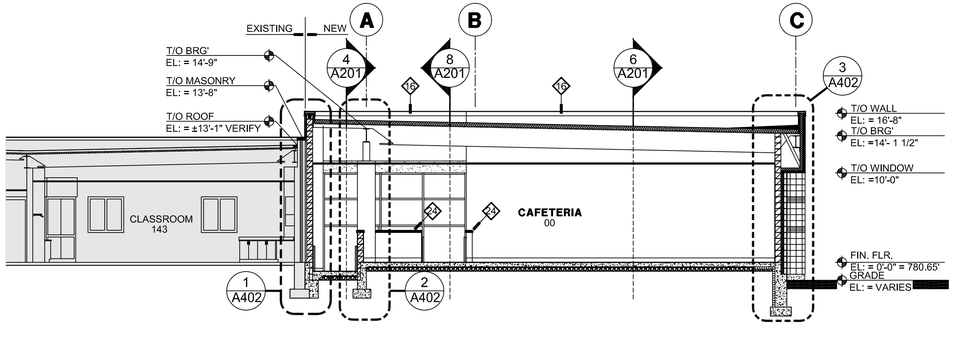
4 BUILDING SECTION
SCALE: 1/8"=1'-0"



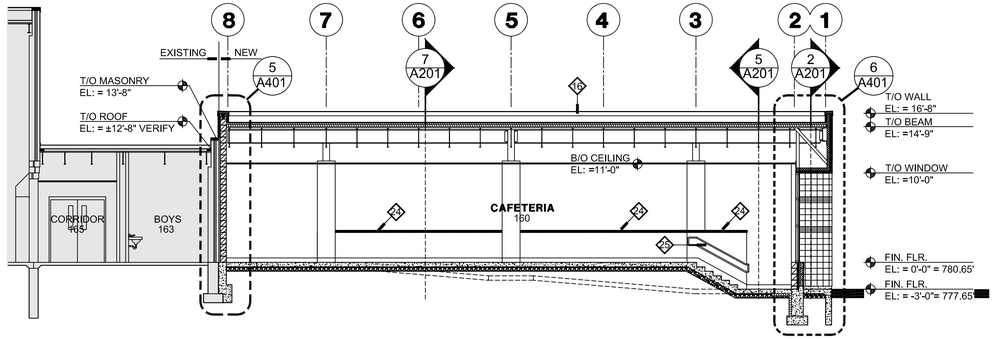
5 BUILDING SECTION
SCALE: 1/8"=1'-0"



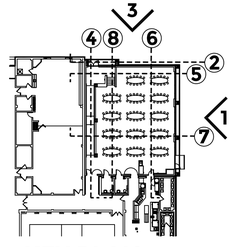
6 BUILDING SECTION
SCALE: 1/8"=1'-0"



7 BUILDING SECTION
SCALE: 1/8"=1'-0"



8 BUILDING SECTION
SCALE: 1/8"=1'-0"



KEY PLAN

CAFETERIA ADDITION AND REMODELING TO

LEWIS LEMON ELEMENTARY SCHOOL

ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION

BUILDING ELEVATIONS AND SECTIONS

PROJECT INFORMATION

Date	April 3, 2017
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RLJA Proj	2015-052

SHEET NUMBER

A201
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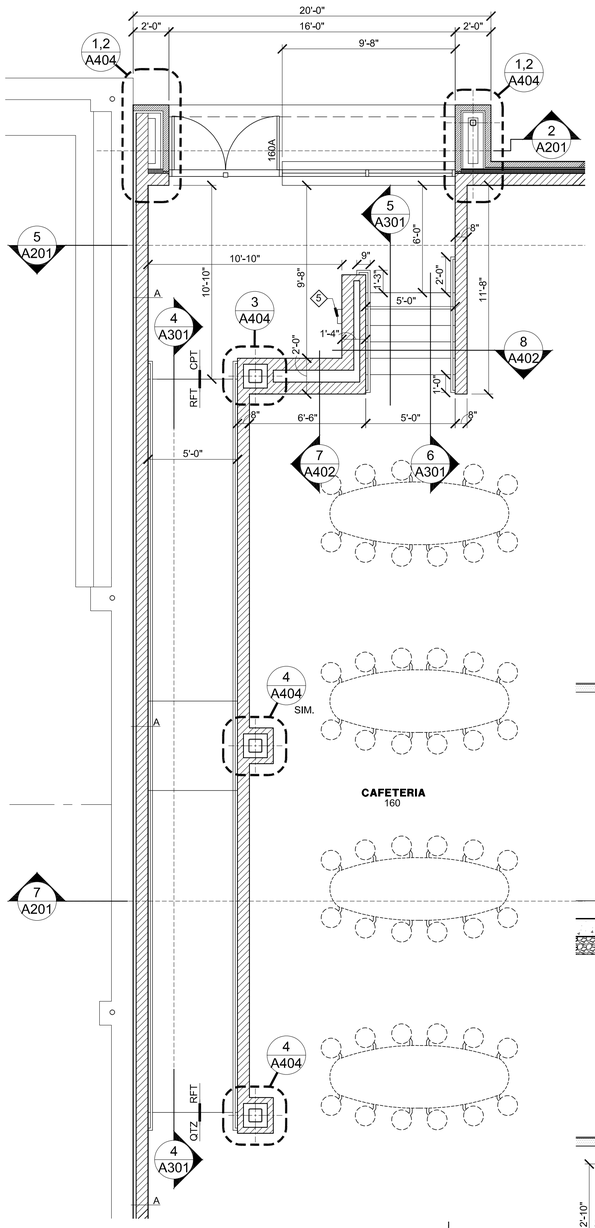
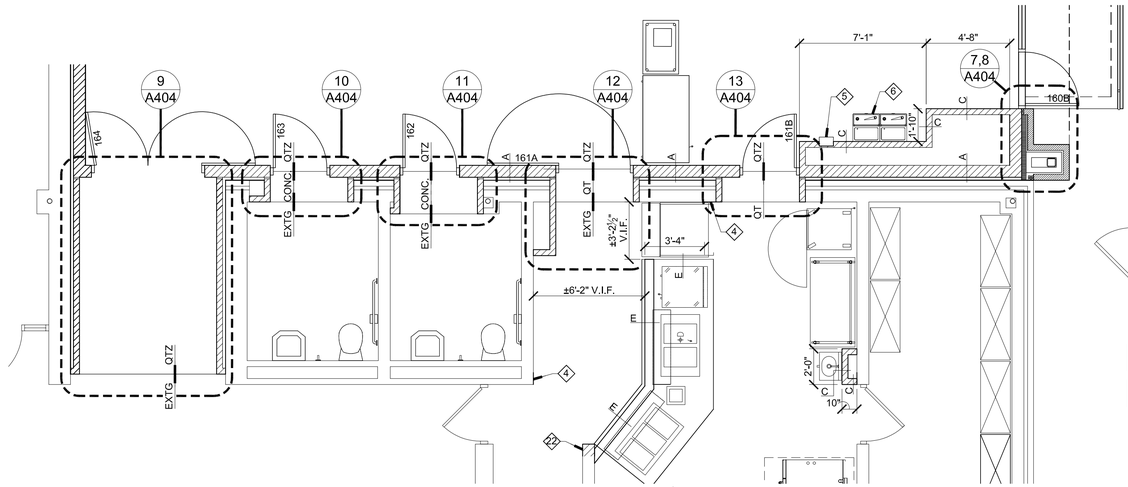
1



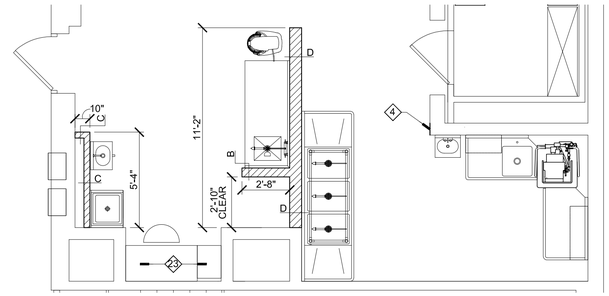
1 LARGE SCALE PLAN

SCALE: 1/4"=1'-0"



2 LARGE SCALE PLAN

SCALE: 1/4"=1'-0"

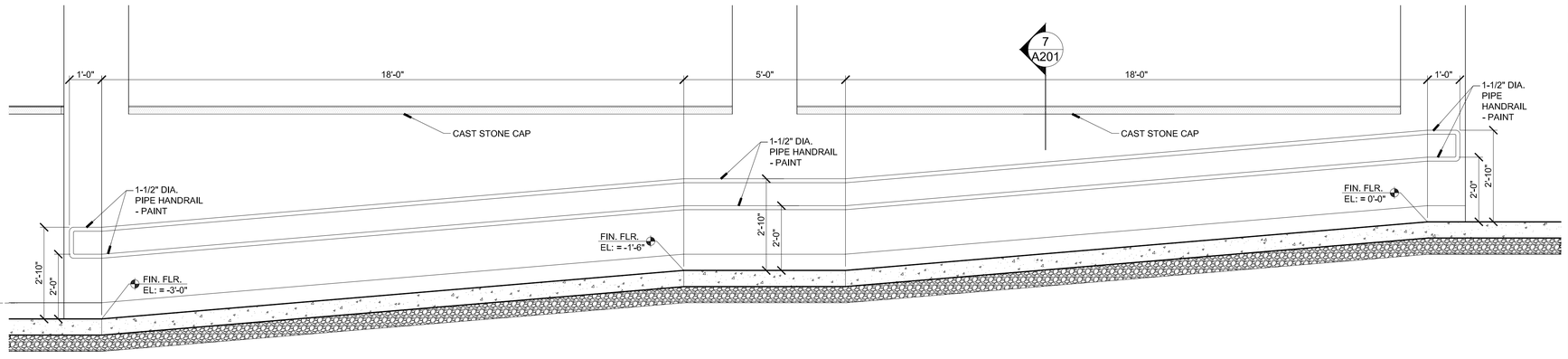


3 LARGE SCALE PLAN

SCALE: 1/4"=1'-0"

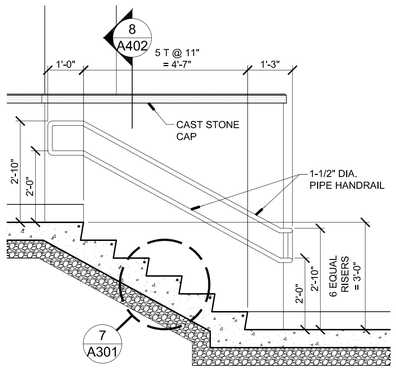
SHEET IDENTIFICATION

- DEMOLITION BOX NOTES - SEE SHEET A101..... 1
- PLAN KEY NOTES - SEE SHEET A102..... 1
- WALL TYPES - SEE SHEET G101..... A



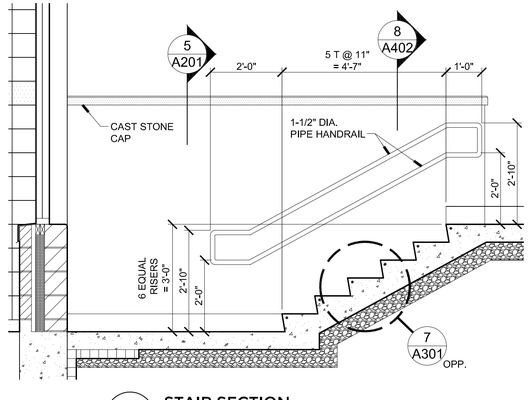
4 RAMP SECTION

SCALE: 1/2"=1'-0"



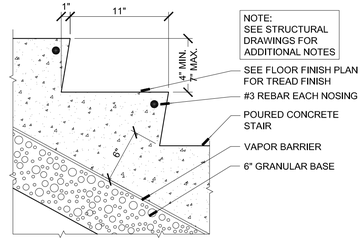
5 STAIR SECTION

SCALE: 1/2"=1'-0"



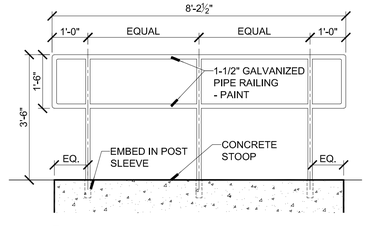
6 STAIR SECTION

SCALE: 1/2"=1'-0"



7 DETAIL

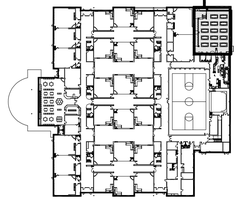
SCALE: 1-1/2"=1'-0"



8 CONCRETE STOOP RAILING

SCALE: 1/2"=1'-0"

CAFETERIA ADDITION



KEY PLAN

CAFETERIA ADDITION AND REMODELING TO

LEWIS LEMON ELEMENTARY SCHOOL

ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION

LARGE SCALE PLANS

PROJECT INFORMATION	
Date	April 3, 2017
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SHEET NUMBER

A301

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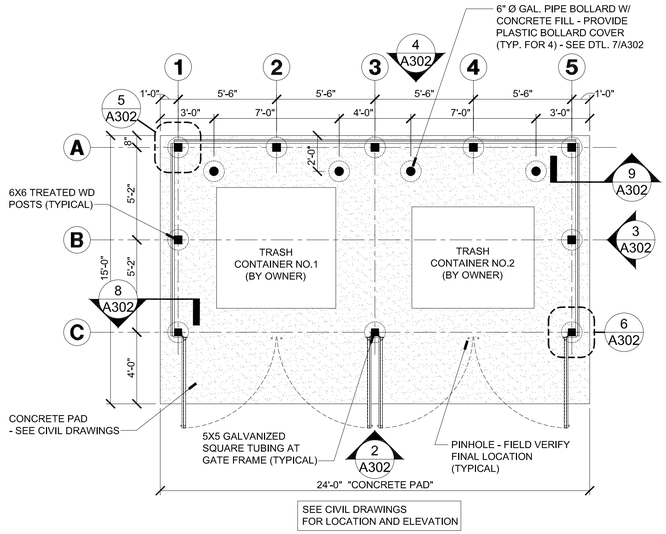
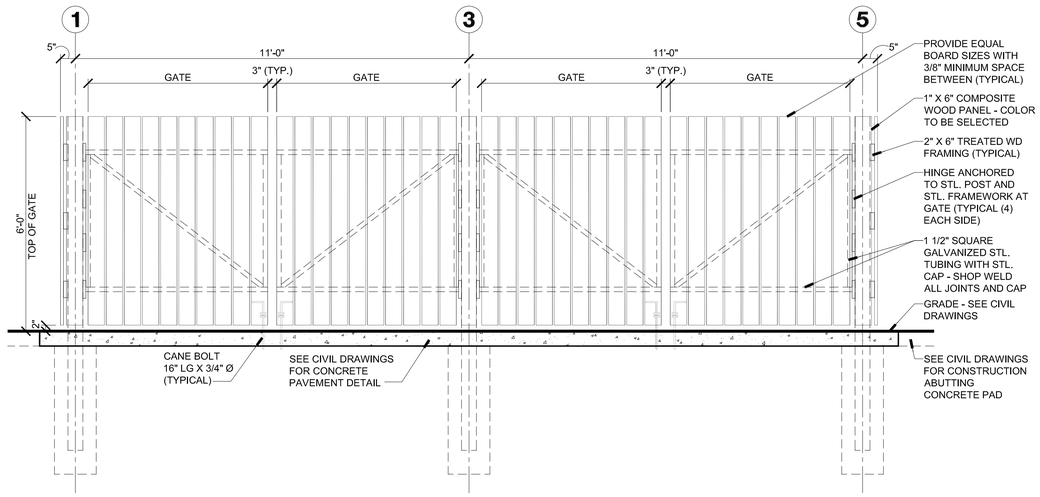
2



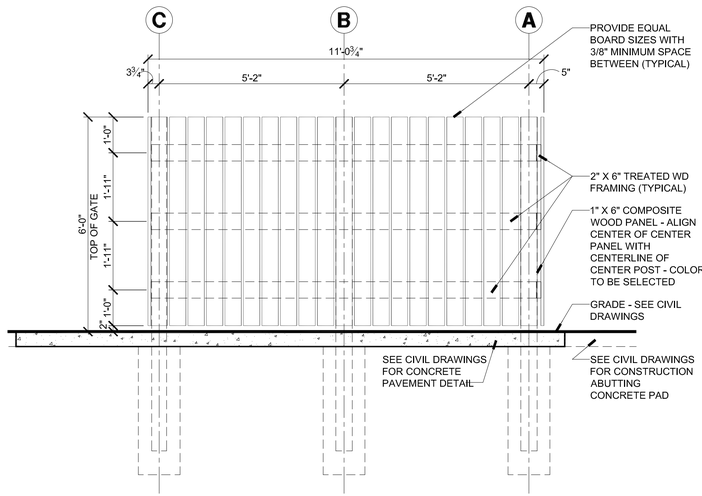
1 TRASH ENCLOSURE PLAN

SCALE: 1/4"=1'-0"



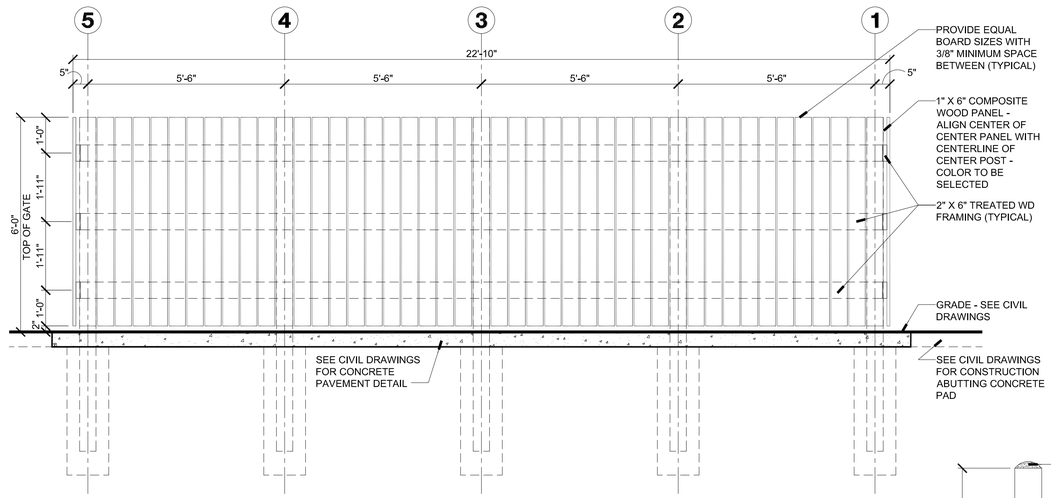
2 TRASH ENCLOSURE - FRONT ELEVATION

SCALE: 1/2"=1'-0"



3 TRASH ENCLOSURE - SIDE ELEVATION

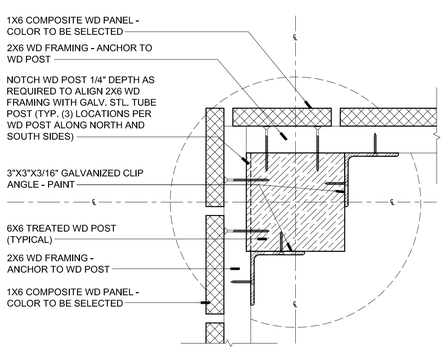
SCALE: 1/2"=1'-0"



4 TRASH ENCLOSURE - REAR ELEVATION

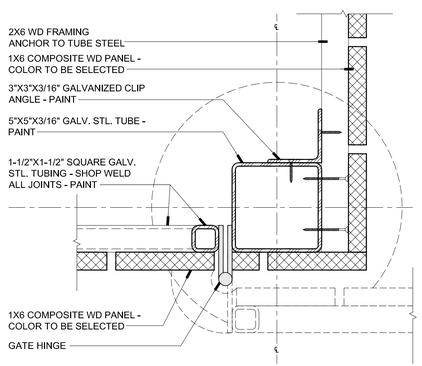
SCALE: 1/2"=1'-0"

NOTES:
- ALL WOOD BLOCKING SHALL BE TREATED LUMBER
- ALL EXPOSED STEEL SHALL BE PAINTED - COLOR TO BE SELECTED
- COMPOSITE WOOD PANEL - COLOR TO BE SELECTED



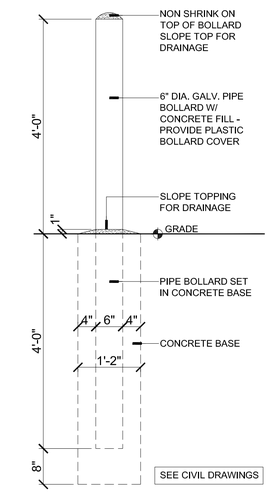
5 TRASH ENCLOSURE - DETAIL

SCALE: 1/2"=1'-0"



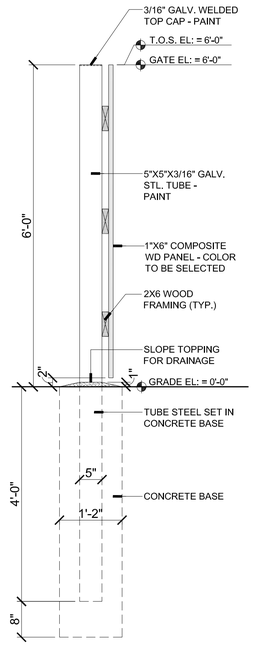
6 TRASH ENCLOSURE - DETAIL

SCALE: 1/2"=1'-0"



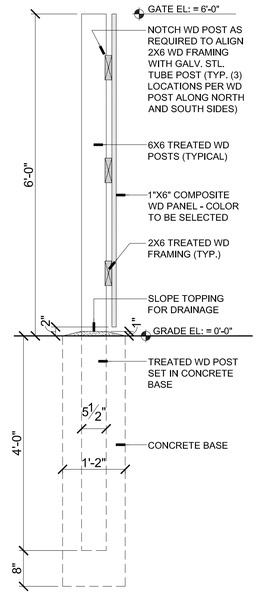
7 PIPE BOLLARD - DETAIL

SCALE: 3/4"=1'-0"



8 MTL GATE POST - DETAIL

SCALE: 3/4"=1'-0"



9 WD FENCE POST - DETAIL

SCALE: 3/4"=1'-0"

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

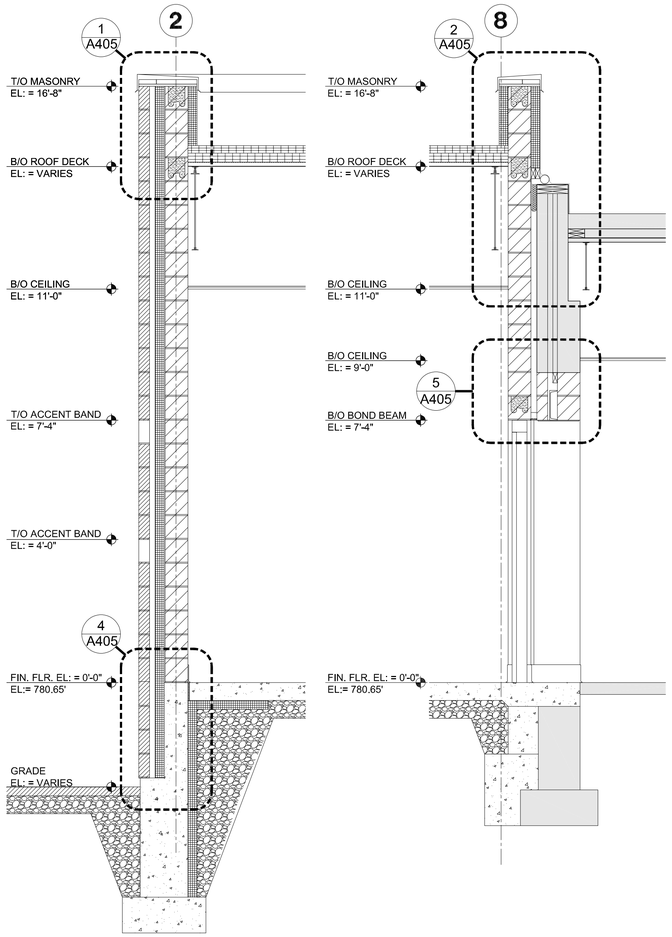
RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
TRASH ENCLOSURE PLANS AND DETAILS

PROJECT INFORMATION

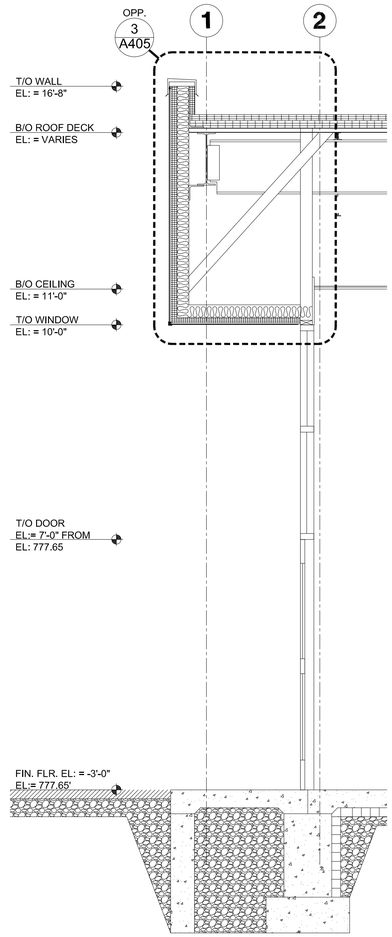
Date	April 3, 2017
Rev. Date	
RLJA Proj	2015-052

SHEET NUMBER
A302
OF
2

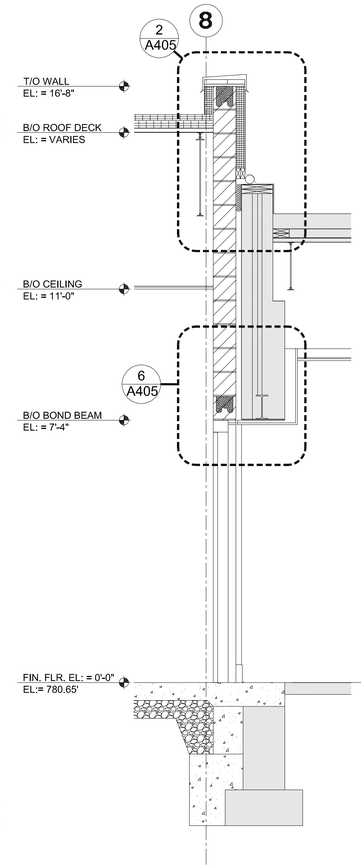


1 **WALL SECTION**
SCALE: 1/2"=1'-0"

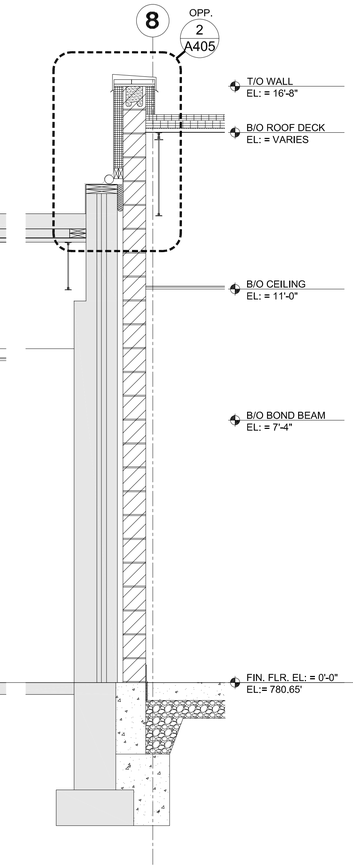
2 **WALL SECTION**
SCALE: 1/2"=1'-0"



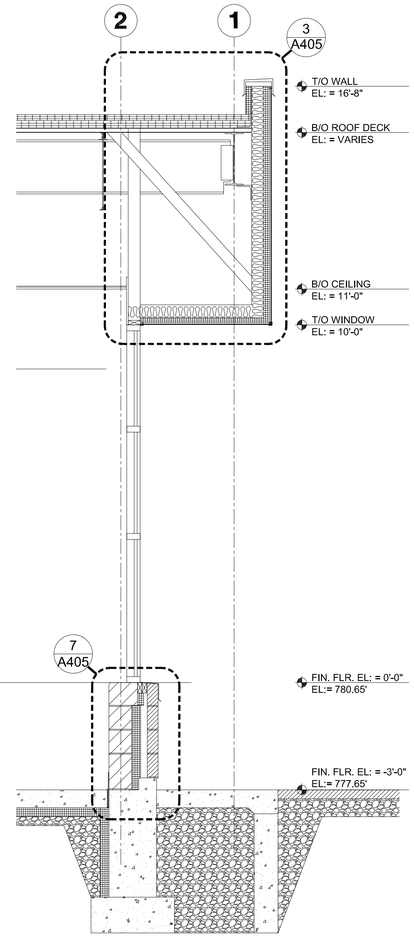
3 **WALL SECTION**
SCALE: 1/2"=1'-0"



4 **WALL SECTION**
SCALE: 1/2"=1'-0"



5 **WALL SECTION**
SCALE: 1/2"=1'-0"



6 **WALL SECTION**
SCALE: 1/2"=1'-0"

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON
ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
WALL SECTIONS

PROJECT INFORMATION

Date	April 3, 2017
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A401
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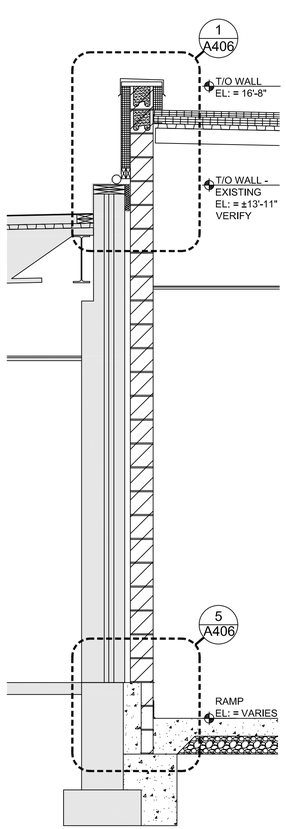
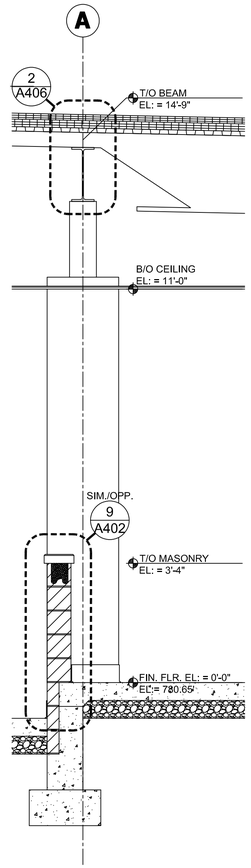
6



1 WALL SECTION
SCALE: 1/2"=1'-0"



2 WALL SECTION
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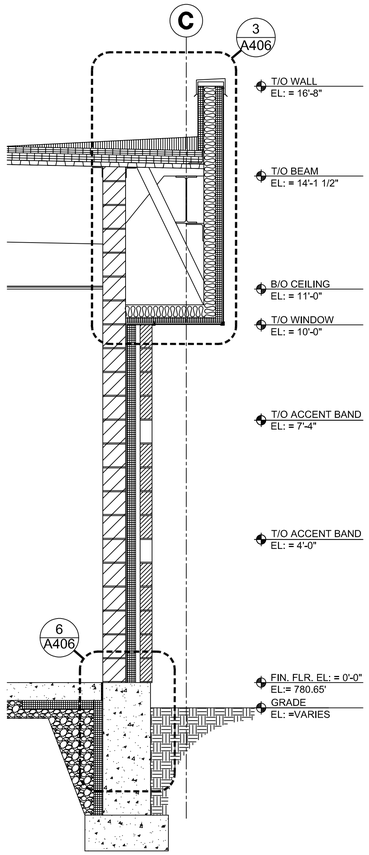

3 WALL SECTION
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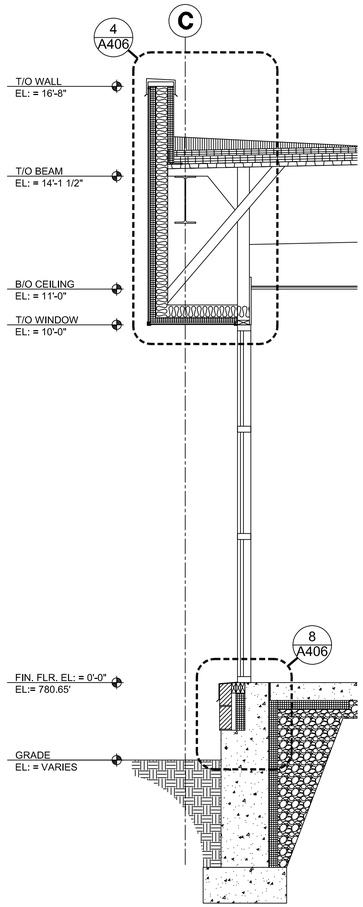
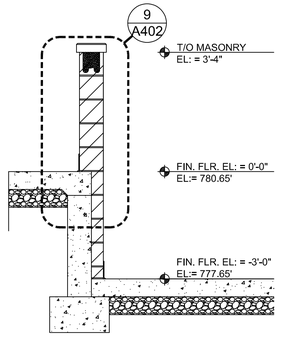
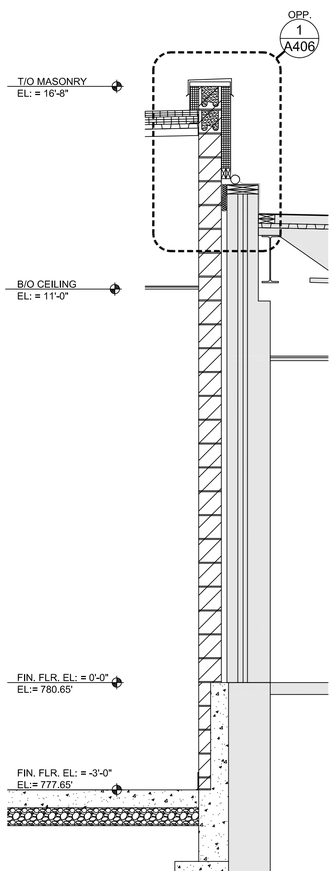


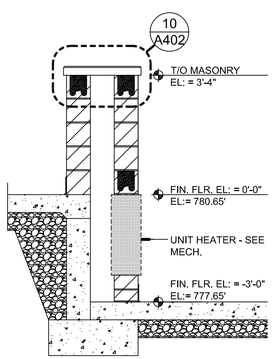
4 WALL SECTION
SCALE: 1/2"=1'-0"



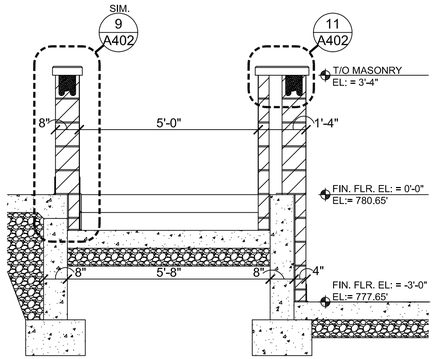
5 WALL SECTION
SCALE: 1/2"=1'-0"



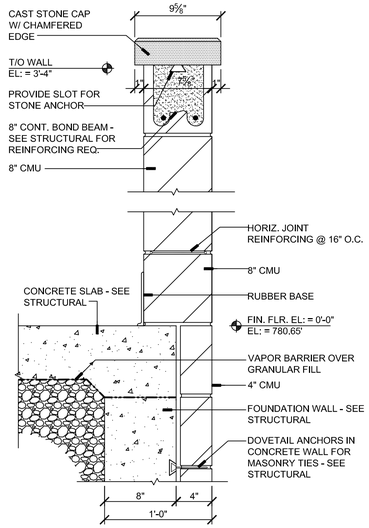
6 WALL SECTION
SCALE: 1/2"=1'-0"



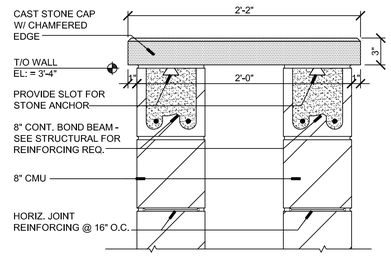
7 WALL SECTION
SCALE: 1/2"=1'-0"



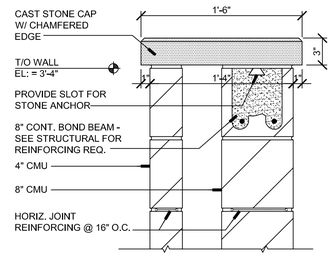
8 WALL SECTION
SCALE: 1/2"=1'-0"



9 DETAIL
SCALE: 1 1/2"=1'-0"



10 DETAIL
SCALE: 1 1/2"=1'-0"



11 DETAIL
SCALE: 1 1/2"=1'-0"

CAFETERIA ADDITION AND REMODELING TO

LEWIS LEMON ELEMENTARY SCHOOL

ROCKFORD, ILLINOIS

RICHARD L. JOHNSON
ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION

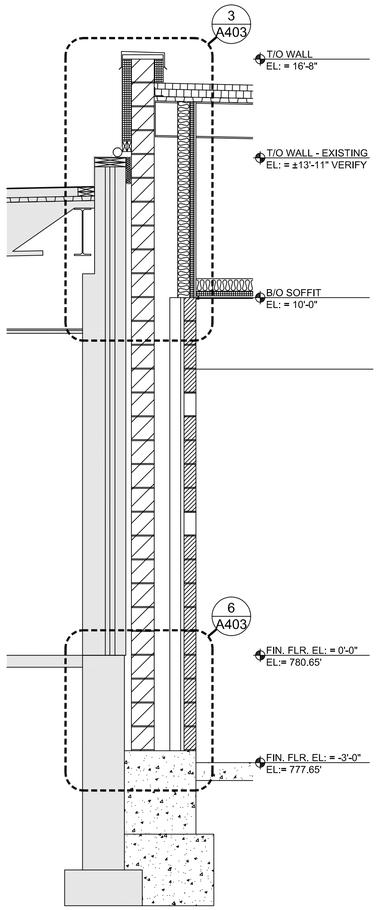
WALL SECTIONS AND DETAILS

PROJECT INFORMATION

Date	April 3, 2017
Rev. Date	
RLJA Proj	2015-052

SHEET NUMBER

A402
OF
6



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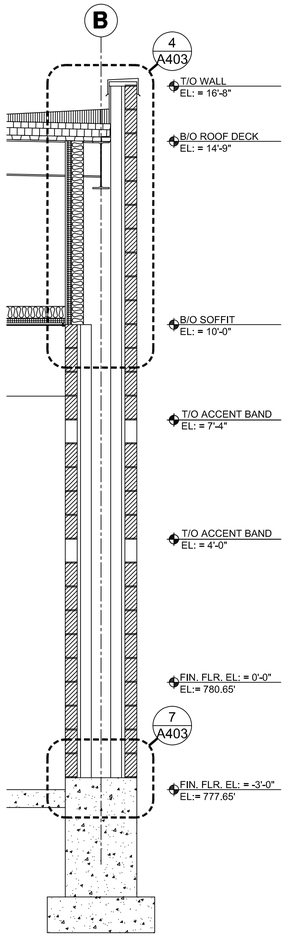

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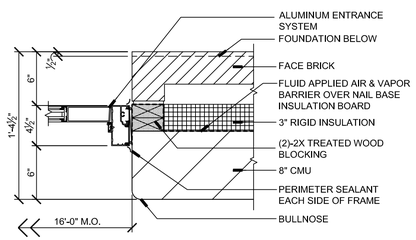
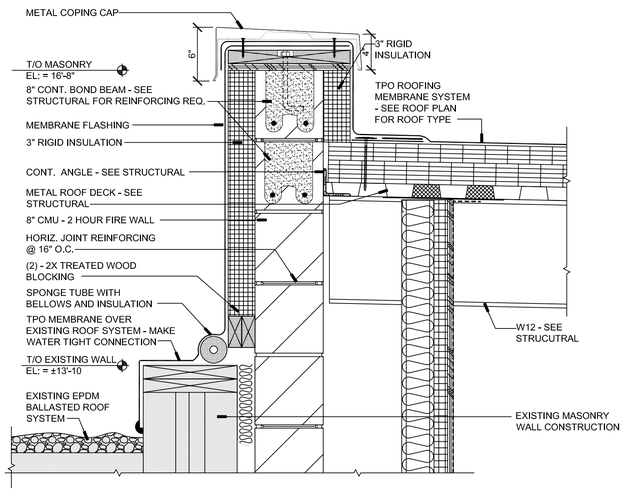
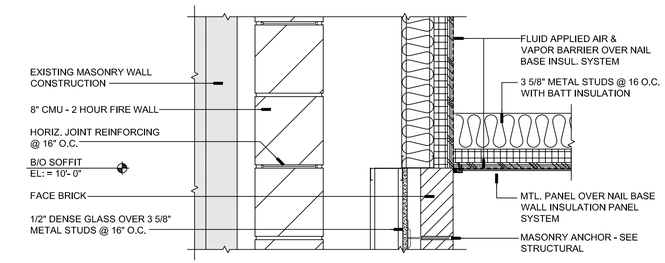
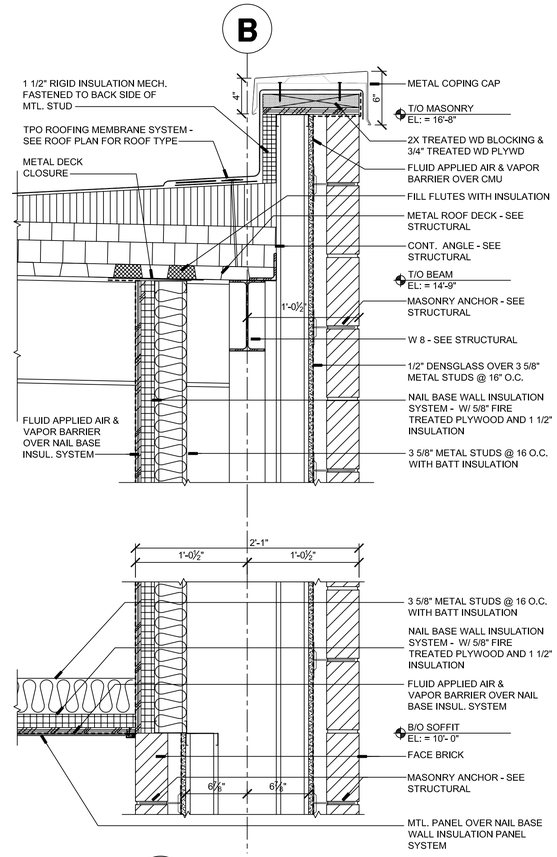


5 DETAIL
SCALE: 1/2"=1'-0"

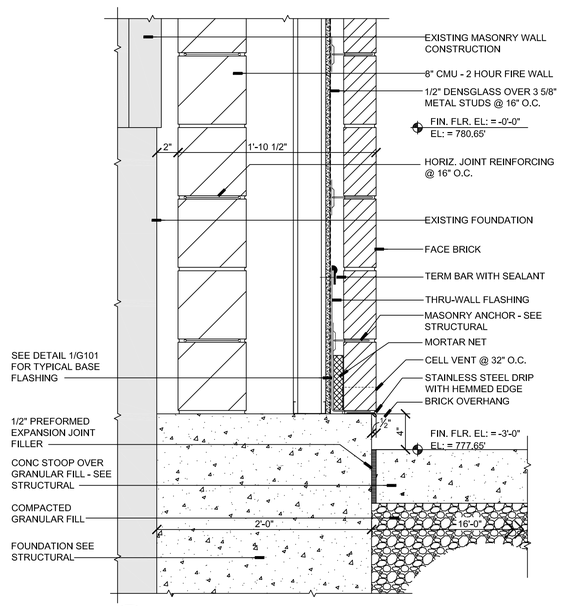




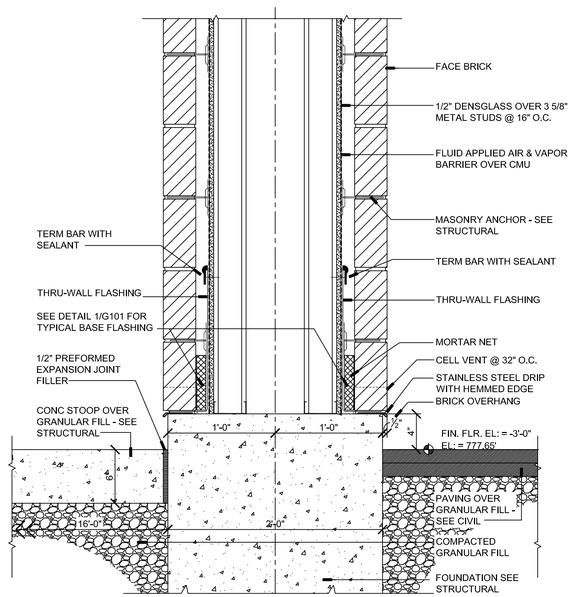
3 DETAIL
SCALE: 11/2"=1'-0"



4 DETAIL
SCALE: 11/2"=1'-0"



6 DETAIL
SCALE: 11/2"=1'-0"



7 DETAIL
SCALE: 11/2"=1'-0"

CAFETERIA ADDITION AND REMODELING TO
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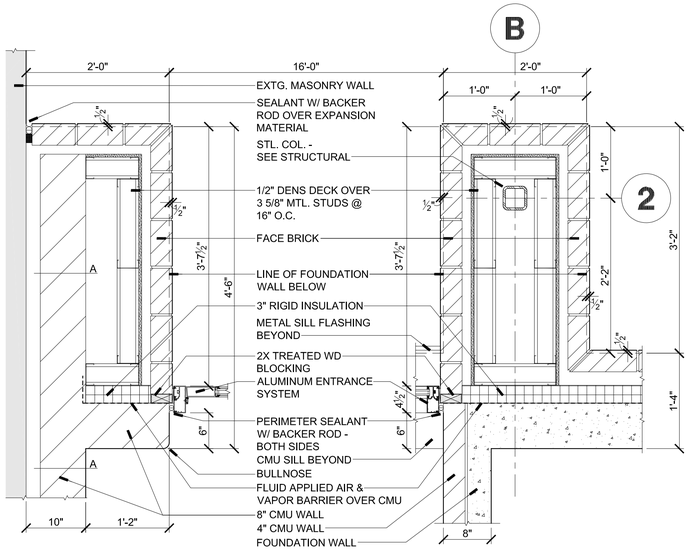
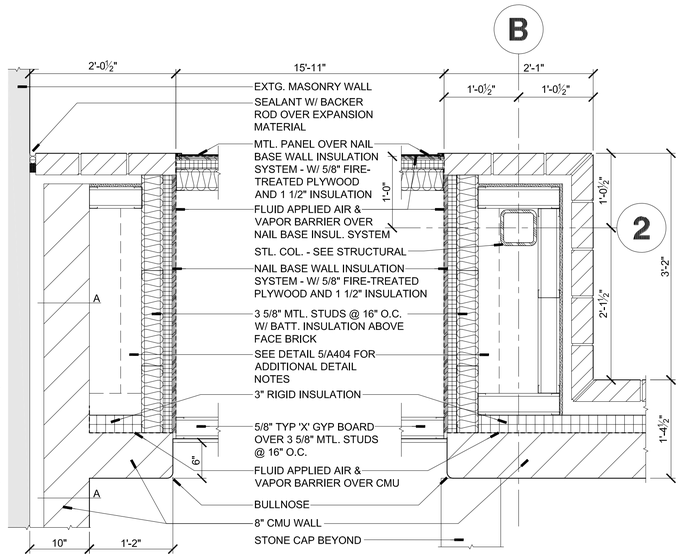
6



1 DETAIL
SCALE: 1"=1'-0"



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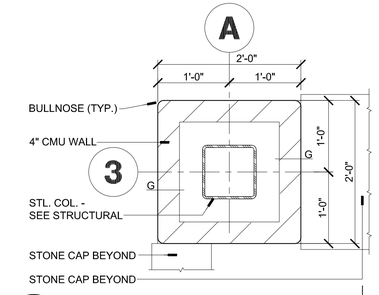
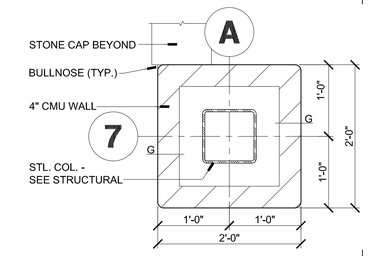
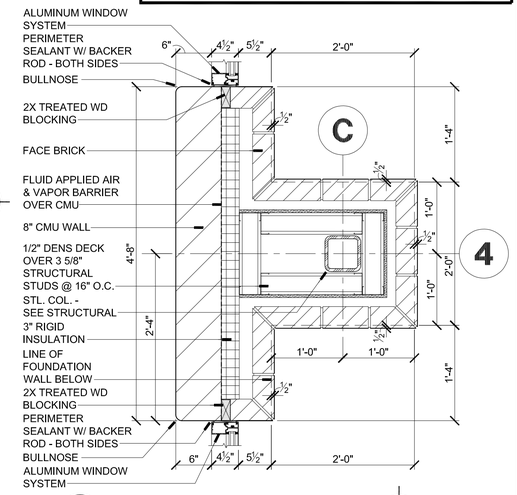
SCALE: 1"=1'-0"



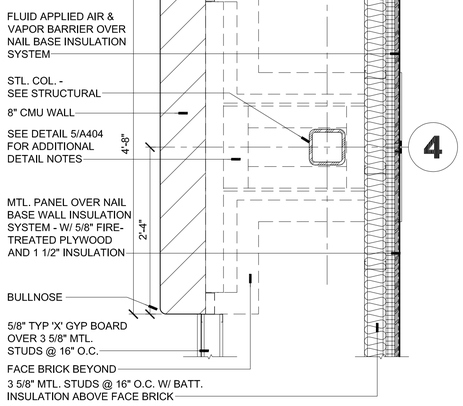
3 DETAIL - CUT ABOVE HALF WALL
SCALE: 1"=1'-0"



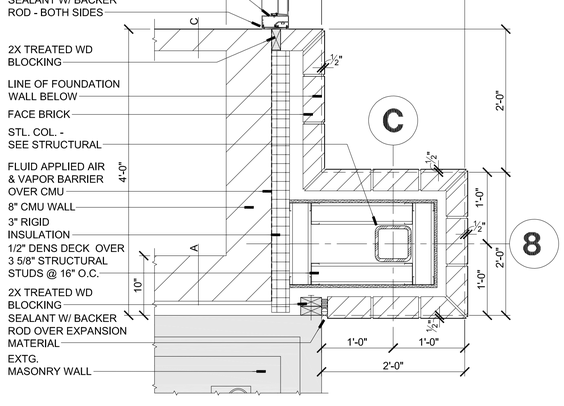
4 DETAIL - CUT ABOVE HALF WALL
SCALE: 1"=1'-0"



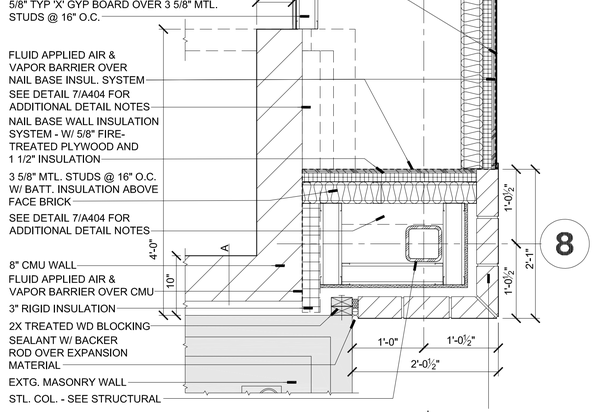
5 DETAIL
SCALE: 1"=1'-0"



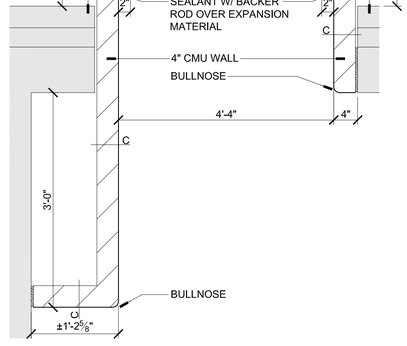
6 DETAIL
SCALE: 1"=1'-0"



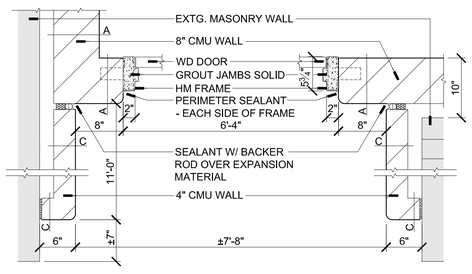
7 DETAIL
SCALE: 1"=1'-0"



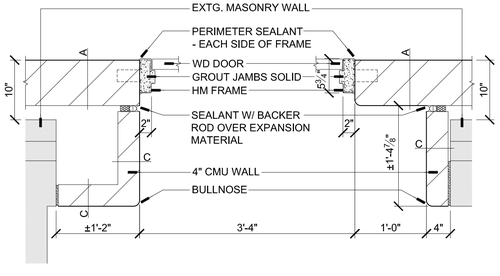
8 DETAIL
SCALE: 1"=1'-0"



12 DETAIL
SCALE: 1"=1'-0"



9 DETAIL
SCALE: 1"=1'-0"



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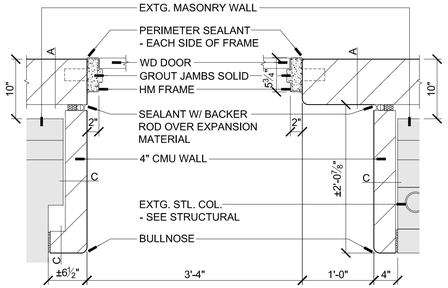
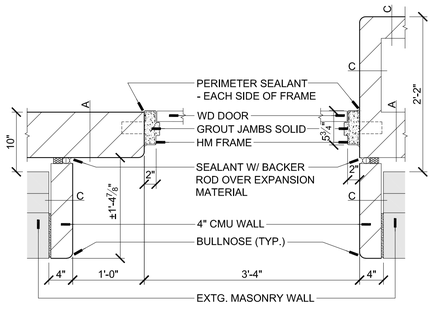
SCALE: 1"=1'-0"



11 DETAIL
SCALE: 1"=1'-0"



13 DETAIL
SCALE: 1"=1'-0"

SHEET IDENTIFICATION

- DEMOLITION BOX NOTES - SEE SHEET A101..... 1
- PLAN KEY NOTES - SEE SHEET A102..... 1
- WALL TYPES - SEE SHEET G101..... A

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Date	April 3, 2017
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A404
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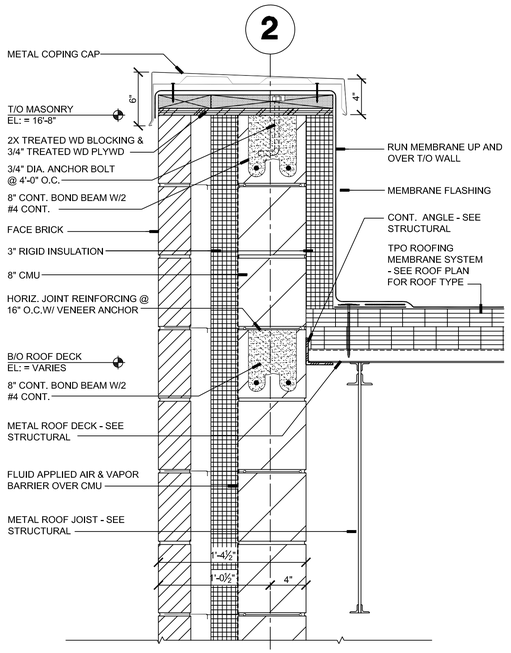
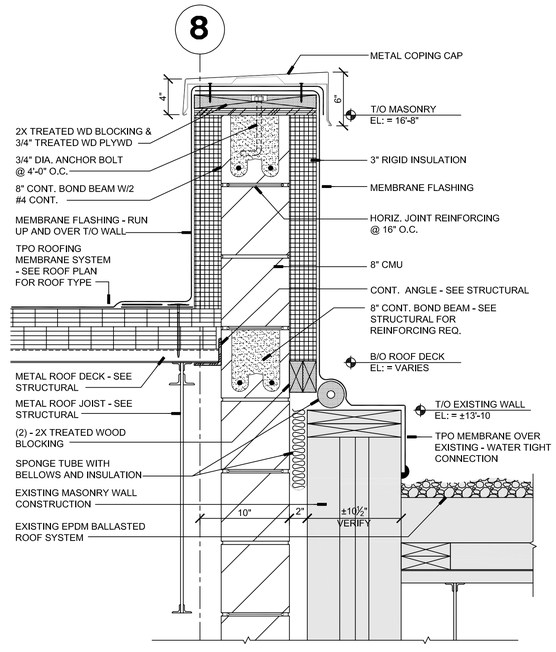


1 DETAIL
SCALE: 11/2"=1'-0"



2 DETAIL
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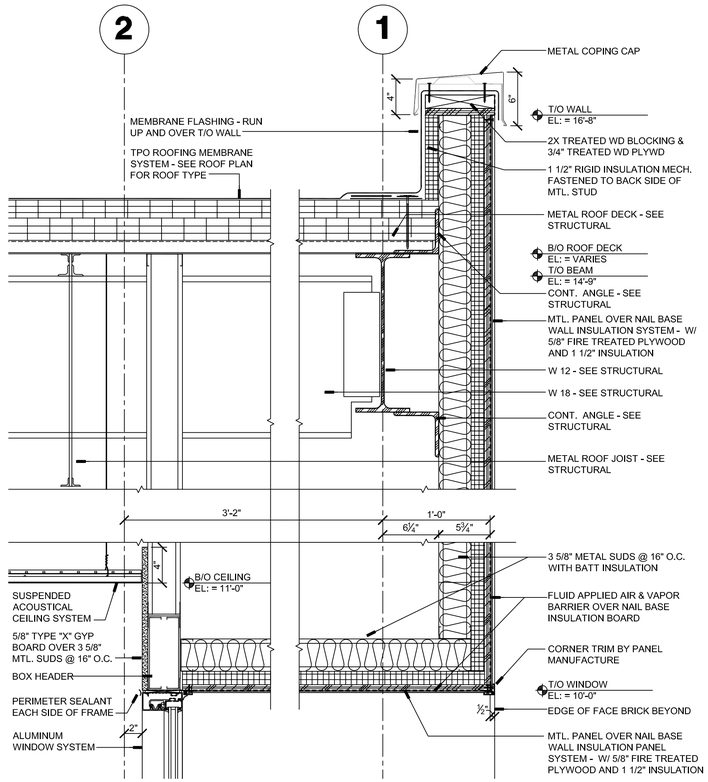
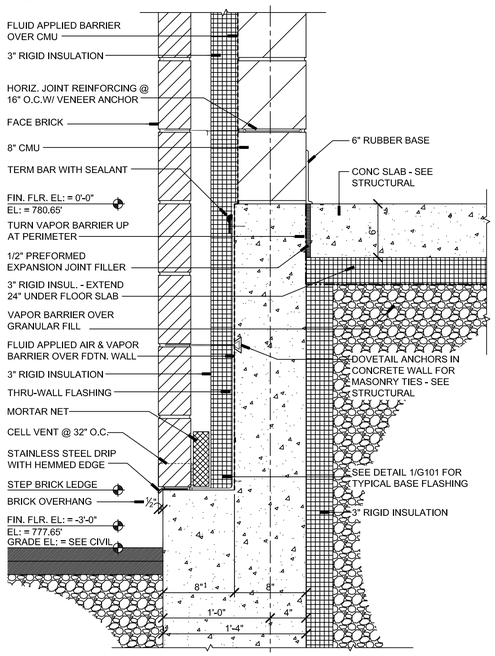
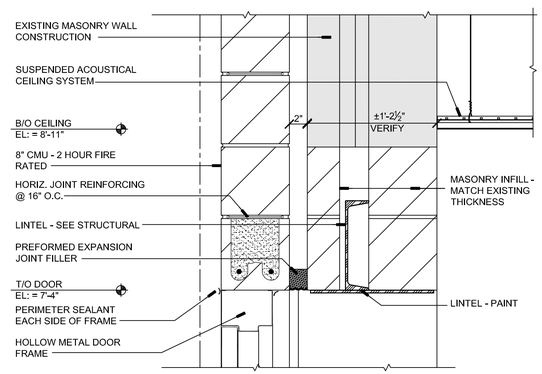


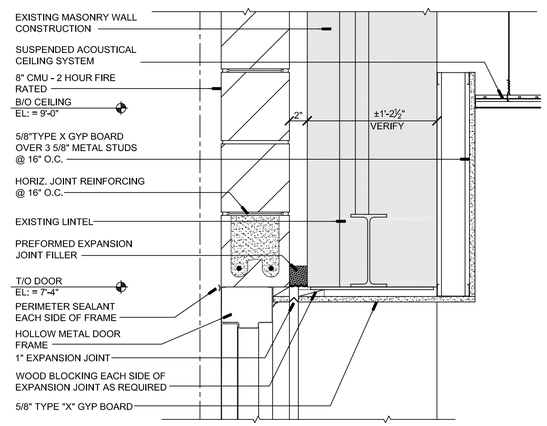
3 DETAIL
SCALE: 11/2"=1'-0"



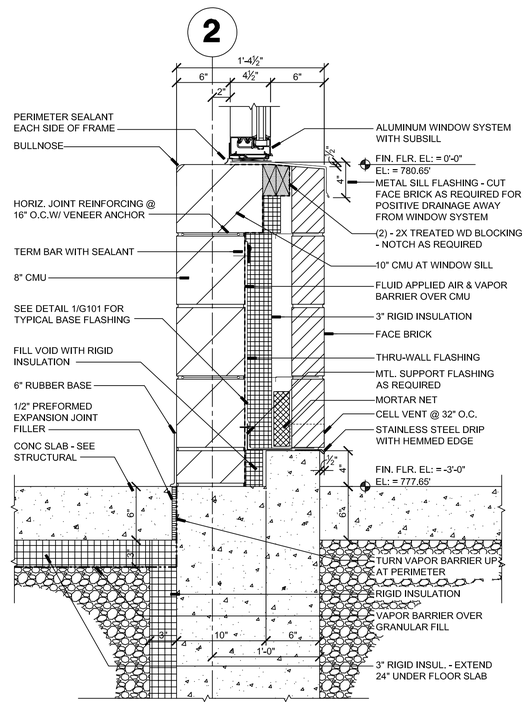
4 DETAIL
SCALE: 11/2"=1'-0"



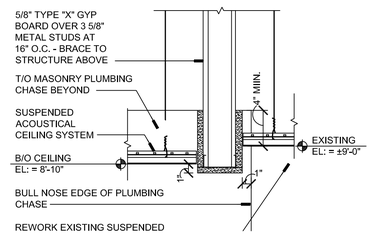
5 DETAIL
SCALE: 11/2"=1'-0"



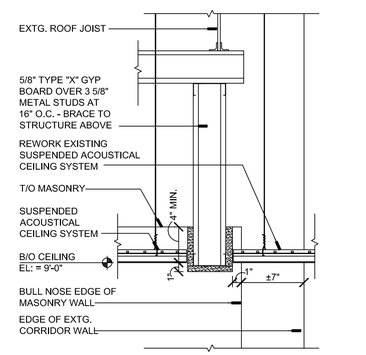
6 DETAIL
SCALE: 11/2"=1'-0"



7 DETAIL
SCALE: 11/2"=1'-0"



8 DETAIL
SCALE: 11/2"=1'-0"



9 DETAIL
SCALE: 11/2"=1'-0"

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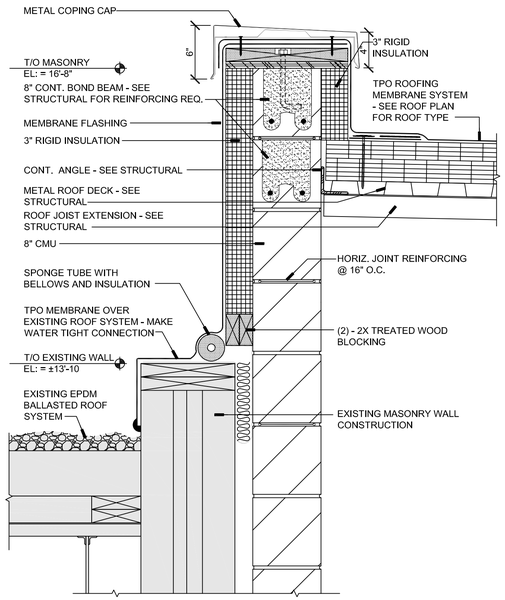
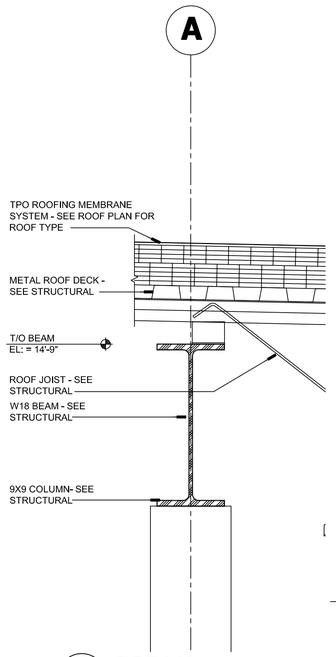


1 DETAIL
SCALE: 11/2"=1'-0"



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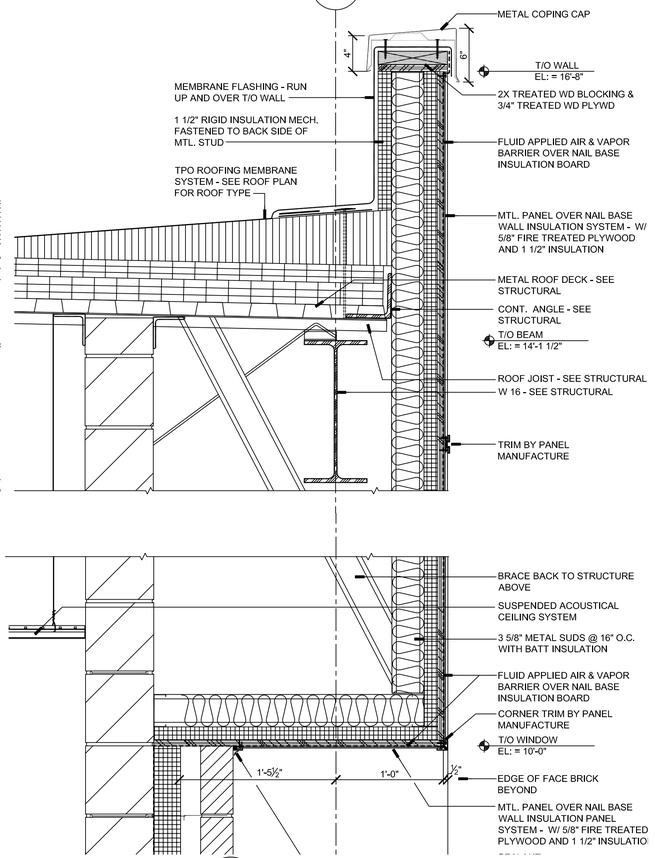
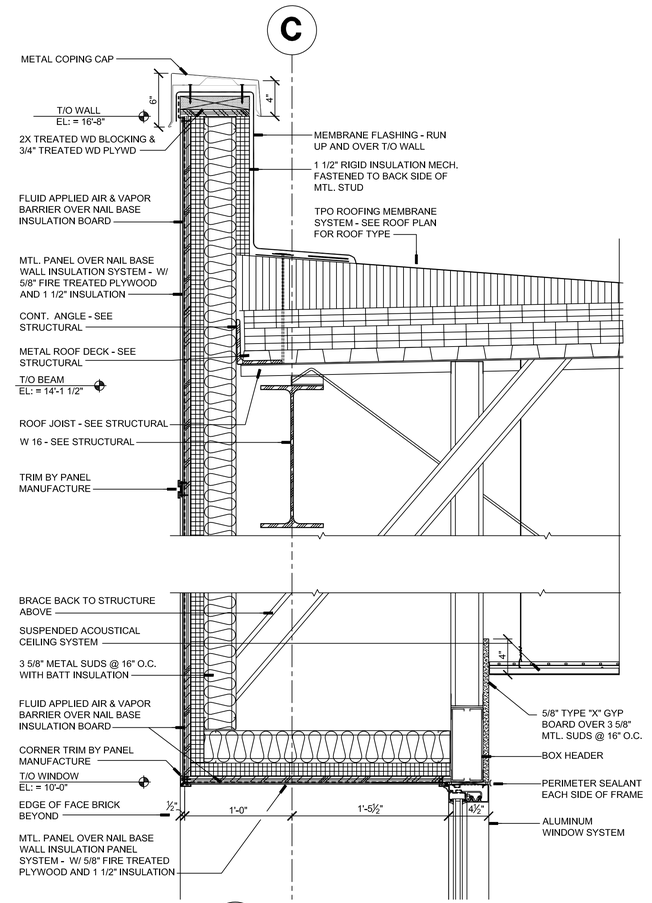
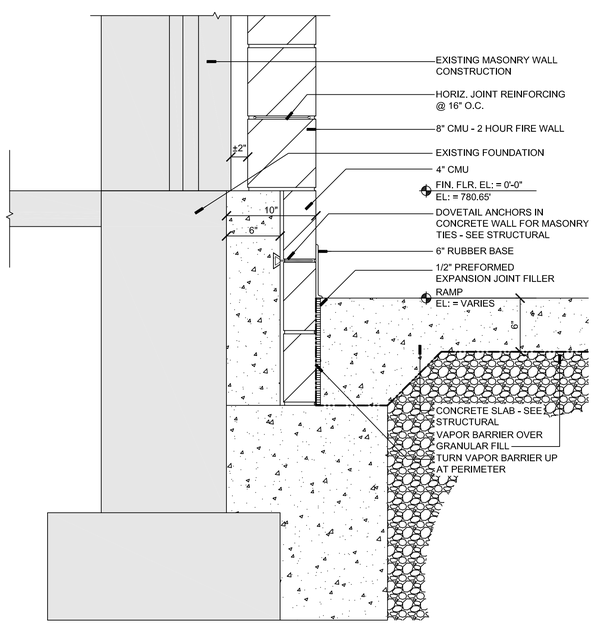


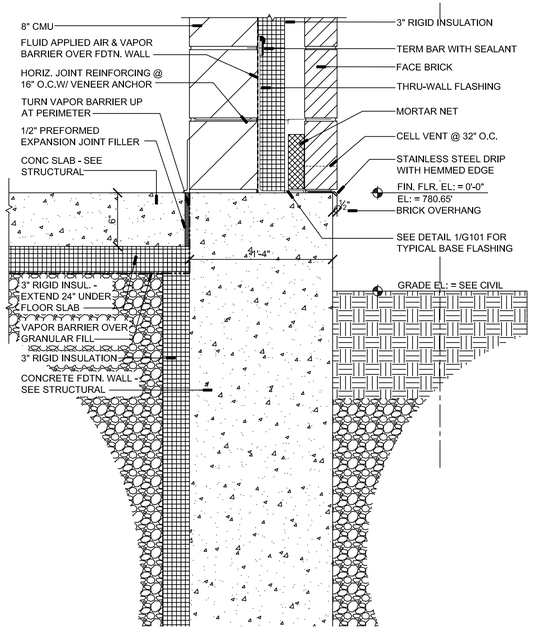
3 DETAIL
SCALE: 11/2"=1'-0"



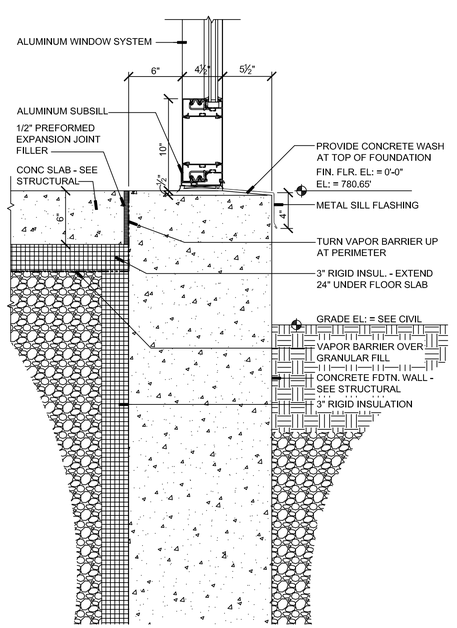
4 DETAIL
SCALE: 11/2"=1'-0"



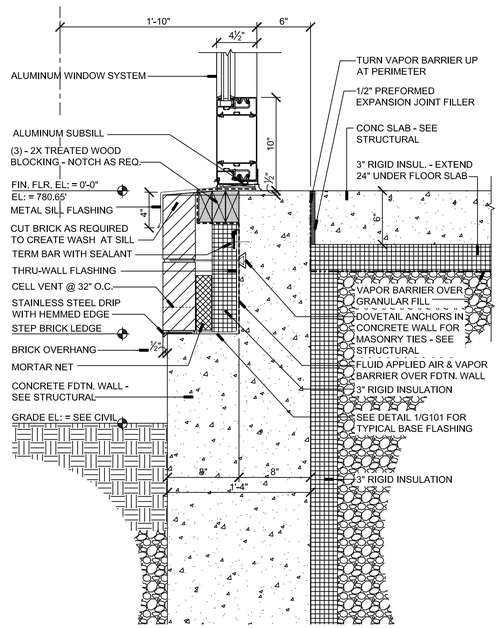
5 DETAIL
SCALE: 11/2"=1'-0"



6 DETAIL
SCALE: 11/2"=1'-0"



7 DETAIL
SCALE: 11/2"=1'-0"



8 DETAIL
SCALE: 11/2"=1'-0"

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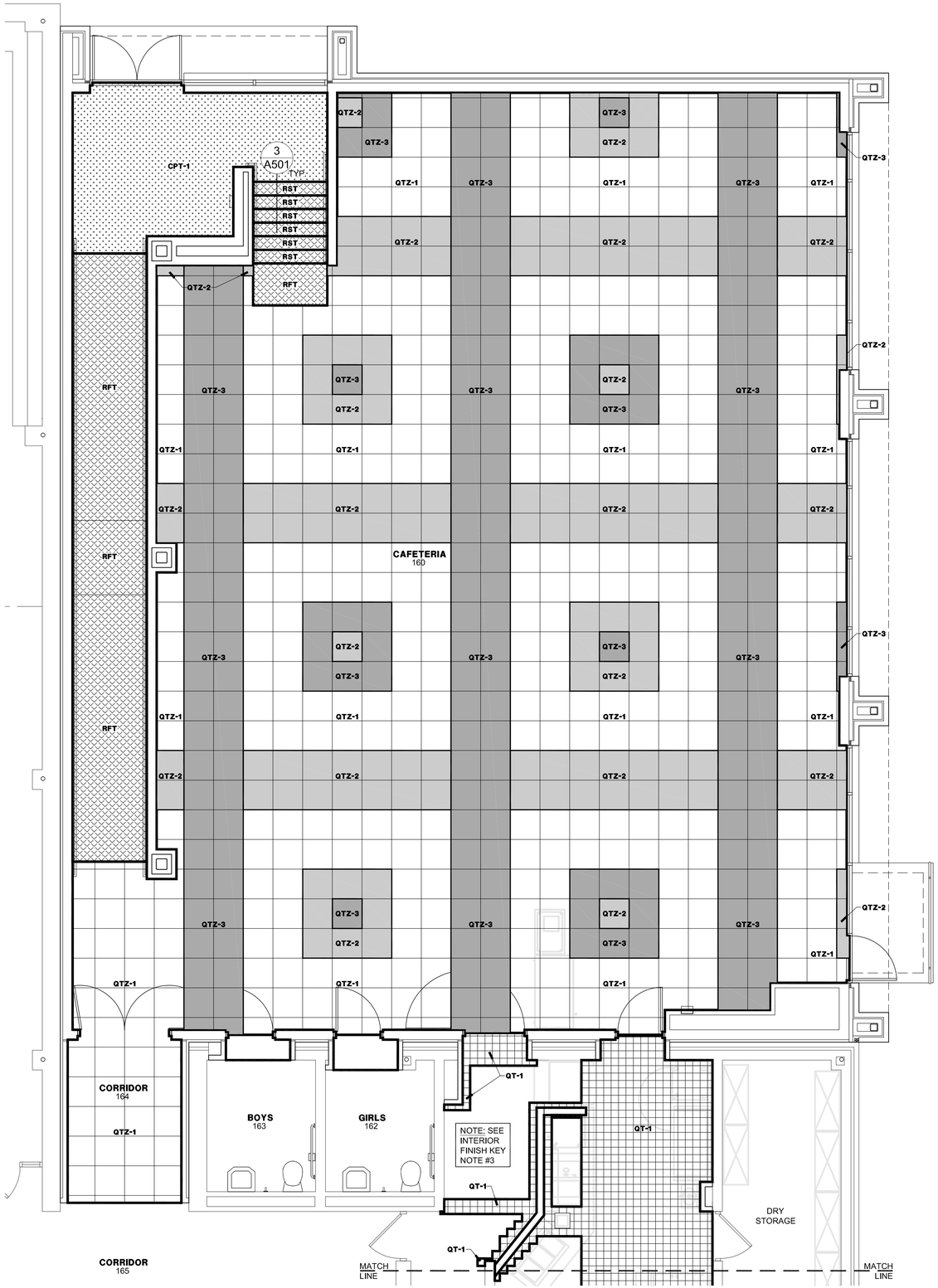


1 FLOOR FINISH PATTERN PLAN
SCALE: 1/4"=1'-0"

INTERIOR FINISH KEY

1. PROVIDE TRANSITION STRIPS AT ALL LOCATIONS OF TRANSITION BETWEEN TWO FLOORING TYPES. SEE FLOORING SPECIFICATIONS 096519 RESILIENT FLOORING AND 096813 CARPET FOR SPECIFIC TYPES.
2. FLOORING TYPES AND FINISHES LISTED BELOW ARE FOR REFERENCE. SEE SPECIFICATION SECTIONS FOR FLOOR PREP, ADHESIVES AND INSTALLATION GUIDELINES.
3. LOCATIONS NOTATED ON PLANS FOR NEW QUARRY TILE AND BASE ARE FOR REFERENCE ONLY. CONTRACTOR TO VERIFY QUANTITIES AND LOCATIONS REQUIRED IN FIELD FOR NEW WORK.

CPT-1 WALK-OFF CARPET TILE, TANDUS, ABRASIVE ACTION 02578
COLOR: WINTER GREY 19103
SEE SPECIFICATIONS

QTZ- 1 QUARTZ TILE, UPOFLOOR. FIELD TILE 9321
QTZ -2 QUARTZ TILE, UPOFLOOR. ACCENT TILE 9324
QTZ -3 QUARTZ TILE, UPOFLOOR, ACCENT TILE 6352
SEE SPECIFICATIONS

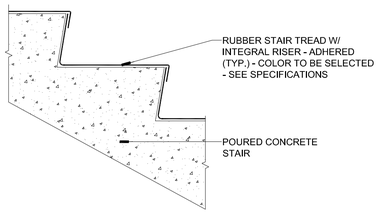
RFT RUBBER FLOOR TILE, JOHNSONITE HAMMERED TEXTURE.
COLOR: TO BE SELECTED
SEE SPECIFICATIONS

RST RUBBER STAIR TREADS, JOHNSONITE HAMMERED TEXTURE.
COLOR: TO BE SELECTED
PROVIDE RUBBER STAIR TREAD AT TOP LANDING OF STAIR - MATCH ADJACENT STAIR TREAD
SEE SPECIFICATIONS

QT-1 QUARRY TILE, 6" X 6" TILE AND BASE - MATCH EXISTING
COLOR: TO BE SELECTED
SEE SPECIFICATIONS

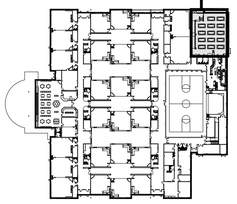
RUBBER BASE 6"
COLOR: TO BE SELECTED
SEE SPECIFICATIONS

PAINT
COLORS: TO BE SELECTED
PLEASE NOTIFY INTERIOR DESIGNER (2) WEEKS PRIOR TO BEGINNING PAINT, FOR PAINT PLAN TO BE PROVIDED
SEE SPECIFICATIONS

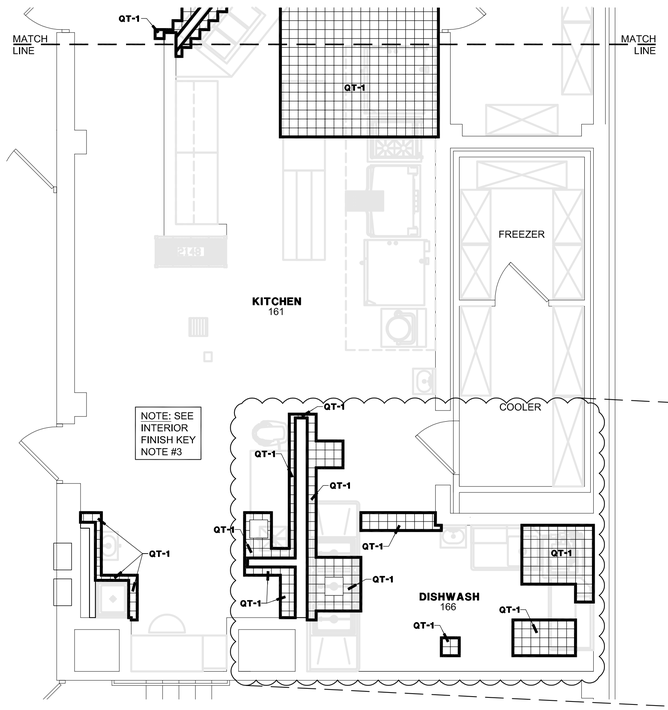


3 STAIR TREAD/RISER DETAIL (TYP.)
SCALE: 1-1/2"=1'-0"

CAFETERIA ADDITION

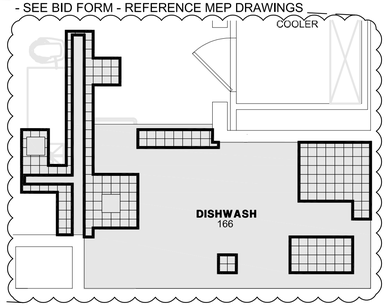


KEY PLAN



2 FLOOR FINISH PATTERN PLAN (CONT'D)
SCALE: 1/4"=1'-0"

NOTE: FOR INFORMATIONAL PURPOSES ONLY
PROVIDE COST BREAKOUT UNDER BASE BID FOR RENOVATION WORK TO SHADED AREA, INCLUDING ALL ASSOCIATED TRADES, EXCLUDING KITCHEN EQUIPMENT - SEE BID FORM - REFERENCE MEP DRAWINGS



4 PARTIAL FIRST FLOOR
SCALE: 1/4"=1'-0" COST BREAKOUT PLAN

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LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

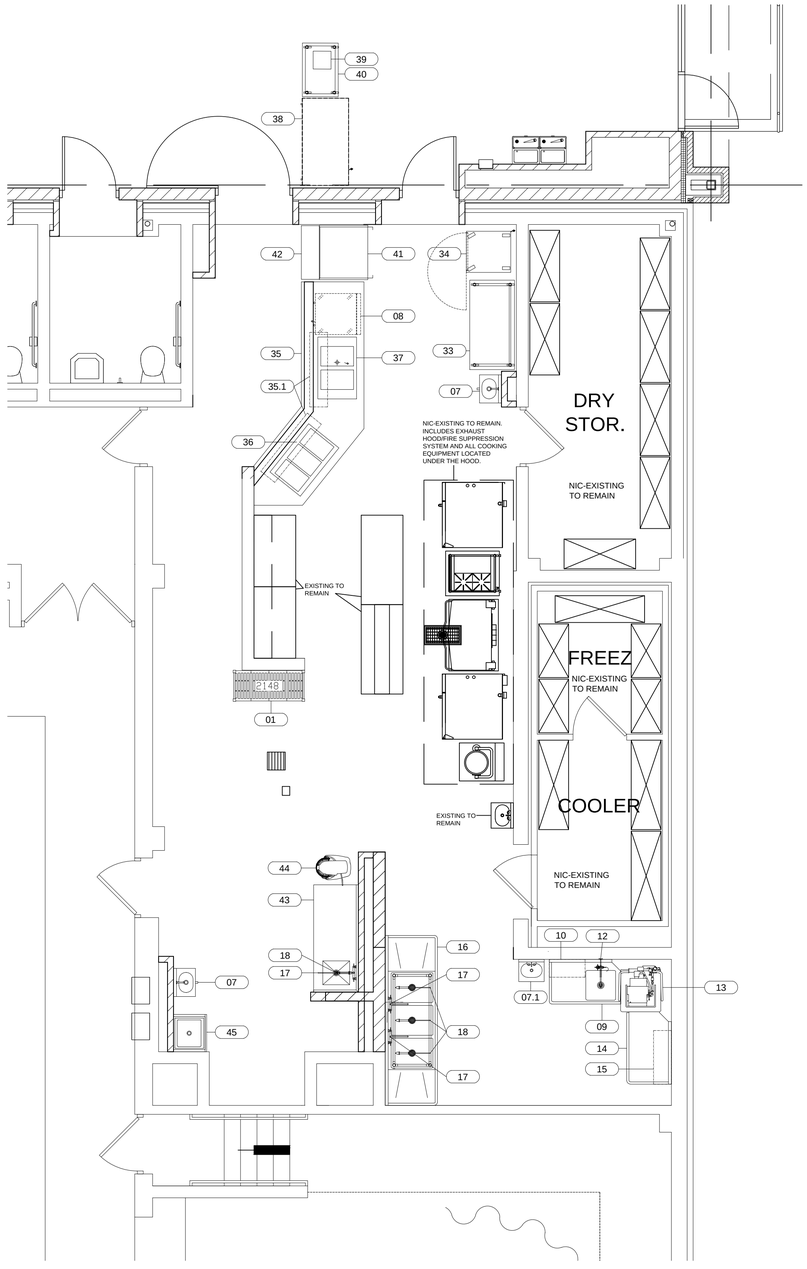
RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
FLOOR FINISH PLAN AND NOTES

PROJECT INFORMATION
Date: April 3, 2017
Rev. Date:
RLJA Proj: 2015-052

SHEET NUMBER
A501
OF
1

S2O
S2O Consultants, Inc.
530 N Wood #C
Chicago, IL 60622
224-717-1999



EQUIPMENT SCHEDULE

ITEM NO	QTY	EQUIPMENT CATEGORY	EQUIPMENT REMARKS	ITEM NO
01	1	SHELVING UNIT	PROVIDED BY RPS, INSTALLED BY GC	01
07	2	SINK, HAND, WALL MOUNT	PROVIDED BY RPS, INSTALLED BY GC	07
07.1	1	HAND SINK	EXISTING-RELOCATED	07.1
08	1	PREP REFRIGERATOR	PROVIDED BY RPS, INSTALLED BY GC	08
09	1	SOILED DISHTABLE, STRAIGHT		09
10	1	SHELF, WALL MOUNT	PROVIDED BY RPS, INSTALLED BY GC	10
12	1	PRE-RINSE FAUCET, WALL MOUNT	PROVIDED BY RPS, INSTALLED BY GC	12
13	1	WAREWASHER, DOOR TYPE, HIGH TEMP	CORNER UNIT, PROVIDED BY RPS, INSTALLED BY GC	13
14	1	DISHTABLE, STRAIGHT	PROVIDED BY RPS, INSTALLED BY GC	14
15	1	SHELF, WALL MOUNT	PROVIDED BY RPS, INSTALLED BY GC	15
16	1	SINK, SCULLERY, 3 COMPARTMENTS	PROVIDED BY RPS, INSTALLED BY GC	16
17	3	FAUCET, BACKSPLASH MOUNT	PROVIDED BY RPS, INSTALLED BY GC	17
18	4	DRAIN, LEVER HANDLE, W/ OVERFLOW	PROVIDED BY RPS, INSTALLED BY GC	18
33	1	MOBILE WORKTABLE	PROVIDED BY RPS, INSTALLED BY GC	33
34	1	HOLDING CABINET, HUMIDIFIED HEATED	PROVIDED BY RPS, INSTALLED BY GC	34
35	1	FRONT COUNTER		35
35.1	2	FOODSHIELD		35.1
36	1	DROP-IN, HOT WELLS		36
37	1	DROP-IN, HOT/COLD UNIT		37
38	1	MILK COOLER	NIKEC	38
39	1	POS	NIKEC	39
40	1	MOBILE WORKTABLE	PROVIDED BY RPS, INSTALLED BY GC	40
41	1	REFRIGERATED SELF-SERVICE CASE	PROVIDED BY RPS, INSTALLED BY GC	41
42	1	TABLE, WORK	W/ FLANGED FEET, PROVIDED BY RPS, INSTALLED BY GC	42
43	1	WORKTABLE W/SINK		43
44	1	FLOOR MIXER	EXISTING-RELOCATED	44
45	1	MOP SINK STORAGE CABINET		45

DISCLAIMER

THIS DRAWING IS PREPARED FOR THE USE OF THE DESIGN TEAM IN PREPARING THEIR RESPECTIVE DOCUMENTS; AND FOR BIDDING OF THE FOOD SERVICE EQUIPMENT. THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION AND FOR ROUGHING IN OF SERVICES. DIMENSIONED ROUGHING IN DRAWINGS WILL BE PREPARED BY THE KITCHEN EQUIPMENT CONTRACTOR.

GENERAL NOTES

1. ANY DISCREPANCIES BETWEEN THESE PLANS, WRITTEN SPECIFICATIONS, BUILDING, HEALTH OR OTHER LOCAL CODE REQUIREMENTS THAT MAY AFFECT THE DESIGN INTENT, INSTALLATION, FABRICATION OR OVERALL WORK IN ANY WAY SHALL BE BROUGHT TO THE ATTENTION OF THE FOODSERVICE CONSULTANT BY WAY OF THE GENERAL CONTRACTOR AND/OR ARCHITECT.
2. KITCHEN EQUIPMENT CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EQUIPMENT SHOWN ON PLANS AND MENTIONED IN THE WRITTEN SPECIFICATIONS. DISCREPANCIES IN QUANTITIES, ITEMS SHOWN ON PLAN BUT NOT MENTIONED IN THE WRITTEN SPECIFICATIONS OR VISA-VERSA SHALL BE BROUGHT TO THE ATTENTION OF THE FOODSERVICE CONSULTANT BY WAY OF THE GENERAL CONTRACTOR AND/OR ARCHITECT.
3. GENERAL CONTRACTOR SHALL PROVIDE A MEANS TO EVACUATE HEAT GENERATED BY FOODSERVICE EQUIPMENT WITHIN ENCLOSED SPACE(S).
4. GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL BLOCKING IN WALLS FOR MOUNTING WALL SHELVES, POT RACKS, DISPLAY CASES, HOSE REEL(S), HAND SINKS, CONTROL PANELS, ETC. AS SHOWN ON PLAN(S).
5. KITCHEN EQUIPMENT CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS.

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
FOODSERVICE EQUIPMENT PLAN & SCHEDULE

PROJECT INFORMATION
Date: April 03, 2017
Rev. Date:
RLJA Proj: 2015-052

SHEET NUMBER
FS101
OF
1

S2O
S2O Consultants, Inc.
530 N Wood #C
Chicago, IL 60622
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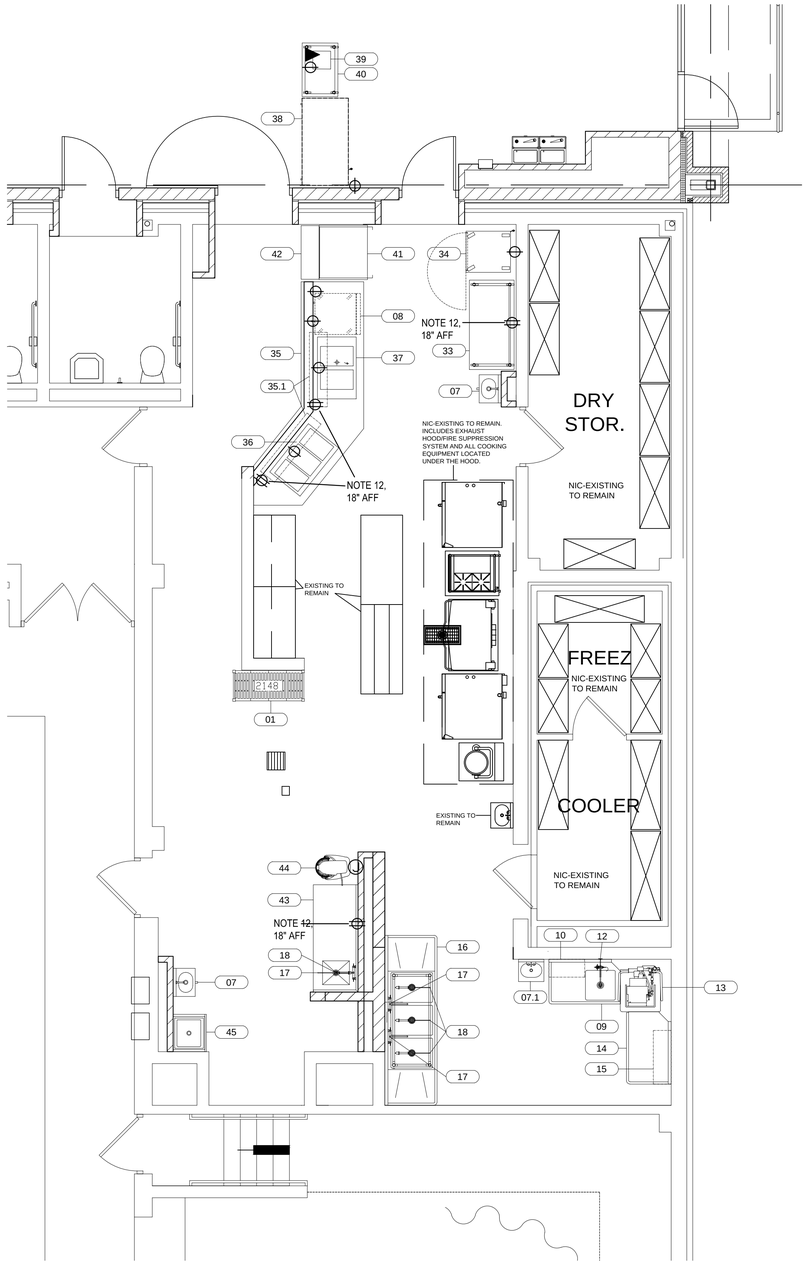

ELECTRICAL NOTES

TO BE PROVIDED BY ELECTRICAL CONTRACTOR

1. DRAWING SHOWS CONNECTION POINTS ON EQUIPMENT. ROUGH-IN POINTS ARE NOT THE SAME AND ALLOWANCES SHALL BE MADE FOR DISCONNECTS, ACCESS, ETC. ALL ROUGH-INS AND CONNECTIONS SHALL BE PER APPLICABLE CODE.
2. DRAWING SHOWS REQUIREMENTS FOR FOOD SERVICE EQUIPMENT ONLY; SEE ELECTRIC DRAWINGS FOR ADDITIONAL INFORMATION.
3. ALL CONDUITS, BOXES, ETC. SHALL BE CONCEALED WITHIN WALLS AND STUBBED OUT AS CLOSE AS POSSIBLE TO THE CONNECTION POINT. DO NOT RUN EXPOSED ON THE WALL.
4. CONDUIT EXPOSED ABOVE THE WORKING SURFACE OF THE EQUIPMENT SHALL BE STAINLESS STEEL, CHROME PLATED, OR SHROUDED IN A STAINLESS STEEL COVER.

5-8. NOT USED.

9. CASH REGISTERS AND SIMILAR COMPUTERIZED POINT-OF-SALE EQUIPMENT REQUIRE CLEAN, ISOLATED SERVICE.
10. PROVIDE EMPTY EMT BETWEEN CASH REGISTERS, POINT-OF-SALE UNITS AND CENTRAL LOCATION.
11. NOT USED.
12. PROVIDE DUPLEX CONVENIENCE OUTLET (DCO), 120/1, 20 AMPS AT HEIGHT INDICATED.
13. PROVIDE PENDANT RECEPTACLE, 120/1, 20 AMPS, AT 78" ABOVE THE FINISHED FLOOR

ELECTRICAL SYMBOLS

$	SWITCH
$3	3 WAY SWITCH
	SINGLE OUTLET 110 V.
	DUPLEX OUTLET 110 V.
	DOUBLE DUPLEX OUTLET 110 V.
	CEILING MOUNT FIXTURE
	JUNCTION BOX
	PHONE OUTLET
	DATA OUTLET
	POWER FEED JUMPER
	FLOURECENT LIGHT (SIZE OF FIXTURE VARIES)

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4. GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL BLOCKING IN WALLS FOR MOUNTING WALL SHELVES, POT RACKS, DISPLAY CASES, HOSE REEL(S), HAND SINKS, CONTROL PANELS, ETC. AS SHOWN ON PLAN(S).
5. KITCHEN EQUIPMENT CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS.

ELECTRICAL LOAD SCHEDULE

ITEM NO	QTY	EQUIPMENT CATEGORY	EQUIPMENT REMARKS	AMPS	HP	KW	VOLTS	PHASE	DIRECT	PLUG	NEMA	ELECTRICAL AFF (IN)	ELEC REMARKS	ITEM NO
08	1	PREP REFRIGERATOR	PROVIDED BY RPS, INSTALLED BY GC	6.0	0.2		120	1		X	5-20P	12		08
13	1	WAREWASHER, DOOR TYPE, HIGH TEMP	CORNER UNIT, PROVIDED BY RPS, INSTALLED BY GC	45.4			208	3	X			12.75		13
33	1	MOBILE WORKTABLE	PROVIDED BY RPS, INSTALLED BY GC	16.0			120	1		X	5-20P	78	PENDANT RECEPTACLE	33
34	1	HOLDING CABINET, HUMIDIFIED HEATED	PROVIDED BY RPS, INSTALLED BY GC	19.8			120	1		X	5-20P	78	PENDANT RECEPTACLE	34
35	1	FRONT COUNTER		(2)16			120	1		X	5-20P	18	DR-ON WALL BELOW COUNTER	35
36	1	DROP-IN, HOT WELLS		15.6		1.9	120	1		X	5-20P	16		36
37	1	DROP-IN, HOT/COLD UNIT		11.2			120	1		X	5-20P	18		37
38	1	MILK COOLER	NIKEC	6.3	0.33		115	1		X	5-20P	12		38
39	1	POS	NIKEC	16.0			120	1		X	5-20P	34	DATA REQ'D	39
41	1	REFRIGERATED SELF-SERVICE CASE	PROVIDED BY RPS, INSTALLED BY GC	14.0			120			X	5-20P	12		41
43	1	WORKTABLE W/SINK		16.0			120			X	5-20P	48	DR-CONVENIENCE OUTLET ON WALL	43
44	1	FLOOR MIXER	EXISTING-RELOCATED	X			X			X			VERIFY EXISTING & PROVIDE	44

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
FOODSERVICE
ELECTRICAL SPOT PLAN & LOAD SCHEDULE

PROJECT INFORMATION
Date: April 03, 2017
Rev. Date:
RLJA Proj: 2015-052

SHEET NUMBER
FS101E
OF
1

S2O
S2O Consultants, Inc.
530 N Wood #C
Chicago, IL 60622
224-717-1999

ITEM #35.1 DECO 250 (QTY 2)

NOTES: ALL DIMENSIONS ARE IN INCHES.
1. ALL GLASS PANELS TO BE TEMPERED WITH 1" RADIUS CORNERS & POLISHED EDGES.
2. 3/8" THICK FRONT GLASS, 3/8" TOP GLASS & 1/4" END GLASS.
3. FITTINGS TO HAVE BRUSHED ALUMINUM FINISH
4. POST MATERIAL STAINLESS STEEL WITH A BRUSHED SATIN FINISH.
5. FINISH & MOUNTING VERIFICATION REQUIRED.

NOTE: REAR POSTS ARE REQUIRED AT EACH END
OF ALL STEALTH HEAT PRODUCT

BSI,LLC
5125 Race Court
Denver, CO 80216
1.800.662.9595

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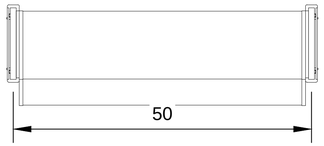
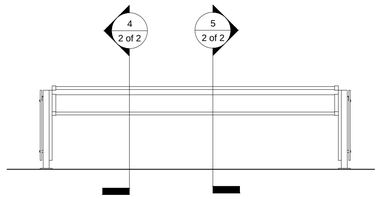
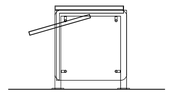


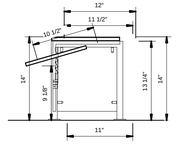
1 PLAN VIEW - ITEM #35.1
1" = 1'-0"



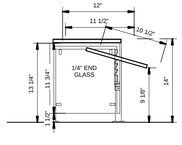
2 ELEVATION (FRONT) - ITEM #35.1
1" = 1'-0"



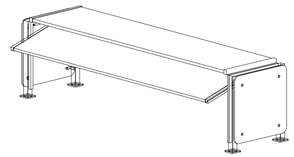
3 ELEVATION (END) - ITEM #35.1
1" = 1'-0"

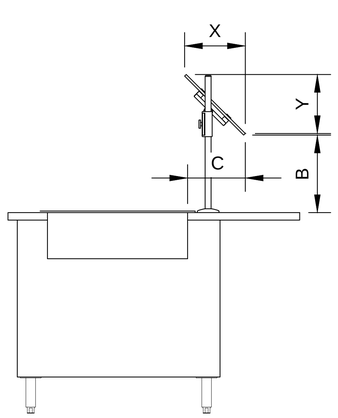


4 SECTION A - ITEM #35.1
1 1/2" = 1'-0"



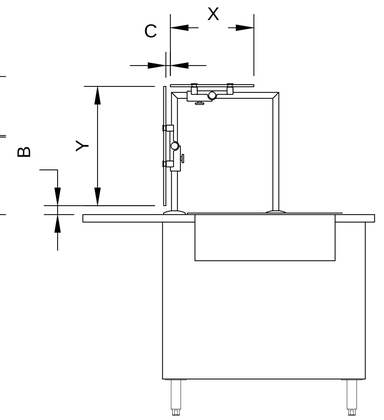
5 SECTION B - ITEM #35.1
1 1/2" = 1'-0"





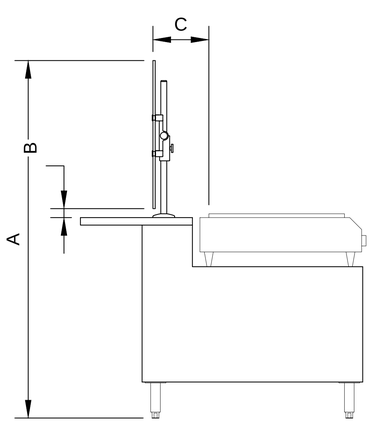
NSF SELF-SERVE FOOD SHIELD

1. SUM OF X AND Y DIMENSIONS SHALL BE EQUAL TO OR GREATER THAN 20".
2. GAP BETWEEN GLASS & COUNTER (B) MAY NOT EXCEED 13"
3. MINIMUM HORIZONTAL DISTANCE (C) BETWEEN BOTTOM LEADING EDGE OF FOOD SHIELD & DISPLAY FOOD IS 3/4 THE DISTANCE OF THE OPENING GAP (B). EXAMPLE: (B) = 13" MAX. (C) - 9-3/4" FROM DISPLAYED FOOD.



NSF SELF-SERVE FOOD SHIELD

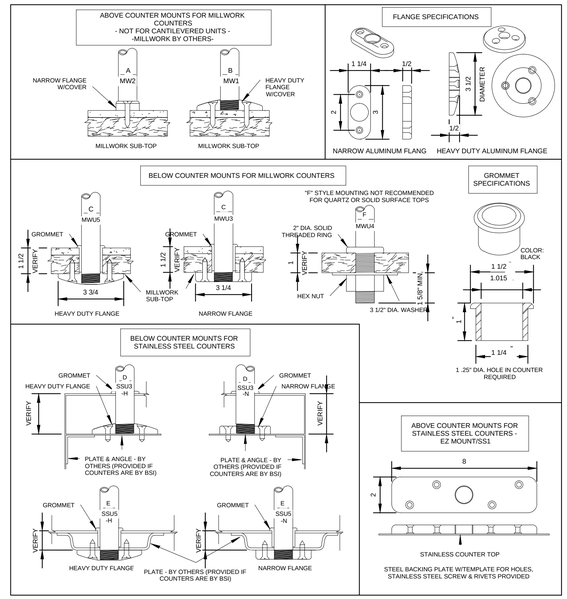
1. SUM OF X AND Y DIMENSIONS SHALL BE EQUAL TO OR GREATER THAN 32".
2. GAP BETWEEN FRONT VERTICAL GLASS & COUNTER (B) MAY NOT EXCEED 1-1/2".
3. MAXIMUM DISTANCE BETWEEN VERTICAL GLASS & HORIZONTAL GLASS (C) IS 3/4".



NSF COOKING/CARVING STATON FOOD SHIELD

1. TOP OF GLASS MUST BE 60" MINIMUM ABOVE FINISHED FLOOR (A).
2. GAP BETWEEN GLASS & COUNTER (B) MAY NOT EXCEED 6".
3. MINIMUM HORIZONTAL DISTANCE BETWEEN BOTTOM LEADING EDGE OF FOOD SHIELD & DISPLAYED FOOD (C) IS 3/4 THE DISTANCE OF THE OPENING GAP (B).
EXAMPLE: (B) 6" MAX. 9C) 4-1/2" MAX. FROM DISPLAYED FOOD.

NOTES & MOUNTING OPTIONS



BSI SHOP DRAWING DISCLAIMER

FOOD SERVICE EQUIPMENT CONTRACTOR (FSEC) SHOP DRAWING RESPONSIBILITY:

1. FSEC SHALL COORDINATE PLACEMENT OF BSI PRODUCTS ON EQUIPMENT SUPPLIED BY OTHERS.
2. FSEC TO PROVIDE COUNTER THICKNESS IF UNDER-COUNTER MOUNT METHOD TO BE USED. (REFERENCE MOUNT OPTIONS - THIS SHEET)
3. FSEC PLACEMENT OF BSI PRODUCTS SHALL NOT INTERFERE WITH INTENDED FUNCTION OF EQUIPMENT SUPPLIED BY OTHERS & MUST ENSURE PROPER MOUNTING LOCATIONS FOR BSI PRODUCTS.
4. FSEC COORDINATION SHALL INCLUDE SUPPLY & APPROVAL OF DIMENSIONS & SPECIFIC MOUNTING LOCATIONS ON EQUIPMENT SUPPLIED BY OTHERS.
5. FSEC IS RESPONSIBILE FOR ALL COST ASSOCIATED WITH CHANGES TO SHOP DRAWINGS PRIOR TO OR AFTER RELEASE OF BSI PRODUCT TO MANUFACTURING.
6. FSEC IS RESPONSIBLE FOR SELECTING TYPE OF FINISH THAT IS TO BE USED BEFORE RELEASE OF JOB.
7. FSEC APPROVAL OF BSI SHOP DRAWINGS CONSTITUTES THE FINAL CONTRACT BETWEEN THE PARTIES & RELEASES THE BSI PRODUCT TO MANUFACTURING.

BSI SHOP DRAWING RESPONSIBILITY:

IT IS THE RESPONSIBILITY OF THE FSEC TO PROVIDE REINFORCED COUNTERS & MOUNTING ACCOMODATIONS. MOUNTING SOLELY TO REINFORCED SHEET METAL IS UNACCEPTABLE. BSI SUPPLIES ONLY SUPPORTS & FLANGES. NO FASTENERS SUPPLIED. CIRCLE THE APPROPRIATE MOUNTING OPTION(S) BELOW. ALSO NOTE SELECTION ON EACH ITEM PAGE.

NSF END PANEL STANDARDS

1. ALL FOOD SHIELDS SHALL HAVE END PANELS ON BOTH ENDS UNLESS 3" OR LESS FROM WALL.
2. END PANELS MUST BE A MINIMUM OF 18" DEEP FROM LEADING EDGE OF FRONT GLASS PANEL.
3. MINIMUM END PANEL HEIGHT MUST BE SAME HEIGHT AS OVERALL HEIGHT OF FOOD SHIELD.
4. GAP BETWEEN BOTTOM EDGE OF END PANEL & COUNTER MAY NOT EXCEED 1-1/2".

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
FOODSHIELD DETAIL-
ITEM #35.1

PROJECT INFORMATION
Date: April 03, 2017
Rev. Date:
RLJA Proj: 2015-052

SHEET NUMBER
FS101F
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1

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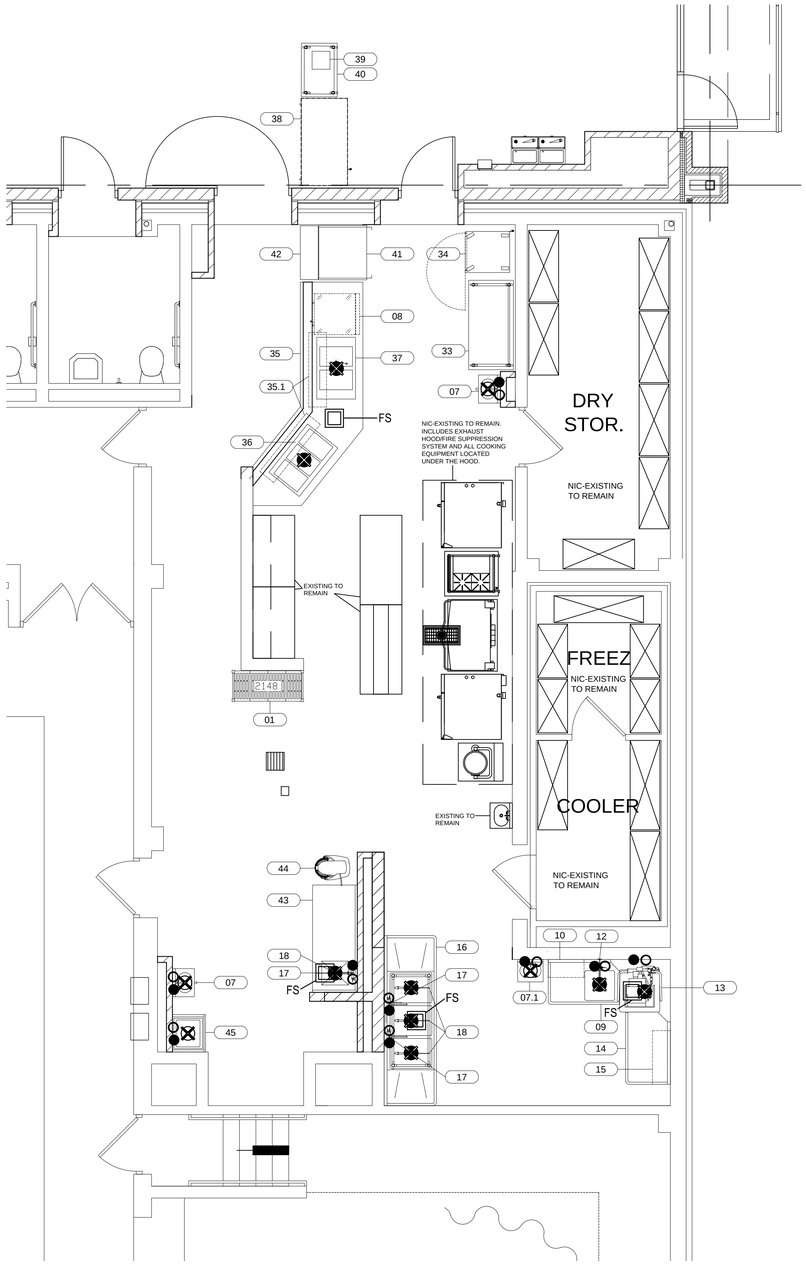

MECHANICAL NOTES

THESE NOTES APPLY TO THE WORK OF THE MECHANICAL AND PLUMBING TRADES.

1. DRAWING SHOWS CONNECTION POINTS ON EQUIPMENT, ROUGH-IN POINTS ARE NOT THE SAME AND ALLOWANCES SHALL BE MADE FOR VALVES, STOPS, ACCESS, ETC. ALL ROUGH-INS AND CONNECTIONS SHALL BE PER APPLICABLE CODE.
2. DRAWING SHOWS REQUIREMENTS FOR FOOD SERVICE EQUIPMENT ONLY; SEE MECHANICAL AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
3. ALL PIPE, FITTINGS, ETC. SHALL BE CONCEALED WITHIN WALLS AND STUBBED OUT AS CLOSE AS POSSIBLE TO THE CONNECTION POINT. DO NOT RUN EXPOSED ON THE WALL.
4. PIPING EXPOSED ABOVE THE WORKING SURFACE OF THE EQUIPMENT SHALL BE STAINLESS STEEL, CHROME PLATED, OR SHROUDED IN A STAINLESS STEEL COVER.
5. ALL PIPING SHALL BE AT LEAST 6" ABOVE THE FLOOR TO ALLOW FOR EASE OF CLEANING.

6-9. NOT USED.

10. WE RECOMMEND CENTRAL GREASE TRAPS EXTERNAL OF THE BUILDING CODE OR FOOD-SERVICE SPACE. IF THIS IS NOT POSSIBLE, THEN RECCESSED, POINT-OF-USE GREASE TRAPS ARE PERMITTED; COORDINATE LOCATION WITH KITCHEN DESIGNER.
11. REFRIGERATED EQUIPMENT IS DESIGNED FOR OPERATION IN AN AMBIENT TEMPERATURE NOT EXCEEDING 100 DEGREES FAHRENHEIT. AIR COOLED EQUIPMENT REQUIRES VENTILATION AT 1,000 CFM PER HORSEPOWER; WATER-COOLED EQUIPMENT REQUIRES COOLING WATER AT 70 DEGREES FAHRENHEIT AT THE RATE OF 1.5 GPM PER HORSEPOWER.

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4. GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL BLOCKING IN WALLS FOR MOUNTING WALL SHELVES, POT RACKS, DISPLAY CASES, HOSE REEL(S), HAND SINKS, CONTROL PANELS, ETC. AS SHOWN ON PLAN(S).
5. KITCHEN EQUIPMENT CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS.

MECHANICAL SYMBOLS

- HOT WATER
- COLD WATER
- INDIRECT WASTE
- DIRECT WASTE
- GAS CONNECTION
- COOLING WATER TOWER
- COOLING WATER TOWER RETURN
- STEAM SUPPLY
- CONDENSATE RETURN
- FLOOR SINK
- FUNNEL FLOOR DRAIN
- AREA FLOOR DRAIN
- COMPRESSED AIR
- REFRIGERATION LINE
- EXHAUST DUCT
- SUPPLY DUCT
- WATER FILTER INTERCONNECT

MECHANICAL SPOT PLAN

ITEM NO	QTY	EQUIPMENT CATEGORY	EQUIPMENT REMARKS	COLD WATER SIZE (IN)	COLD WATER AFF (IN)	HOT WATER SIZE (IN)	HOT WATER AFF (IN)	DIRECT DRAIN SIZE (IN)	DIRECT DRAIN AFF (IN)	INDIR DRAIN SIZE (IN)	PLUMBING REMARKS	ITEM NO
07	2	SINK, HAND, WALL MOUNT	PROVIDED BY RPS, INSTALLED BY GC	0.5	34	0.5	34	1.5	24			07
07.1	1	HAND SINK	EXISTING-RELOCATED	0.5	34	0.5	34	1.5	24			07.1
09	1	SOILED DISHTABLE, STRAIGHT		0.5	30	0.5	30			1.5	FS REQ'D	09
12	1	PRE-RINSE FAUCET, WALL MOUNT	PROVIDED BY RPS, INSTALLED BY GC	0.5	40	0.5	40					12
13	1	WAREWASHER, DOOR TYPE, HIGH TEMP	CORNER UNIT, PROVIDED BY RPS, INSTALLED BY GC	0.5	73.25	0.5	42.25			1.5	FS REQ'D	13
16	1	SINK, SCULLERY, 3 COMPARTMENTS	PROVIDED BY RPS, INSTALLED BY GC							X	DRAIN THROUGH GREASE TRAP	16
17	3	FAUCET, BACKSPLASH MOUNT	PROVIDED BY RPS, INSTALLED BY GC	0.5	40	0.5	40					17
18	4	DRAIN, LEVER HANDLE, W/ OVERFLOW	PROVIDED BY RPS, INSTALLED BY GC							2	FS REQ'D	18
36	1	DROP-IN, HOT WELLS								1	FS REQ'D	36
37	1	DROP-IN, HOT/COLD UNIT								0.5	FS REQ'D	37
45	1	MOP SINK STORAGE CABINET		0.5		0.5		2	0.5			45

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

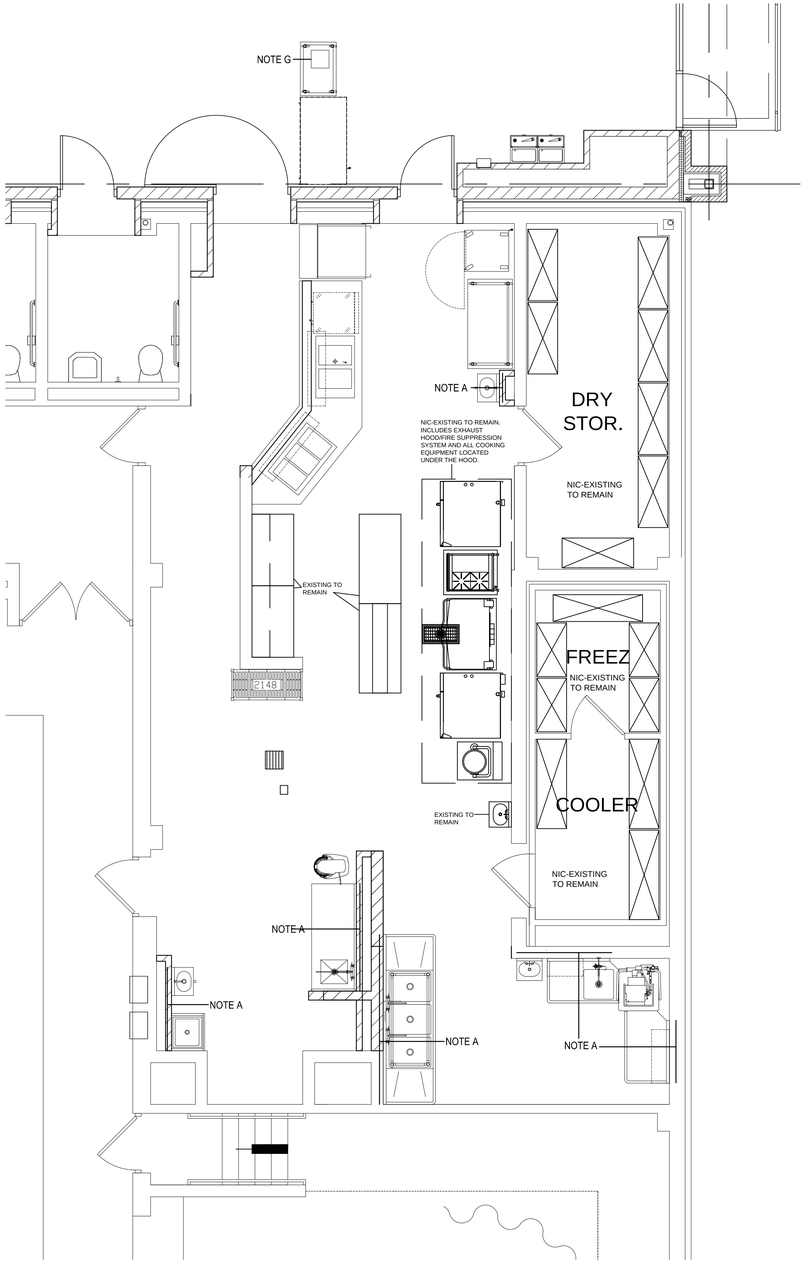
RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
FOODSERVICE
MECHANICAL SPOT PLAN & LOAD SCHEDULE

PROJECT INFORMATION
Date: April 03, 2017
Rev. Date:
RLJA Proj: 2015-052

SHEET NUMBER
FS101M
OF
1

S2O
S2O Consultants, Inc.
530 N Wood #C
Chicago, IL 60622
224-717-1999



SPECIAL CONDITIONS NOTES

A. REINFORCE WALLS AND CEILING AS REQUIRED TO SUPPORT EQUIPMENT (DOES NOT APPLY TO MASONRY WALLS).

B. NOT USED.

C. DEPRESS AND/OR BLOCK OUT SLAB FOR TROUGH DRAINS.

E-F. NOT USED.

G. PROVIDE 1" EMPTY EMT FOR INTERWIRING OF CASH REGISTERS, POINT-OF-SALE SYSTEMS AND SIMILAR EQUIPMENT TO CENTRAL POINT.

H-K. NOT USED.

L. OMIT FINISHED CEILING AT EXHAUST HOODS AND OVER WALKINS.

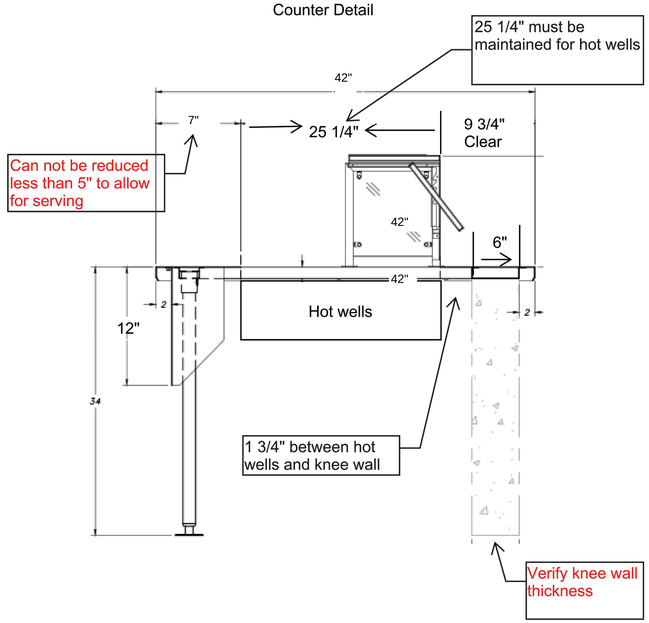
DISCLAIMER

THIS DRAWING IS PREPARED FOR THE USE OF THE DESIGN TEAM IN PREPARING THEIR RESPECTIVE DOCUMENTS; AND FOR BIDDING OF THE FOOD SERVICE EQUIPMENT. THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION AND FOR ROUGHING IN OF SERVICES. DIMENSIONED ROUGHING IN DRAWINGS WILL BE PREPARED BY THE KITCHEN EQUIPMENT CONTRACTOR.

GENERAL NOTES

1. ANY DISCREPANCIES BETWEEN THESE PLANS, WRITTEN SPECIFICATIONS, BUILDING, HEALTH OR OTHER LOCAL CODE REQUIREMENTS THAT MAY AFFECT THE DESIGN INTENT, INSTALLATION, FABRICATION OR OVERALL WORK IN ANY WAY SHALL BE BROUGHT TO THE ATTENTION OF THE FOODSERVICE CONSULTANT BY WAY OF THE GENERAL CONTRACTOR AND/OR ARCHITECT.
2. KITCHEN EQUIPMENT CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EQUIPMENT SHOWN ON PLANS AND MENTIONED IN THE WRITTEN SPECIFICATIONS. DISCREPANCIES IN QUANTITIES, ITEMS SHOWN ON PLAN BUT NOT MENTIONED IN THE WRITTEN SPECIFICATIONS OR VISA-VERSA SHALL BE BROUGHT TO THE ATTENTION OF THE FOODSERVICE CONSULTANT BY WAY OF THE GENERAL CONTRACTOR AND/OR ARCHITECT.
3. GENERAL CONTRACTOR SHALL PROVIDE A MEANS TO EVACUATE HEAT GENERATED BY FOODSERVICE EQUIPMENT WITHIN ENCLOSED SPACE(S).
4. GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL BLOCKING IN WALLS FOR MOUNTING WALL SHELVES, POT RACKS, DISPLAY CASES, HOSE REEL(S), HAND SINKS, CONTROL PANELS, ETC. AS SHOWN ON PLAN(S).
5. KITCHEN EQUIPMENT CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS.

Rockford Schools Front Counter Detail



CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
FOODSERVICE SPECIAL CONDITIONS PLAN

PROJECT INFORMATION
Date: April 03, 2017
Rev. Date:
RLJA Proj: 2015-052

SHEET NUMBER
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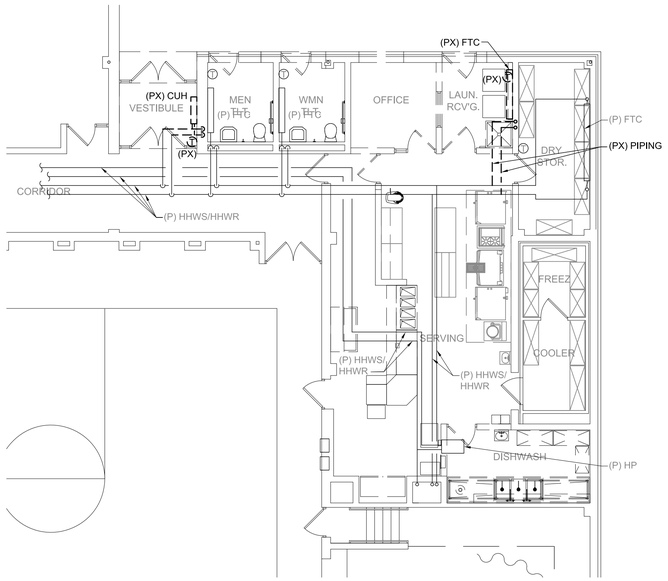
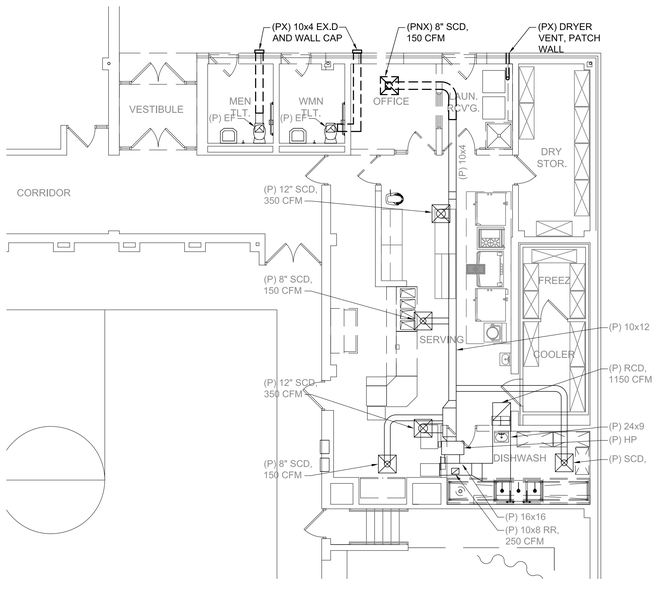
OF
1



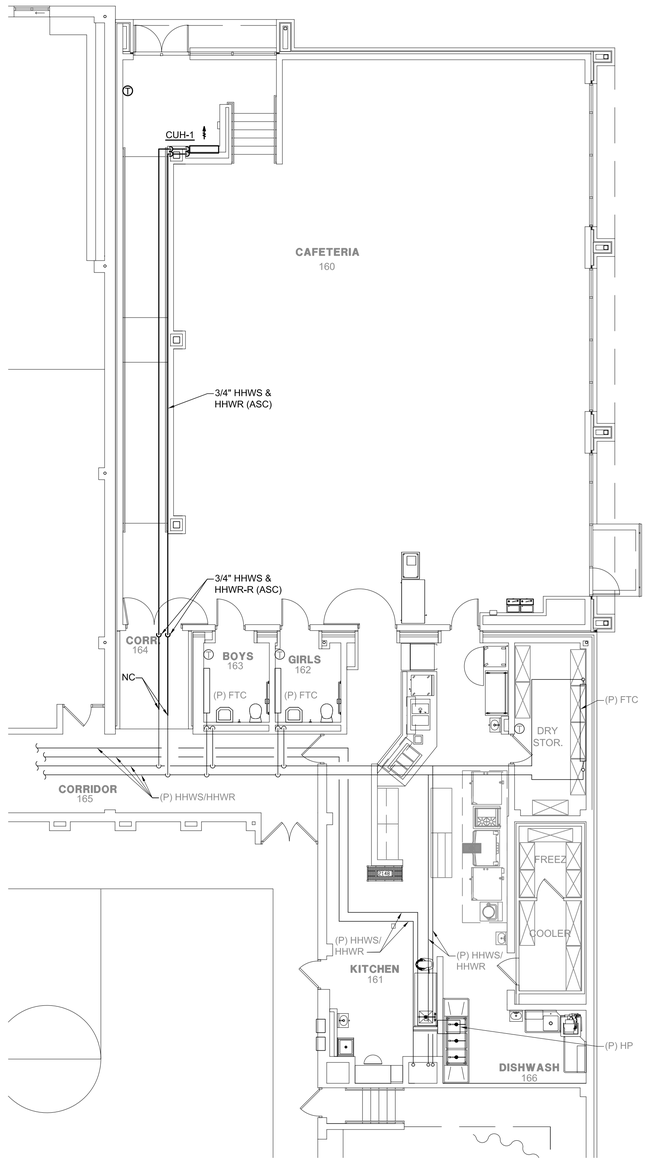
FIRST FLOOR PLAN - PIPING DEMOLITION

SCALE: 1/8" = 1'-0"



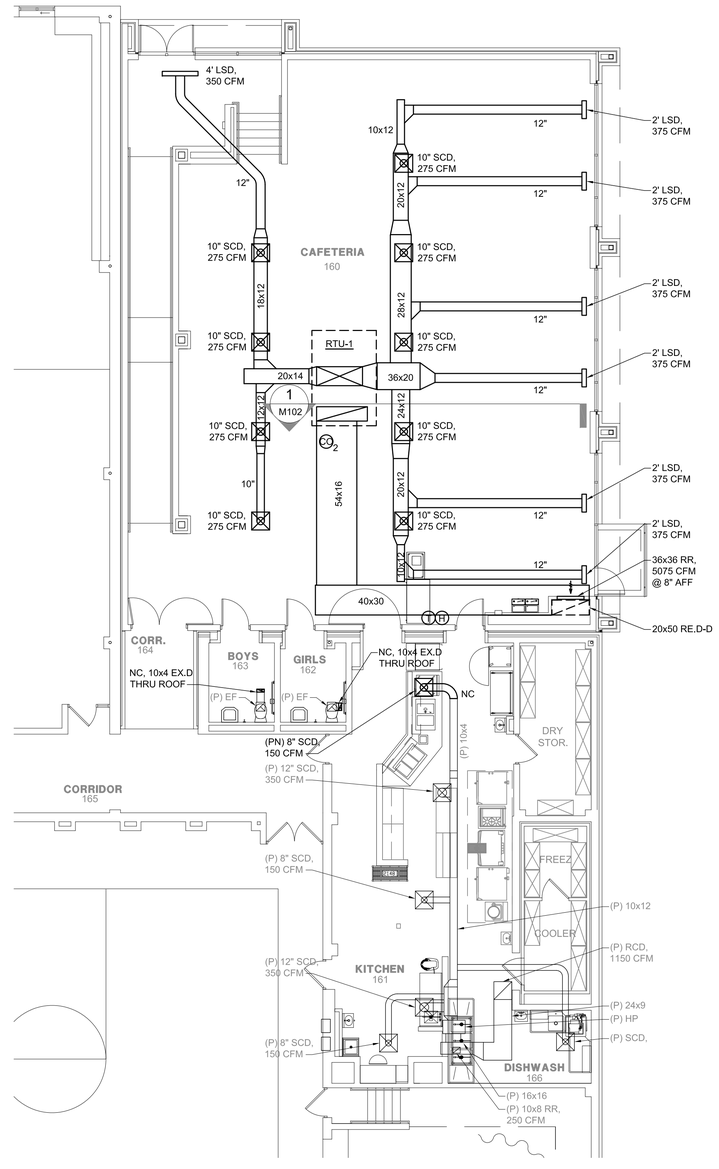
FIRST FLOOR PLAN - HVAC DEMOLITION

SCALE: 1/8" = 1'-0"



FIRST FLOOR PLAN - PIPING NEW WORK

SCALE: 1/8" = 1'-0"



FIRST FLOOR PLAN - HVAC NEW WORK

SCALE: 1/8" = 1'-0"

CAFETERIA ADDITION AND REMODELING TO

LEWIS LEMON ELEMENTARY SCHOOL

ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION

MECHANICAL DEMOLITION & NEW WORK PLANS

PROJECT INFORMATION

Date	April 3, 2017		
Rev. Date			
RLJA Proj	2015-052		

SHEET NUMBER

M101
OF
3

SYSTEMS DESIGN SERVICE ENGINEERING
3600 EAST STATE STREET • SUITE 215 • ROCKFORD, ILLINOIS • 61108
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IL PROF DESIGN FIRM #184.004999

ROOFTOP UNIT (RTU) EQUIPMENT SCHEDULE:

PLAN NO.	RTU-1
RTU MFR	CARRIER
RTU MODEL	48HCTE17
FUEL	NATURAL GAS
MBH IN/OUT	400/320
EFFICIENCY	81%
HTG STAGES	2
CFM/ESP (INCHES)	5075/0.75"
VENT MIN / % OUTSIDE AIR	200/4%
VENT MAX / % OUTSIDE AIR	1200/23%
DRIVE/SPEEDS	ADJ. BELT/1
NOM COOL CAP @ 95° F. (TON)	15
COOL STAGES	2
FILTERS TA	(6)20x25x2
UNIT VOLTAGE	208-3-60
UNIT MCA	88.2
UNIT MOCP	100
COMP RLA/LRA EACH	(2) 25/164
INDOOR FAN FLA	10.8
COMBUSTION FAN FLA	0.52
POWER EXHAUST FLA EACH	(2) 5.9
OUTDOOR FAN FLA EACH	(3) 1.5
EFFICIENCY RATING	12 EER
REFRIGERANT	R-410A
APPROX. WT. IN LBS.	2563
NOTES	1,2,3,4,5,6,7,8

NOTES: SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

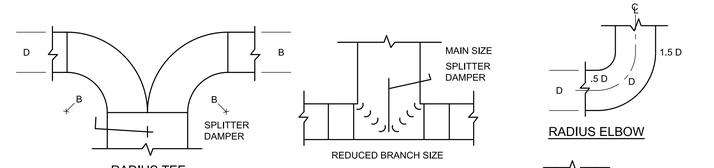
1. ALL UNITS SHALL BE EQUIPPED WITH FULL MODULATING ECONOMIZER WITH RETURN DUCT MOUNTED CO2 SENSOR FOR DEMAND CONTROLLED VENTILATION, AIRFLOW STATION FOR OUTSIDE AIR, ADJUSTABLE TEMPERATURE LIMIT CONTROLS, BAROMETRIC REFIEF DAMPERS, POWER EXHAUST, HUMIDIMIZER OPTION FOR HUMIDITY CONTROL, MEDIUM STATIC MOTOR, HIGH HEAT GAS, RTU OPEN CONTROLLER (TO TIE INTO EXISTING JACE, COORDINATE POINTS REQUIREMENTS DISTRICT CONTROLS REP, HVAC CONTRACTOR TO PROVIDE ALL WIRING AND PROGRAMMING TO EXISTING JACE), POWERED CONVENIENCE OUTLET AND NON FUSED DISCONNECT. ALL TO HAVE MINIMUM VENTILATION QUANTITIES SET AS CALLED FOR DURING OCCUPIED HOURS. SET ECONOMIZER CHANGEOVER CONTROL TO LOWEST DEWPOINT (50 DEG. F.) POSSIBLE TO LIMIT MOISTURE CONTENT OF AIR ENTERING BUILDING. PROVIDE DEEP SEAL TRAPPED CONDENSATE FROM DRAIN PAN CONNECTION TO ROOF.
2. ALL UNITS SHALL HAVE VIBRO-ACOUSTICS NOISE CANCELLING, INSULATED ROOF CURB.
3. FURNISH MANUFACTURER WALL MOUNTED TEMPERATURE SENSOR/HUMIDISTAT AS SHOWN ON DRAWINGS (MODEL ZS-H-CAR), TO TIE INTO EXITSING JACE (COORDINATE REQUIREMENTS WITH DISTRICT CONTROLS REP).
4. ALL TO HAVE FULL SIZE GAS CONNECTION WITH LINE SIZE VALVE, UNION AND DIRT LEG.
5. ALL TO HAVE FULL SIZE FLEXIBLE DUCT CONNECTION AT UNIT WITH FULL SIZE SUPPLY AND RETURN DUCT CONNECTIONS WITH 1" DL AT DROPS.
6. UNITS TO OPERATE FOR OCCUPIED MODE WITH FAN OPERATION, HEAT OR COOL AS SPACE DEMANDS, MOAD OPEN TO MINIMUM SETTING. UNITS TO CYCLE FOR UNOCCUPIED MODE WITH HEAT OR COOL AS SPACE DEMANDS AND MOAD CLOSED. SEE SPECIFICATION FOR FURTHER DETAIL.
7. EXTERNAL STATIC PRESSURE DOES NOT INCLUDE FILTER OR ECONOMIZER PRESSURE DROPS.
8. HVAC CONTRACTOR TO COORDINATE ALL FINAL SIZES WITH MANUFACTURER(S) PRIOR TO ORDERING, TO ASSURE PROPER USE AND SELECTION. CONTROL PACKAGES TO INCLUDE ALL NECESSARY RELAYS, DUCT SMOKE DETECTOR (BY E.C.), CONTACTORS, CONTROL CABINET/ PANELS, TRANSFORMERS, WIRING TERMINAL STRIP, WIRING DIAGRAMS, COMPLETE INSTALLATION DETAILS/MATERIAL LISTS/STARTUP AND CHECK OUT PROCEDURE FOR THE SYSTEM BY MANUFACTURER'S REP AND FACTORY CHECK OUT WITH WRITTEN ASSURANCE THAT THE SYSTEM IS OPERATING AND INSTALLED IN CONFORMANCE WITH MANUFACTURER'S REQUIREMENTS/RECOMMENDATIONS.

CABINET UNIT HEATER (CUH) SCHEDULE:

PLAN NO.	CUH-1
MFGR.	MODINE
MODEL	CW-002
TYPE	HOT WATER
MBH	11
VOLTAGE	120-1-60
HW SUPPLY CONN.	3/4"
HW RETURN CONN.	3/4"
APPROX. WT. IN LBS.	90
MOUNTING	SEMI-RECESSED WALL
NOTES	1,2,3,4

NOTES: SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

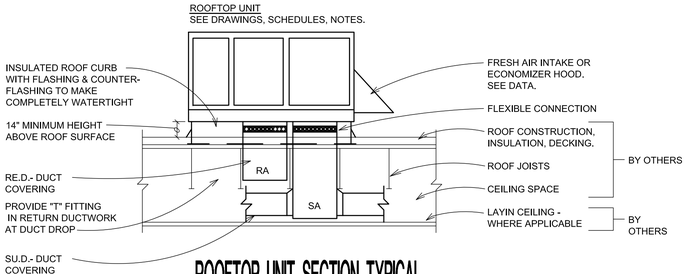
1. UNIT TO BE CONTROLLED BY PROGRAMMABLE THERMOSTAT AS SHOWN ON DRAWINGS, PROVIDE REQUIRED CONTROL VALVE (2 OR 3 WAY, CONTRACTOR TO VERFY IN FIELD HOW EXISTING SYSTEM IS PIPED PRIOR TO ORDERING VALVE) AND 24V ACTUATOR.
2. PROVIDE UNIT WITH FRONT INLET/OUTLET GRILLES (ARRANGEMENT 08), OPTIONAL RECESSED PREMA-LAP MOUNTING FRAME, AND FRONT ACCESS PANEL.
3. CUSTOM COLOR TO BE CHOSEN BY ARCHITECT, COORDINATE WITH ARCHITECT PRIOR TO ORDERING.
4. PROVIDE ISOLATION VALVES ON SUPPLY AND RETURN PIPING.



MAIN-BRANCH DUCT CONNECTIONS

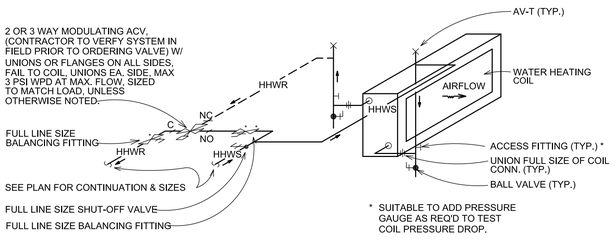
DUCT DETAILS

NO SCALE



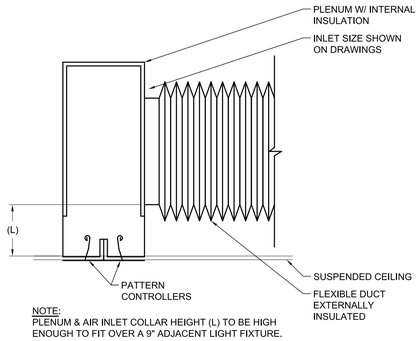
ROOFTOP UNIT SECTION TYPICAL

NO SCALE



HHWS/HHWR COIL PIPING DIAGRAM

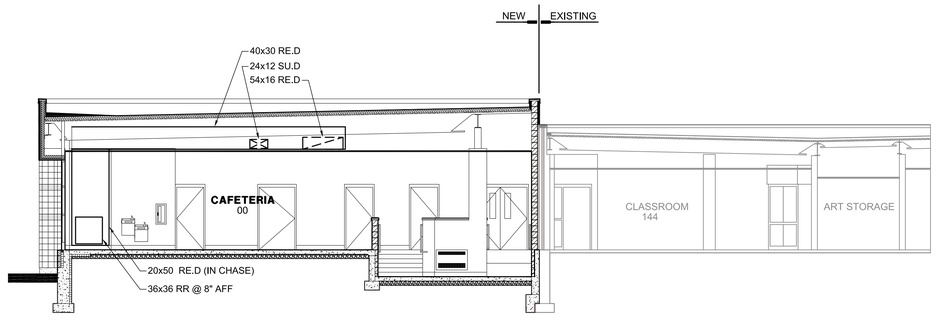
NO SCALE



NOTE:
PLENUM & AIR INLET COLLAR HEIGHT (L) TO BE HIGH ENOUGH TO FIT OVER A 9" ADJACENT LIGHT FIXTURE.

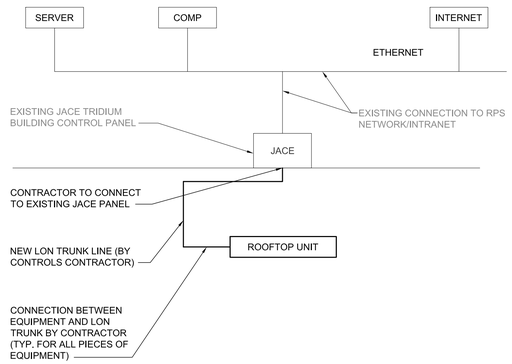
LINEAR SLOT DIFFUSER DETAIL

NO SCALE



1 RTU DUCTWORK SECTION

SCALE: 1/8" = 1'-0"

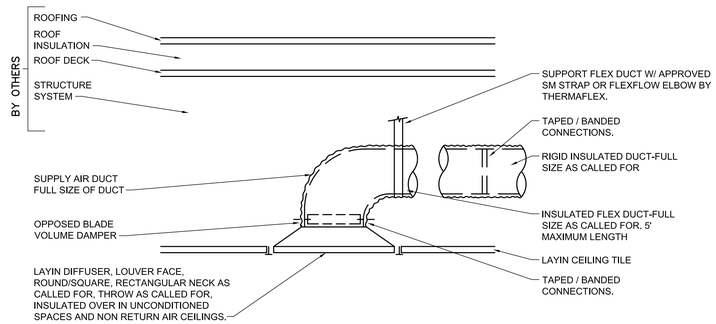


CONTROLS DIAGRAM

DIAGRAMATIC ONLY

POINTS LIST

Rooftop Unit (RTU)	Niagara System Point Names
Discharge Air Temperature	DAT
Discharge Air Temperature Set Point	DatStPt
Supply Fan Command	SFanCmd
Supply Fan Status	SFanSts
Supply Fan VFD Command	SFanVfdCmd
Supply Fan Alarm	SFanAlm
Return Fan Command	RFanCmd
Return Fan Status	RFanSts
Return Fan VFD Command	RFanVfdCmd
Return Fan Alarm	RFanAlm
Heating Command	HtgCmd
Cooling Command	ClgCmd
Mixed Air Temperature	MAT
Low Limit Alarm	LowLimit
Filter Alarm	FilterAlm
Smoke Alarm	SmkAlm
Return Air Temperature	RAT
Outside Air Damper Command	OaDmprCmd
Outside Air Damper Command Minimum Set Point	OaDmprMinStPt
Economizer Set Point	EconStPt
Occupied Command	OccCmd
Static Pressure	Static
Static Pressure Set Point	StaticStPt
Building Pressure	BldgPress
Building Pressure Set Point	BldgPressStPt



LAY-IN CEILING DIFFUSER DETAIL

NO SCALE

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
MECHANICAL EQUIPMENT SCHEDULES & DETAILS

PROJECT INFORMATION

Date	April 3, 2017		
Rev. Date			
RLJA Proj	2015-052		

SHEET NUMBER
M102
OF
3

SYSTEMS DESIGN SERVICE ENGINEERING
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IL PROF DESIGN FIRM #184.004499

PRESENT EQUIPMENT AND DEMOLITION NOTES

A. THE FOLLOWING REMOVED PRESENT EQUIPMENT AND MATERIALS WHICH ARE IN GOOD OPERATING CONDITION (OR ARE PLACED IN GOOD CONDITION), SUITABLE, MEETING THE REQUIREMENTS OF THESE SPECIFICATIONS, AND ARE APPROVED IN WRITING BY ENGINEER, OR CALLED FOR MAY BE REUSED (PXR, PXN, AND PN).
B. REMOVED DUCTWORK MUST NOT BE REUSED.
C. ANY OF ABOVE EQUIPMENT WHICH IS NOT REUSED AND FOLLOWING REMOVED PRESENT EQUIPMENT SHALL BECOME PROPERTY OF CONTRACTOR, AND SHALL BE REMOVED FROM PREMISES (PX).
   1. EQUIPMENT SO DESIGNATED ON DRAWINGS.
D. CONTRACTOR SHALL:
   1. PROVIDE NEW FLOORS UNDER REMOVED PRESENT EQUIPMENT AND WHERE CALLED FOR
   2. REPAIR FLOORS UNDER AND WALLS ADJACENT TO REMOVED EQUIPMENT, TO MATCH ADJACENT CONSTRUCTION.
   3. FILL IN PRESENT CHASES WHICH ARE NO LONGER REQUIRED AND NEATLY PATCH TO MATCH ADJACENT CONSTRUCTION.
   4. CUT OPENINGS REQUIRED FOR:
      a. HIS WORK;
      b. ADMISSION OF NEW EQUIPMENT;
      c. REMOVAL OF PRESENT EQUIPMENT;
      d. NEW CONNECTION TO PRESENT CONSTRUCTION.
   5. PATCH AND REPAIR UNUSED PRESENT HOLES AND OPENINGS, AND THOSE LEFT BY THE REMOVAL OF PRESENT EQUIPMENT AND ADMISSION OF NEW EQUIPMENT.
   6. PATCH AND REPAIR PRESENT EQUIPMENT, AND BUILDING CONSTRUCTION WHICH HAS NOT BEEN CUT, REMOVED, DISTURBED OR MARRED, AS REQUIRED, TO RESTORE IT TO ORIGINAL CONDITION BEFORE BEING DISTURBED.
E. UNUSED OPENINGS IN EQUIPMENT, WALLS, CEILING, FLOOR, ETC. SHALL BE FILLED.
F. PRESENT PAINTED CONSTRUCTION WHICH IS MARRED SHALL BE REPAIRED SAME AS NEW CONSTRUCTION.
G. CERTAIN ABBREVIATIONS OR SYMBOLS, WHEN APPLIED TO PRESENT (TO EXISTING) LINE, DEVICE OR EQUIPMENT, SHALL HAVE THE FOLLOWING MEANINGS:

NC — NEW CONNECTIONS TO PRESENT DUCTWORK, EQUIPMENT, PIPING, ETC. INSTALL, TEST, COVER, PAINT, ETC., SAME AS NEW WORK.

P — TO REMAIN UNCHANGED, IF CHANGE CANNOT BE AVOIDED, CHANGE "P" TO "PXR", AT NO INCREASE IN CONTRACT PRICE. VERIFY LOCATION.

PX — TO BE COMPLETELY REMOVED, INCLUDING UNNEEDED CONNECTIONS, PIPING, DUCTS, WIRING, BASES, ETC., OF EVERY KIND. UNUSED OPENINGS PLUGGED OR CAPPED, TESTED, COVERED, PAINTED SAME AS NEW WORK. OTHER DISTURBED WORK OF EVERY KIND RESTORED, PATCHED, TESTED, COVERED, PAINTED, ETC., TO EQUAL ORIGINAL CONDITION. REMOVED MATERIAL MUST NOT BE REUSED UNLESS OTHERWISE SPECIFIED OR DIRECTED BY ENGINEER.

PXR — SAME AS "PX", EXCEPT REMOVED, CLEANED AND RESTORED TO GOOD OPERATING CONDITION AND REINSTALLED, SAME AS NEW WORK, IN ORIGINAL POSITION, OR CLOSE TO ORIGINAL LOCATION. IF RECONDITIONING IS IMPRACTICAL, PROVIDE NEW DEVICE, AS APPROVED BY ENGINEER, AT NO INCREASE IN CONTRACT PRICE.

PXN — REMOVED, CLEANED AND RESTORED TO GOOD OPERATING CONDITION AND REINSTALLED SAME AS NEW WORK, IN NEW POSITION MARKED "PN", IF RECONDITIONING IS IMPRACTICAL, PROVIDE NEW DEVICE, AS APPROVED BY ENGINEER, AT NO INCREASE IN CONTRACT PRICE, UNUSED OPENINGS PLUGGED OR CAPPED, TESTED, COVERED, PAINTED SAME AS EXISTING OR NEW WORK. OTHER DISTURBED WORK OF EVERY KIND RESTORED, PATCHED, TESTED, COVERED, PAINTED, ETC., EQUAL TO EXISTING OR NEW WORK.

PN — COMPLETELY REINSTALL DEVICE AT NEW LOCATION TO EXISTING OR NEW DUCTWORK AS SHOWN, SAME AS NEW WORK. PROVIDE ALL NECESSARY DUCT OR PIPE EXTENSIONS AS REQUIRED.

PX-DO — SAME AS "PX", EXCEPT REMOVED, CLEANED AND RESTORED INTACT, AS FAR AS PRACTICAL, MATCHED MARKED, AND OTHERWISE IDENTIFIED AS REQUIRED AND DELIVERED TO OWNER OUTSIDE OF BUILDING AS DIRECTED BY ENGINEER.

H. WORK OF EVERY DIVISION SHALL BE COORDINATED WITH ALL OTHER WORK AND PRESENT CONDITIONS, SO THAT
   1. ELECTRICAL SERVICES TO PRESENT BUILDINGS OR PORTIONS OF BUILDING WILL NOT BE INTERRUPTED DURING PERIODS WHEN THOSE SERVICES ARE NEEDED.
   2. SPECIAL SYSTEMS SUCH AS FIRE ALARM, SOUND, ETC., OF EVERY KIND TO PRESENT BUILDINGS WILL NOT BE INTERRUPTED DURING WORKING AND/OR OCCUPIED HOURS, EXCEPT AS APPROVED BY THE OWNER.
I. DUCTWORK SERVING NEW AND/OR PRESENT MECHANICAL DEVICES IN FINISHED PRESENT ROOMS OR SPACES SHALL BE CONCEALED IN FINISHED ROOMS, WHERE POSSIBLE OR SHALL BE RUN IN ADJOINING UNFINISHED ROOMS, SHAFTS, CHAMBERS, CLOAK ROOMS, ETC., EXCEPT WHERE EXPOSED DUCT IS PERMITTED IN FINISHED PRESENT ROOMS BY ARCHITECT IN WRITING, PRESENT DIFFUSERS, GRILLS, REGISTERS, SWITCHES, ETC. SHALL BE REMOVED AS PER NOTE "PX" UNLESS ANOTHER SYMBOL IS SHOWN ON DRAWINGS OR THE DEVICES ARE SERVING OTHER EQUIPMENT. WHERE SPECIFICALLY APPROVED BY ARCHITECT IN WRITING, OPENINGS MAY BE PERMITTED TO REMAIN AND BE PROVIDED WITH NEAT FLUSH COVERS, EXTENDING OVER ENTIRE WALL OPENING.
J. UNNEEDED EQUIPMENT, DUCTWORK, ETC., SHALL BE COMPLETELY REMOVED; AND CONSTRUCTION PATCHED AS PER NOTE "PX". NEW CONNECTIONS TO PRESENT DUCTS/EQUIPMENT, SHALL BE MADE, TESTED, COVERED, PAINTED, ETC., SAME AS NEW EQUIPMENT. PRESENT EQUIPMENT, AND OTHER COVERING DISTURBED BY CONTRACTOR SHALL BE REPAIRED TO EQUAL NEW CONDITION AND PAINTED SAME AS NEW COVERING.
K. WORK SHALL BE COORDINATED SO THAT HEATING, PLUMBING, ELECTRICAL, INTERNET AND TELEPHONE SERVICES TO THE PRESENT BUILDING WILL NOT BE INTERRUPTED, EXCEPT AS APPROVED BY THE OWNER/ARCHITECT.

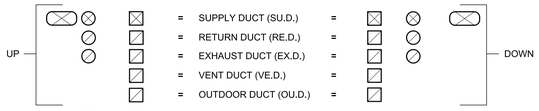
BASIC ABBREVIATIONS

MARK	DESCRIPTION	MARK	DESCRIPTION
AAD	AUTOMATIC ALUMINUM DAMPERS	MC	MECHANICAL CONTRACTOR
ACCU	AIR COOLED CONDENSING UNIT	MTD	MOUNTED
AD	ACCESS DOOR	NC	NEW CONNECTION
AFC	ADJUSTABLE FLEXIBLE CONNECTION	OA	OUTDOOR AIR
AFF	ABOVE FINISH FLOOR	OAD	OUTDOOR AIR DAMPER
ALUM	ALUMINUM	OAI	OUTDOOR AIR INTAKE
AP	ACCESS PANEL	OU.D.	OUTDOOR AIR DUCT
ASC	ABOVE SUSPENDED CEILING	P	PRESENT
BOD	BOTTOM OF DUCT	PC	PLUMBING CONTRACTOR
BDD	BACK DRAFT DAMPER	PRE	POWER ROOF EXHAUSTER
BJA	BETWEEN JOISTS ABOVE	RAD	RETURN AIR DAMPER
CAD	COMBUSTION AIR DAMPER	RE.D.	RETURN AIR DUCT
CD	CEILING DIFFUSER (S) SUPPLY (R) RETURN	REF	REFERENCE
CFM	CUBIC FEET PER MINUTE	REFRIG.	REFRIGERANT-LIQUID,SUCTION,HGBP
CLG	CEILING	RG	RETURN GRILLE
CTC	CLOSE TO CEILING (EXPOSED)	RR	RETURN REGISTER
CTF	CLOSE TO FLOOR	RTU	ROOFTOP UNIT
CTW	CLOSE TO WALL (EXPOSED)	SCD	SUPPLY CEILING DIFFUSER
CV	CONVECTOR	SIM	SIMILAR
DC	DUCT COVERING	SG	SUPPLY GRILLE
DCO	DOOR CUTOFF (BY OTHERS)	SM	SHEET METAL
DL	DUCT LINING	SR	SUPPLY REGISTER
DS	DISCONNECT SWITCH	SS	STAINLESS STEEL
DV	DOOR VENT (BY OTHERS)	STMR	STEAM RETURN
EC	ELECTRICAL CONTRACTOR	STMS	STEAM SUPPLY
EH	EXHAUST HOOD	SU.D.	SUPPLY DUCT
ER	EXHAUST REGISTER	TBF	TO BELOW FLOOR
EF	EXHAUST FAN	TC	TEMPERATURE CONTROL
EG	EXHAUST GRILLE	TFA	TO FLOOR ABOVE
EX.D.	EXHAUST DUCT	TFB	TO FLOOR BELOW
FT	FIN TUBE	TF.D.	TRANSFER DUCT
FBF	FROM BELOW FLOOR	TG	TRANSFER GRILLE
FBO	FURNISHED BY OTHERS	TJA	THRU JOIST ABOVE
FFA	FROM FLOOR ABOVE	TOD	TOP OF DUCT
FFB	FROM FLOOR BELOW	TR	THROUGH ROOF
FI.D.	FIRE DAMPER	TYP	TYPICAL
G	GAS PIPING	VE.D.	VENT AIR DUCT
GC	GENERAL CONTRACTOR	VD	VOLUME DAMPER
HGBP	HOT GAS BYPASS PIPING	VG	VENT GRILLE
HVAC	HEATING, VENTILATING & AIR CONDITION.	VTR	VENT THRU ROOF
IWS	IN WALL SPACE, CONCEALED	W/	WITH

SEE SPECIFICATIONS FOR ADDITIONAL ABBREVIATIONS, PREFIXES, SUFFIXES, ETC.

HVAC SHEET METAL SYMBOLS:

(SEE SPECIFICATIONS FOR ADDITIONAL NOTES, SYMBOLS, ABBREVIATIONS, ETC.)



= SUPPLY DUCT (SU.D.)
= RETURN DUCT (RE.D.)
= EXHAUST DUCT (EX.D.)
= VENT DUCT (VE.D.)
= OUTDOOR DUCT (OU.D.)

= SUPPLY CEILING DIFFUSER

= SUPPLY REGISTER (SR) = SUFFIX (-W) = WALL MOUNT - CFM TYP.
SUFFIX (-C) = CEILING MOUNT
SUFFIX (-F) = FLOOR MOUNT
SUFFIX (-#) = TYPE AS SCHEDULED

= RETURN REGISTER (RR) =

= EXHAUST REGISTER (ER) =

= VENT REGISTER (VR) =

= SUPPLY GRILLE (SG) =

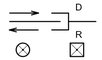
= RETURN GRILLE (RG) =

= EXHAUST GRILLE (EG) =

= VENT GRILLE (VG) =

DCO = DOOR CUT-OFF (DCO); BY OTHERS

DV = DOOR VENT (DV); BY OTHERS

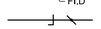


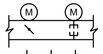
= DUCT R=RISE, D=DROP WITH DIRECTION OF AIR FLOW

= SUPPLY CEILING DIFFUSER (SCD)
4 WAY 3 WAY 2 WAY OPPOSITE 2 WAY CORNER 1 WAY

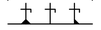
= ARROW INDICATES DIRECTION OF AIR FLOW

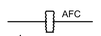
= U.L. FIRE DAMPER - SHEET METAL SLEEVE AROUND DUCT IN WALL, ADJACENT ACCESS DOOR


= MANUAL VOLUME DAMPER - MUST BE ACCESSIBLE



= MOTORIZED VOLUME DAMPER - MUST BE ACCESSIBLE


= BRANCH DUCT TAKE-OFF WITH MANUAL VOLUME EXTRACTOR, MUST BE ACCESSIBLE



= ADJUSTABLE FLEXIBLE CONNECTION (AFC) BETWEEN DUCTS

= ADJUSTABLE FLEXIBLE CONNECTION TO REGISTER, DIFFUSERS, ETC.

= VANED ELBOW - SMACNA PLATE #22

= RADIUS ELBOW - SMACNA PLATE #21 LOW VELOCITY

= THERMOSTAT - ARROW INDICATES UNITS CONTROLLED, UP 4'-6", -G = WITH GUARD, 4'-0" FOR HANDICAP.

X/Y , N x O = DUCT SIZE (1ST FIGURE SIDE SHOWN, 2ND FIGURE SIDE NOT SHOWN) BOTH SIDES REFER TO INSIDE DIMENSION, DIMENSIONS IN INCHES.

XØ = DIAMETER, DIMENSIONS IN INCHES.

EQUIPMENT , EQUIPMENT = EQUIPMENT NOTE, DESIGNATION, OR ITEM.

MECHANICAL GENERAL NOTES:

1. DRAWINGS ARE GENERALLY DIAGRAMMATIC. EACH CONTRACTOR SHALL MAKE REQUIRED CHANGES FROM THE GENERAL ROUTING SHOWN ON THESE DRAWINGS SUCH AS OFF SETS, BENDS OR CHANGES IN ELEVATION DUE TO COORDINATION WITH THE WORK OF OTHER TRADES AND THE BUILDING CONSTRUCTION. ALL CHANGES SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER. FOR PRESENT CONSTRUCTION, VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING TO AVOID CONFLICT. IT IS INTENDED THAT ALL EQUIPMENT, MATERIAL, DEVICES, ETC., SHALL BE LOCATED SYMMETRICALLY WITH THE ARCHITECTURAL ELEMENTS, NOTWITHSTANDING THE FACT THAT LOCATIONS INDICATED BY THESE DRAWINGS MAY BE DISTORTED FOR CLEARNESS OF PRESENTATION.

   CONTRACTOR IS ALLOWED TO MAKE MINOR CHANGES TO THE PIPING TO AVOID FIELD CONFLICTS AT NO ADDITIONAL COST TO THE OWNER AND AS LONG AS THE RELOCATION DOES NOT AFFECT THE PERFORMANCE OF THE SYSTEM.

   EACH CONTRACTOR SHALL CHECK DRAWINGS OF THE OTHER CONTRACTORS TO VERIFY SPACES IN WHICH THEIR WORK WILL BE INSTALLED IS CLEAR OF OBSTRUCTIONS. MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITIONS AT ALL POINTS IN THE BUILDING. WHERE HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE, NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE INSTALLATION.

   FURNISH ALL TRADES ADVANCE INFORMATION ON LOCATIONS AND SIZES OF PIPING, DUCTWORK, EQUIPMENT, FRAMES, BOXES, SLEEVES AND OPENINGS NEEDED FOR WORK, AND ALSO FURNISH INFORMATION AND SHOP DRAWINGS TO PERMIT TRADES AFFECTED TO INSTALL THEIR WORK PROPERLY AND WITHOUT DELAY.

   WHERE THERE IS EVIDENCE THAT WORK OF ONE TRADE WILL INTERFERE WITH WORK OF OTHER TRADES, ALL TRADES SHALL ASSIST IN WORKING OUT SPACE CONDITIONS TO MAKE SATISFACTORY ADJUSTMENTS.

   CONTRACTOR TO REVIEW, PRIOR TO BIDDING, ALL DRAWINGS TO COORDINATE VARIOUS WORK AS CALLED FOR. CONTRACTOR SHALL CAREFULLY CHECK ALL DRAWINGS FOR ALL TRADES, AND ANY LACK OF COORDINATION BETWEEN HIS WORK AND DRAWINGS FOR JOB CONDITIONS SHALL BE IMMEDIATELY REPORTED TO ARCHITECT.

   CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING, INCLUDING CORE DRILLING, SAW CUTTING, ETC., AS REQUIRED TO ACCOMMODATE HIS WORK. CUTTING AND PATCHING AND PAYMENT OF SAID WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR REQUIRING THE DISTURBANCE BUT SAME SHALL BE DONE BY A GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE APPROPRIATE MECHANICAL CONTRACTOR TO GIVE QUANTITIES OF PATCHING REQUIREMENTS TO A GENERAL CONTRACTOR. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

   CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF PRESENT CEILINGS, LIGHT FIXTURES, DIFFUSERS, DUCTWORK, PIPING, CONDUIT, ETC., AS REQUIRED FOR THE INSTALLATION OF HIS WORK. REMOVAL, REPLACEMENT AND PAYMENT FOR MECHANICAL/ELECTRICAL ITEMS SHALL BE THE RESPONSIBILITY OF THE APPLICABLE MECHANICAL CONTRACTOR. REMOVAL AND REPLACEMENT OF PRESENT CEILINGS, ETC., SHALL BE THE RESPONSIBILITY OF CONTRACTOR MAKING THE DISTURBANCE BUT SAME SHALL BE DONE BY A GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE APPROPRIATE MECHANICAL CONTRACTOR TO GIVE QUANTITIES OF REMOVAL/REPLACEMENT REQUIREMENTS TO A GENERAL CONTRACTOR.
2. HEATING, VENTILATING, AIR CONDITIONING, AND ELECTRICAL DESIGNS ARE BASED ON THE REQUIREMENTS FOR THE SPECIFIED EQUIPMENT MANUFACTURER, CONDUITS, DISCONNECTS, BREAKERS, FUSES, AND WIRE SIZES ARE SELECTED ON THE BASIS OF SPECIFIED EQUIPMENT MANUFACTURER. INCREASED CURRENT REQUIREMENTS NECESSITATING LARGER WIRE, BREAKERS, FUSES, SWITCHES, ETC. TO ACCOMMODATE ANY ALTERNATE OR SUBSTITUTE MANUFACTURER'S EQUIPMENT OTHER THAN AS SHOWN ON DRAWINGS OR SCHEDULES SHALL BE PROVIDED WITHOUT INCREASE IN CONTRACT PRICE BY THE CONTRACTOR FURNISHING EQUIPMENT. WIRE SIZES ARE SELECTED ON THE BASIS OF SPECIFIED EQUIPMENT.
3. CONTRACTOR SHALL PROVIDE TRAPPED COOLING COIL CONDENSATE DRAIN LINES FROM ALL ROOFTOP UNITS TO ROOF.
4. CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR FOR ALL CEILING DIFFUSERS, REGISTERS, AND/OR GRILLES AS TO LOCATION, QUANTITIES AND PROPER TYPES FOR SURFACE MOUNT AND/OR LAY-IN SUSPENDED CEILINGS AND LIGHT PATTERNS. OPENINGS SHALL BE IN CENTER OF TILES OR AS DIRECTED BY ARCHITECT/ENGINEER.
5. CONTRACTOR SHALL INCLUDE IN HIS WORK THE RELOCATION OF ALL CROSS BRACING, AS REQUIRED TO FIT DUCTS BETWEEN JOISTS. THIS WORK SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR WITH ARCHITECTURAL APPROVAL.
6. CONTRACTOR SHALL PROVIDE ALL DUCT DROPS AND OFFSETS TO AVOID INTERFERENCES WITH JOISTS, OTHER DUCTS, LIGHTS, PIPES, ETC.
7. ALL DUCTWORK TO BE HELD TIGHT TO STRUCTURAL ROOF JOISTS, BEAMS, ETC. AS CLEARANCE IS MINIMAL. COORDINATE WITH OTHER CONTRACTORS TO AVOID CONFLICT. ALL DUCTWORK IS ABOVE SUSPENDED CEILINGS, UNLESS NOTED OTHERWISE.
8. SHEETMETAL DUCT SIZES MAY BE ALTERED TO FIT JOB CONDITIONS, BUT NET FREE AREAS MUST BE MAINTAINED. INCREASE SHEETMETAL DUCT SIZE TO ALLOW FOR DUCT LINING. INSULATE DUCTWORK AS NOTED.
9. INSTALL 1" OF NON-SHRINK GROUT AROUND DUCTWORK ON EACH WALL FACE TO SEAL OPENINGS AND ELIMINATE SOUND TRANSFER WITH AIR-TIGHT CONNECTIONS.
10. OUTDOOR INTAKE SHEETMETAL DUCTWORK SHALL BE WATER-TIGHT WITH SOLDERED SEAMS. PITCH DUCTWORK TO WALL LOUVER AND SCREEN TO DRAIN ALL MOISTURE TO BUILDING EXTERIOR. INTAKES TO BE INSULATED. CAULK AROUND INTAKE AT EXTERIOR WALL, COORDINATE WITH GENERAL CONTRACTOR.
11. CONTRACTOR SHALL INCLUDE IN HIS WORK (1) SET OF FILTERS TO BE USED DURING CONSTRUCTION FOR ALL AIR HANDLING EQUIPMENT, FURNACES, ENERGY RECOVERY VENTILATORS, ROOFTOP UNITS, RETURN FANS, FILTER BOXES, FAN OPERATED VAV BOXES, ETC. CONTRACTOR PRIOR TO AIR BALANCING AND BUILDING OCCUPANCY SHALL INSTALL A COMPLETE SET OF CLEAN FILTERS. PROVIDE TO OWNER (1) COMPLETE SPARE/REPLACEMENT SET OF FILTERS FOR EACH PIECE OF EQUIPMENT. PROVIDE ALSO TO OWNER IN WRITING REPLACEMENT SIZES, TYPE, NUMBER PER EQUIPMENT, LOCATIONS, ETC.
12. INSTALL DRAFT DIVERTERS, POWER VENTERS, COMBUSTION AIR INTAKE, VENT PIPING, ETC., FOR WATER HEATERS AS RECOMMENDED BY UNIT MANUFACTURER.
13. ALL THERMOSTATS LOCATED UP 4'-0" TO MEET ADA REQUIREMENTS WITH PLASTIC OR CAST GUARDS, AS SPECIFIED, ALL THERMOSTATS LOCATED ON EXTERIOR WALLS OR COLUMNS MUST BE MOUNTED ON THERMAL INSULATING BLOCKS.
14. DESIGN CONDITIONS:
    DEPARTMENT OF ENERGY VERSION 2.2 BUILDING SIMULATION,
    NATIONAL WEATHER SERVICE TMY 2 DATA FOR ROCHELLE, IL
    BUILDING PEAK HEATING AND COOLING LOADS SUMMARY:

	MECHANICAL CODE VENTILATION							PER EQUEST DOE-2.2 SIMULATION			
								ENVELOPE (BTUH)		OUTSIDE AIR (BTUH)	
RTU-1	Az	Rp	Ra	Occ/1000	Pz	RpPz	RaAz	Vbz	HEAT LOAD	COOL LOAD	HEAT	COOL
PERIMITER	668	7.5	0.1	50	33.4	250.5	40.1	290.6	19041.3	25564.4	29005.7	8572.1
CORE	2595	7.5	0.1	50	129.8	973.1	155.7	1128.8	14519.0	56181.8	112679.3	33300.3
	3263			Total Outside Air (CFM)				1419.4				

    PEAK CONDITIONS:
    WINTER: JAN 30, 7AM, -12°F DB, -13°F WB, WIND @ 7.1 KNTS
    SUMMER: JUN 30, 5PM, 92°F DB, 76°F WB, WIND @ 7.8 KNTS
15. PRESENT PAINTED CONSTRUCTION WHICH IS MARRED SHALL BE REPAINTED SAME AS NEW CONSTRUCTION.
16. SEE ARCHITECTUTAL CODE PLANS FOR WALL FIRE RATINGS. WHERE CONDUIT, PIPES, ETC. PASS THROUGH FIRE-RATED WALLS, PARTITIONS, FLOORS AND CEILINGS, SEAL OPENINGS IN ACCORDANCE WITH ICC, NEC, SPECIFICATIONS AND LOCAL REQUIREMENTS.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING, INCLUDING CORE DRILLING, SAW CUTTING, ETC., AS REQUIRED TO ACCOMMODATE HIS WORK. CUTTING AND PATCHING AND PAYMENT OF SAID WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR REQUIRING THE DISTURBANCE BUT SAME SHALL BE DONE BY A GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO GIVE QUANTITIES OF PATCHING REQUIREMENTS TO A GENERAL CONTRACTOR.

    CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF PRESENT CEILINGS, LIGHT FIXTURES, DIFFUSERS, DUCTWORK, PIPING, CONDUIT, ETC., AS REQUIRED FOR THE INSTALLATION OF HIS WORK. REMOVAL, REPLACEMENT AND PAYMENT FOR PLUMBING/ ELECTRICAL ITEMS SHALL BE THE RESPONSIBILITY OF THE APPLICABLE MECHANICAL CONTRACTOR. REMOVAL AND REPLACEMENT OF PRESENT CEILINGS, ETC., SHALL BE THE RESPONSIBILITY OF CONTRACTOR MAKING THE DISTURBANCE BUT SAME SHALL BE DONE BY A GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE APPROPRIATE MECHANICAL CONTRACTOR TO GIVE QUANTITIES OF REMOVAL/REPLACEMENT REQUIREMENTS TO A GENERAL CONTRACTOR.

    CONTRACTOR SHALL VERIFY FINAL LOCATIONS AND CEILING TYPES FOR ALL MECHANICAL EQUIPMENT WITH ARCHITECTURAL REFLECTED CEILING PLAN AND ALL TRADES BEFORE ORDERING OR ROUGH-IN OF EQUIPMENT TO AVOID CONFLICTS.
18. CONTRACTOR TO MAKE THE DISTRICT AWARE OF ANY CODE VIOLATIONS FOUND DURING CONSTRUCTION. CONTRACTOR WILL BE DIRECTED HOW TO PROSEED AFTER ANY ISSUE HAS BEEN INVESTIGATED BY THE DISTRICT.
18. THE USER OF THE DRAWINGS AGREES TO HOLD THE ENGINEER HARMLESS FOR ANY RESPONSIBILITY IN REGARD TO CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES AND FOR ANY SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK AND FURTHER SHALL HOLD THE ENGINEER HARMLESS FOR COST AND PROBLEMS ARISING FROM THE NEGLIGENCE OF THE CONTRACTOR, SUBCONTRACTOR, TRADESMEN OR WORKMEN. THE USE OF THESE DRAWINGS ALSO IMPLIES THAT THE ENGINEER SHALL TAKE NO RESPONSIBILITY FOR THE PLANNED USER'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE DRAWINGS OR CONTRACT DOCUMENTS.
19. SEE SPECIFICATIONS FOR ADDITIONAL NOTES, SYMBOLS, ABBREVIATIONS, PREFIXES AND SUFFIXES.

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
MECHANICAL DEMOLITION NOTES, ABBREVIATIONS, & GENERAL NOTES

PROJECT INFORMATION

Date	April 3, 2017
Rev. Date	
RLJA Proj	2015-052

SHEET NUMBER
M103
OF
3

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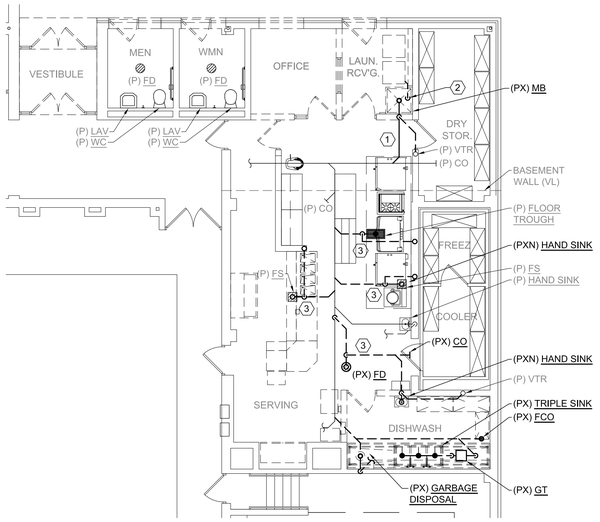
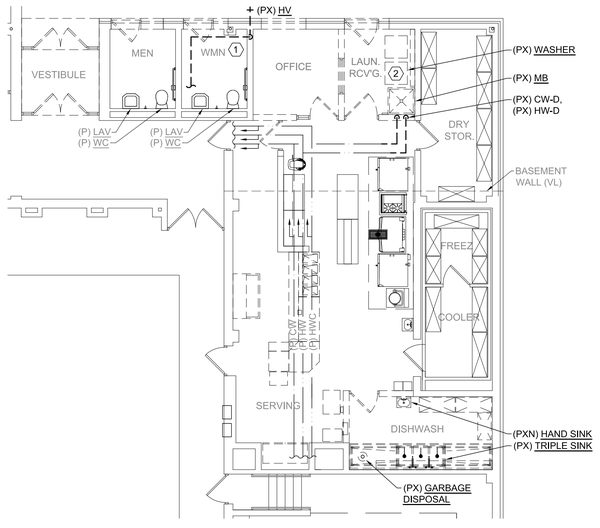


FIRST FLOOR DEMO PLAN - SANITARY

SCALE: 1/8" = 1'-0"

DRAWING NOTES:

1. DEMO (PX) WASTE & VENT FROM MOP BASIN BACK TO NEAREST USED BRANCH. CUT AND PATCH ANY WALLS OR FLOORS TO MATCH EXISTING.
2. DEMO (PX) WASTE FROM WASHER TO MOP BASIN.
3. DEMO (PX) WASTE & VENT BACK TO NEAREST BRANCH OR MAIN.



FIRST FLOOR DEMO PLAN - WATER

SCALE: 1/8" = 1'-0"

DRAWING NOTES:

1. DEMO (PX) HOSE VALVE AND WATER PIPING BACK TO THE NEAREST USED BRANCH. CUT & PATCH FLOOR/CEILING AS REQUIRED.
2. DEMO (PX) CW & HW FROM WASHER BACK TO NEAREST USED BRANCH.

PRESENT EQUIPMENT AND DEMOLITION NOTES:

A. THE FOLLOWING REMOVED PRESENT EQUIPMENT AND MATERIALS WHICH ARE IN GOOD OPERATING CONDITION (OR ARE PLACED IN GOOD CONDITION), SUITABLE, MEETING THE REQUIREMENTS OF THESE SPECIFICATIONS, AND ARE APPROVED IN WRITING BY ENGINEER, OR CALLED FOR MAY BE REUSED (PXR, PXN, AND PN).

B. REMOVED PIPING MUST NOT BE REUSED.

C. ANY OF ABOVE EQUIPMENT WHICH IS NOT REUSED AND FOLLOWING REMOVED PRESENT EQUIPMENT SHALL BECOME PROPERTY OF CONTRACTOR, AND SHALL BE REMOVED FROM PREMISES (PX).
   1. EQUIPMENT SO DESIGNATED ON DRAWINGS.

D. CONTRACTOR SHALL;
   1. PROVIDE NEW FLOORS UNDER REMOVED PRESENT EQUIPMENT AND WHERE CALLED FOR.
   2. REPAIR FLOORS UNDER AND WALLS ADJACENT TO REMOVED EQUIPMENT, TO MATCH ADJACENT CONSTRUCTION.
   3. FILL IN PRESENT CHASES WHICH ARE NO LONGER REQUIRED AND NEATLY PATCH TO MATCH ADJACENT CONSTRUCTION.
   4. CUT OPENINGS REQUIRED FOR:
      a. HIS WORK
      b. ADMISSION OF NEW EQUIPMENT
      c. REMOVAL OF PRESENT EQUIPMENT
      d. NEW CONNECTION TO PRESENT CONSTRUCTION
         - PATCH AND REPAIR UNUSED PRESENT HOLES AND OPENINGS, AND THOSE LEFT BY THE REMOVAL OF PRESENT EQUIPMENT AND ADMISSION OF NEW EQUIPMENT.
         - PATCH AND REPAIR PRESENT EQUIPMENT, AND BUILDING CONSTRUCTION WHICH HAS NOT BEEN CUT, REMOVED, DISTURBED OR MARRED, AS REQUIRED, TO RESTORE IT TO ORIGINAL CONDITION BEFORE BEING DISTURBED.
      e. UNUSED OPENINGS IN EQUIPMENT, WALLS, CEILING, FLOOR, ETC. SHALL BE FILLED.
      f. PRESENT PAINTED CONSTRUCTION WHICH IS MARRED SHALL BE REPAIRED SAME AS NEW CONSTRUCTION.

E. CERTAIN ABBREVIATIONS OR SYMBOLS, WHEN APPLIED TO PRESENT (TO EXISTING) LINE, DEVICE OR EQUIPMENT, SHALL HAVE THE FOLLOWING MEANINGS:

NC — NEW CONNECTIONS TO PRESENT PIPING, DEVICE WIRING, EQUIPMENT, ETC. INSTALL, TEST, COVER, PAINT, ETC., SAME AS NEW WORK.

P — TO REMAIN UNCHANGED, IF CHANGE CANNOT BE AVOIDED, CHANGE "P" TO "PXR", AT NO INCREASE IN CONTRACT PRICE. VERIFY LOCATION.

PX — TO BE COMPLETELY REMOVED, INCLUDING UNNEEDED CONNECTIONS, PIPING, DUCTS, WIRING, BASES, ETC., OF EVERY KIND. UNUSED OPENINGS PLUGGED OR CAPPED, TESTED, COVERED, PAINTED SAME AS NEW WORK. OTHER DISTURBED WORK OF EVERY KIND RESTORED, PATCHED, TESTED, COVERED, PAINTED, ETC., TO EQUAL ORIGINAL CONDITION. REMOVED MATERIAL MUST NOT BE REUSED UNLESS OTHERWISE SPECIFIED OR DIRECTED BY ENGINEER.

PX-DO — SAME AS "PX", EXCEPT REMOVED, CLEANED AND RESTORED INTACT, AS FAR AS PRACTICAL, MATCHED MARKED, AND OTHERWISE IDENTIFIED AS REQUIRED AND DELIVERED TO OWNER OUTSIDE OF BUILDING AS DIRECTED BY ENGINEER.

PXR — SAME AS "PX", EXCEPT REMOVED, CLEANED AND RESTORED TO GOOD OPERATING CONDITION AND REINSTALLED, SAME AS NEW WORK, IN ORIGINAL POSITION. IF RECONDITIONING IS IMPRACTICAL, PROVIDE NEW DEVICE, AS APPROVED BY ARCHITECT, AT NO INCREASE IN CONTRACT PRICE.

PXS — SAME AS "PX", EXCEPT THAT FOLLOWING CALLED FOR NEW DEVICE SHALL BE SUBSTITUTED.

PXN — SAME AS "PXR" EXCEPT REMOVED, CLEANED AND RESTORED TO GOOD OPERATING ETC. CONDITION AND REINSTALLED SAME AS NEW WORK, IN NEW POSITION MARKED "PN" WITH SAME LETTER. IF RECONDITIONING IS IMPRACTICAL, PROVIDE NEW DEVICE, AS APPROVED BY ARCHITECT, AT NO INCREASE IN CONTRACT PRICE.

PN — COMPLETELY REINSTALL DEVICE, LINE OR DUCT, REMOVED AT "PXN" LOCATION AND ETC. INSTALL AS INDICATED IN NEW LOCATION, SAME AS NEW WORK.

F. WORK OF EVERY DIVISION SHALL BE COORDINATED WITH ALL OTHER WORK AND PRESENT CONDITIONS, SO THAT
   1. ELECTRICAL SERVICES TO PRESENT BUILDINGS OR PORTIONS OF BUILDING WILL NOT BE INTERRUPTED DURING PERIODS WHEN THOSE SERVICES ARE NEEDED.
   2. SPECIAL SYSTEMS SUCH AS FIRE ALARM, SOUND, ETC., OF EVERY KIND TO PRESENT BUILDINGS WILL NOT BE INTERRUPTED DURING WORKING AND/OR OCCUPIED HOURS, EXCEPT AS APPROVED BY THE OWNER.

G. NEW PIPING SERVING NEW AND/OR PRESENT EQUIPMENT IN FINISHED PRESENT ROOMS OR SPACES SHALL BE CONCEALED IN FINISHED ROOMS, WHERE POSSIBLE OR SHALL BE RUN IN ADJOINING UNFINISHED ROOMS, SHAFTS, CHAMBERS, CLOAK ROOMS, ETC., EXCEPT WHERE EXPOSED PIPING IS PERMITTED IN FINISHED PRESENT ROOMS BY ARCHITECT IN WRITING,

H. UNNEEDED EQUIPMENT, PIPING, ETC., SHALL BE COMPLETELY REMOVED; AND CONSTRUCTION PATCHED AS PER NOTE "PX". NEW CONNECTIONS TO PRESENT EQUIPMENT, SHALL BE MADE, TESTED, COVERED, PAINTED, ETC., SAME AS NEW EQUIPMENT. PRESENT EQUIPMENT, AND OTHER COVERING DISTURBED BY CONTRACTOR SHALL BE REPAIRED TO EQUAL NEW CONDITION AND PAINTED SAME AS NEW COVERING.

I. WORK SHALL BE COORDINATED SO THAT HEATING, PLUMBING, ELECTRICAL, INTERNET AND TELEPHONE SERVICES TO THE PRESENT BUILDING WILL NOT BE INTERRUPTED, EXCEPT AS APPROVED BY THE OWNER/ARCHITECT.

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
PLUMBING DEMOLITION PLANS & DEMOLITION NOTES

PROJECT INFORMATION
Date: April 3, 2017
Rev. Date:
RLJA Proj: 2015-052

SHEET NUMBER
P101
OF
4

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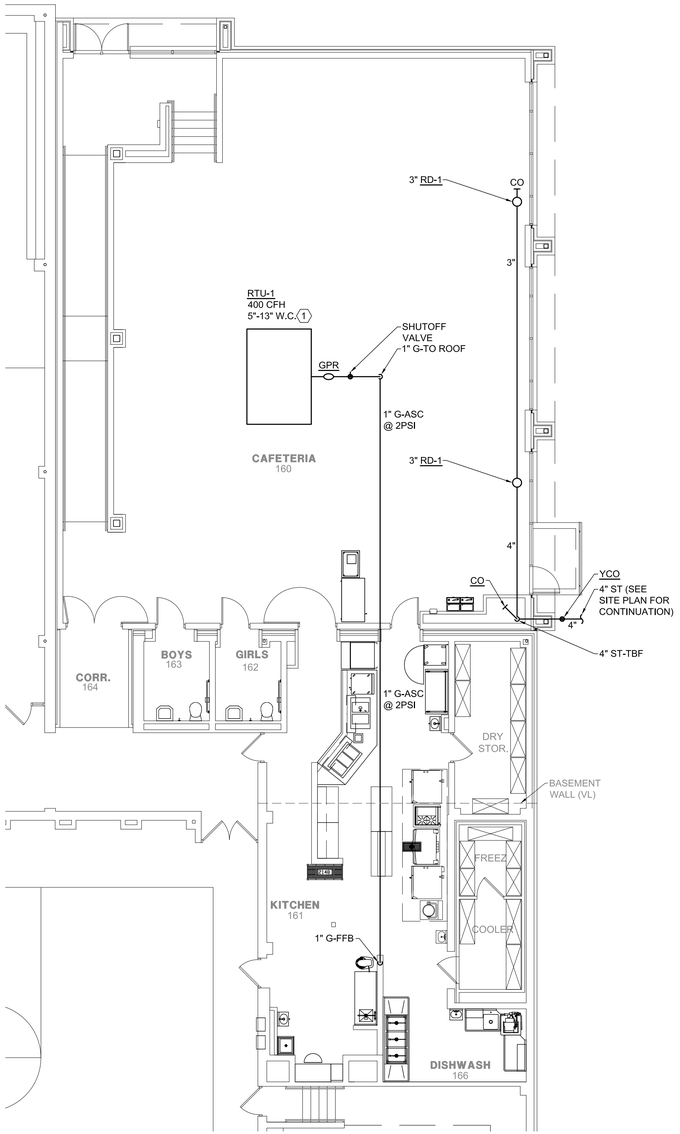
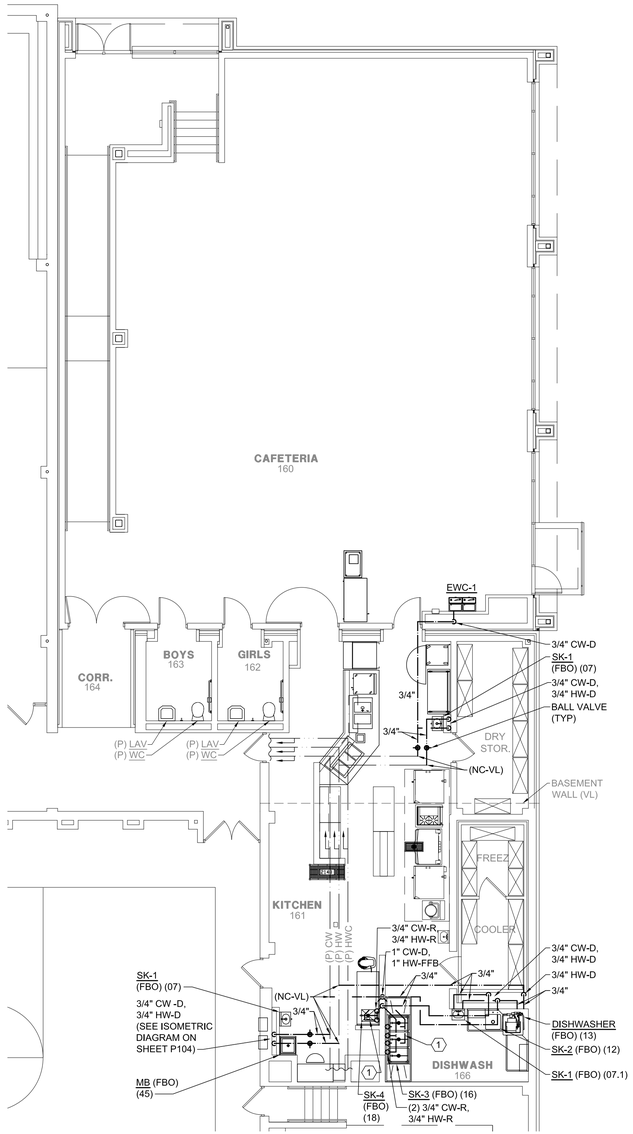


FIRST FLOOR PLAN - STORM & GAS

SCALE: 1/8" = 1'-0"

DRAWING NOTES:

1. CONNECT TO GAS-FIRED EQUIPMENT WITH FULL LINE SIZE GAS COCK, DRIP LEG AND UNION. COORDINATE EXACT LOCATION IN FIELD.

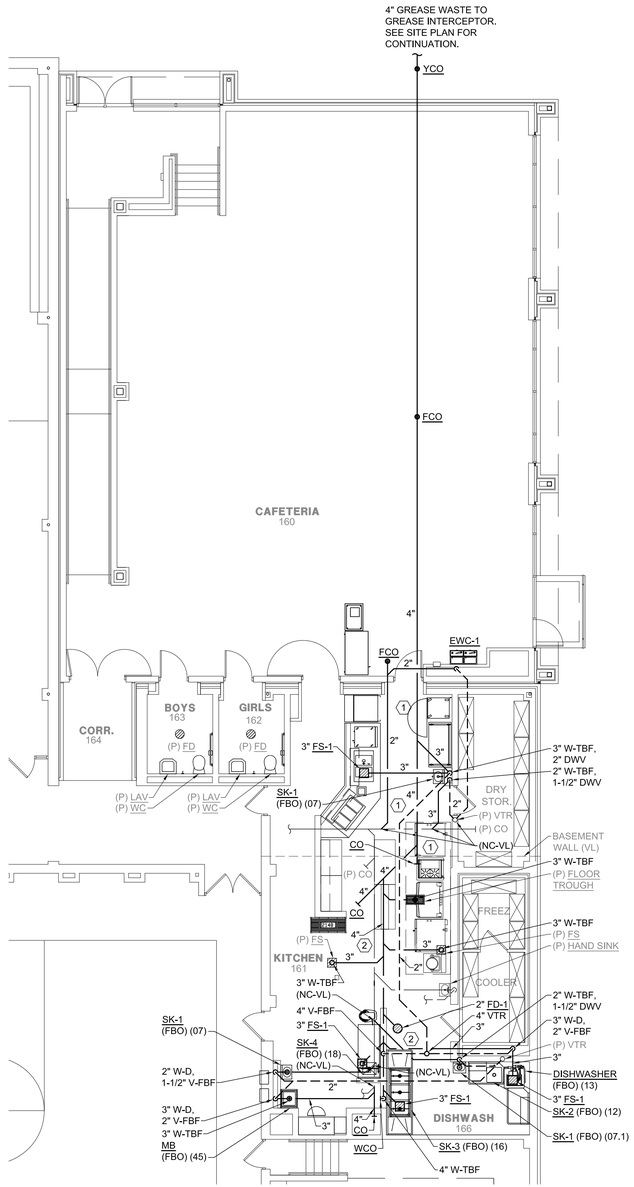


FIRST FLOOR PLAN - WATER

SCALE: 1/8" = 1'-0"

DRAWING NOTES:

1. CW & HW PIPING UNDERCOUNTER-CTW.



FIRST FLOOR PLAN - SANITARY

SCALE: 1/8" = 1'-0"

DRAWING NOTES:

1. CUT & PATCH ANY WALLS OR FLOORS TO MATCH EXISTING.
2. ALL PIPING IN LOWER LEVEL SHALL BE CAST IRON AND PAINTED TO MATCH EXISTING.

CAFETERIA ADDITION AND REMODELING TO

LEWIS LEMON ELEMENTARY SCHOOL

ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION

PLUMBING NEW WORK PLANS

PROJECT INFORMATION	
Date	April 3, 2017
Rev. Date	
RLJA Proj	2015-052

SHEET NUMBER

P102 OF 4

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BASIC ABBREVIATIONS

MARK	DESCRIPTION	MARK	DESCRIPTION
AFF	ABOVE FINISH FLOOR	IWS	IN WALL SPACE
AP	ACCESS PANEL	L	LAVATORY
ASC	ABOVE SUSPENDED CEILING	LT	LAUNDRY TRAY
BBA	BETWEEN BEAMS ABOVE	MB	MOP BASIN
BF	BALANCED FITTING	NC	NEW CONNECTION
BFP	BACKFLOW PREVENTER	P	PRESENT TO REMAIN
BJA	BETWEEN JOISTS ABOVE	PL	PLUG VALVE
BOFE	BOTTOM OF FOOTING ELEVATION	PRV	PRESSURE REDUCING VALVE
BV	BALL VALVE	R	RISE
CA	COMPRESSED AIR	SA	SANITARY SEWER
CKV	CHECK VALVE	SA-G	SANITARY SEWER - GREASE
CTB	CLOSE TO BEAM	SC	SILL COCK
CTC	CLOSE TO CEILING	SCW	SOFT COLD WATER
CTF	CLOSE TO FLOOR	SK	SINK
CTW	CLOSE TO WALL	SMH	SANITARY MANHOLE
CW	COLD WATER	SS	SERVICE SINK
D	DROP	ST	STORM SEWER
DWV	DROP W/ WASTE, RISE W/ VENT	STMH	STORM MANHOLE
EWC	ELECTRIC WATER COOLER	TAF	TO ABOVE FLOOR
FAF	FROM ABOVE FLOOR	TBF	TO BELOW FLOOR
FBF	FROM BELOW FLOOR	TFA	TO FLOOR ABOVE
FBO	FURNISHED BY OTHERS	TFB	TO FLOOR BELOW
FCO	FLOOR CLEANOUT	TMV	THERMOSTATIC MIXING VALVE
FD	FLOOR DRAIN	TW	TEMPERED WATER
FFA	FROM FLOOR ABOVE	UF	UNDER FLOOR
FFB	FROM FLOOR BELOW	UG	UNDER GROUND
FFE	FINISHED FLOOR ELEVATION	UR	URINAL
FGE	FINISH GRADE ELEVATION	UV	UNDERFLOOR VENT
FV	FIELD VERIFY	V	VENT PIPING
G	GAS PIPING	VL	VERIFY LOCATION
GPR	GAS PRESSURE REGULATOR	VB	VACUUM BREAKER
GT	GREASE TRAP	VTR	VENT THRU ROOF
GV	GATE VALVE	W	WASTE PIPING
GWH	GAS WATER HEATER	WC	WATER CLOSET
HD	HUB DRAIN	WCO	WALL CLEANOUT
HW	HOT WATER	WH	WALL HYDRANT
HS	HAND SINK	WM	WATER METER
HV	HOSE VALVE	WT	WATER THERMOMETER
INV	INVERT	YCO	YARD CLEANOUT

SEE SPECIFICATIONS FOR ADDITIONAL ABBREVIATIONS, PREFIXES, SUFFIXES, ETC.

PLUMBING SYMBOLS:

(SEE SPECIFICATIONS FOR ADDITIONAL NOTES, SYMBOLS, ABBREVIATIONS, ETC.)

- CW = COLD WATER
- HW = HOT WATER
- HWC = HOT WATER CIRCULATING
- CA = COMPRESSED AIR
- G = GAS
- = DIRECTION OF SYSTEM FLOW
- = PITCH TO DRAIN AT LOW POINT WITH HV
- BV = BALL VALVE
- PV = PLUG VALVE
- GV = GATE VALVE
- BLV = BALANCING VALVE
- CKV = CHECK VALVE
- GPR = GAS PRESSURE REGULATOR
- UN = UNION
- CD = CONDENSATE DRAIN
- V = VENT
- WCO = WALL CLEANOUT - EXPOSED
- FCO = FLOOR CLEANOUT
- SA = SANITARY SEWER - UNDERGROUND
- SAO = SANITARY SEWER - OVERHEAD
- ST = STORM SEWER
- YCO = YARD CLEANOUT
- FD = FLOOR DRAIN
- HD = HUB DRAIN (FOR SANITARY SEWER SYSTEM)
- = HOSE VALVE
- WH = WALL HYDRANT
- = RISE
- = DROP
- NC = NEW CONNECTION

ALL VENTING AND PIPE SIZES ARE MINIMUMS. ADDITIONAL VENTS SHALL BE ADDED, AND/OR PIPE SIZES SHALL BE INCREASED AS REQUIRED BY APPLICABLE CODES, STATUTES, REGULATIONS, ETC., WITHOUT INCREASE IN CONTRACT PRICE.

PIPING STRAIGHT AND PARALLEL TO WALLS, FREE TO EXPAND AND CONTRACT. WATER LINES MUST DRAIN COMPLETELY THRU LOWER FIXTURE, UNION, BRASS CAP, BRASS PLUG AT LOW POINT, AND MUST VENT COMPLETELY THRU FIXTURE ABOVE OR AIR VENT.

VALVES MUST BE ACCESSIBLE THRU ACCESS DOOR (AD) AND/OR ACCESS PANEL (AP) AS REQUIRED WITH ADJACENT UNIONS FOR REMOVAL OF BODIES.

EQUIPMENT, [EQUIPMENT] = EQUIPMENT NOTE, DESIGNATION, OR ITEM.

-P = EXISTING OR PRESENT EQUIP./ DEVICE/ SERVICE/ LINE

PX = PX OF EXISTING OR PRESENT EQUIP./ DEVICE/ SERVICE/ LINE

PLUMBING GENERAL NOTES:

1. DRAWINGS ARE GENERALLY DIAGRAMMATIC, EACH CONTRACTOR SHALL MAKE DRAWINGS ARE GENERALLY DIAGRAMMATIC, EACH CONTRACTOR SHALL MAKE WITH THE WORK OF OTHER TRADES AND THE BUILDING CONSTRUCTION. ALL CHANGES SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER, FOR PRESENT CONSTRUCTION, VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING TO AVOID CONFLICT. IT IS INTENDED THAT ALL EQUIPMENT, MATERIAL, DEVICES, ETC., SHALL BE LOCATED SYMMETRICALLY WITH THE ARCHITECTURAL ELEMENTS, NOTWITHSTANDING THE FACT THAT LOCATIONS INDICATED BY THESE DRAWINGS MAY BE DISTORTED FOR CLEARNESS OF PRESENTATION.

   CONTRACTOR IS ALLOWED TO MAKE MINOR CHANGES TO THE PIPING TO AVOID FIELD CONFLICTS AT NO ADDITIONAL COST TO THE OWNER AND AS LONG AS THE RELOCATION DOES NOT AFFECT THE PERFORMANCE OF THE SYSTEM.

   EACH CONTRACTOR SHALL CHECK DRAWINGS OF THE OTHER CONTRACTORS TO VERIFY SPACES IN WHICH THEIR WORK WILL BE INSTALLED IS CLEAR OF OBSTRUCTIONS, MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITIONS AT ALL POINTS IN THE BUILDING. WHERE HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE, NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE INSTALLATION.

   FURNISH ALL TRADES ADVANCE INFORMATION ON LOCATIONS AND SIZES OF PIPING, DUCTWORK, EQUIPMENT, FRAMES, BOXES, SLEEVES AND OPENINGS NEEDED FOR WORK, AND ALSO FURNISH INFORMATION AND SHOP DRAWINGS TO PERMIT TRADES AFFECTED TO INSTALL THEIR WORK PROPERLY AND WITHOUT DELAY.

   WHERE THERE IS EVIDENCE THAT WORK OF ONE CONTRACTOR WILL INTERFERE WITH THE WORK OF OTHER CONTRACTORS, EACH SHALL ASSIST IN WORKING OUT SPACE CONDITIONS TO MAKE SATISFACTORY ADJUSTMENTS.

   CONTRACTOR TO REVIEW, PRIOR TO BIDDING, ALL DRAWINGS TO COORDINATE VARIOUS WORK AS CALLED FOR. CONTRACTOR SHALL CAREFULLY CHECK ALL DRAWINGS FOR ALL TRADES, AND ANY LACK OF COORDINATION BETWEEN HIS WORK AND DRAWINGS FOR JOB CONDITIONS SHALL BE IMMEDIATELY REPORTED TO ARCHITECT.

   CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING, INCLUDING CORE DRILLING, SAW CUTTING, ETC., AS REQUIRED TO ACCOMMODATE HIS WORK. CUTTING AND PATCHING AND PAYMENT OF SAID WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR REQUIRING THE DISTURBANCE BUT SAME SHALL BE DONE BY A GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE APPROPRIATE PLUMBING CONTRACTOR TO GIVE QUANTITIES OF PATCHING REQUIREMENTS TO A GENERAL CONTRACTOR. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

   CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF PRESENT CEILINGS, LIGHT FIXTURES, DIFFUSERS, DUCTWORK, PIPING, CONDUIT, ETC., AS REQUIRED FOR THE INSTALLATION OF HIS WORK. REMOVAL, REPLACEMENT AND PAYMENT FOR MECHANICAL/ELECTRICAL ITEMS SHALL BE THE RESPONSIBILITY OF THE APPLICABLE PLUMBING CONTRACTOR. REMOVAL AND REPLACEMENT OF PRESENT CEILINGS, ETC., SHALL BE THE RESPONSIBILITY OF CONTRACTOR MAKING THE DISTURBANCE BUT SAME SHALL BE DONE BY A GENERAL CONTRACTOR, IT SHALL BE THE RESPONSIBILITY OF THE APPROPRIATE PLUMBING CONTRACTOR TO GIVE QUANTITIES OF REMOVAL/REPLACEMENT REQUIREMENTS TO A GENERAL CONTRACTOR.

2. THE INSTALLATION OF ALL PIPING SHALL MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS IT PERTAINS WITH CLEARANCE OF PIPING IN RELATIONSHIP TO ELECTRICAL EQUIPMENT, SWITCHGEAR, PANELS, ETC. PIPING SHALL NOT CROSS OVER THE TOP OR IMPINGE UPON THE ELECTRICAL EQUIPMENT.

3. ALL WATER LINES SHALL DRAIN COMPLETELY THROUGH LOWER FIXTURES, UNIONS, BRASS CAP OR PLUG AT LOW POINTS AND MUST VENT COMPLETELY THROUGH FIXTURE ABOVE AIR VENT.

4. PROVIDE LINE SIZE AIR CHAMBERS FOR ALL FIXTURES. AIR CHAMBERS SHALL BE MINIMUM 18" IN LENGTH.

5. PROVIDE ALL REQUIRED CLEANOUTS AS REQUIRED BY CODE. UNDERGROUND CLEANOUTS TO HAVE WYE FITTINGS AND ALL HORIZONTAL DRAINS TO HAVE CLEANOUTS.

6. NO UNDERGROUND SANITARY PIPING IS TO BE LESS THAN 2". CONFIRM WITH LOCAL CODE REQUIREMENTS. INSTALL AS REQUIRED.

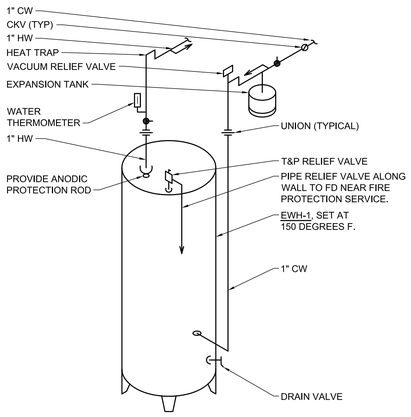
7. PROVIDE TRAP REQUIREMENTS AS REQUIRED BY CODE.

8. BACKFLOW PREVENTERS FOR ICE MAKER, COFFEE MACHINE, VENDING EQUIPMENT, WATER SOFTENER, ETC., TO BE LINE SIZE AND EQUIVALENT TO FEBCO MODEL 850, WATTS SERIES 007 ASSE-1015 DOUBLE CHECK ASSEMBLY OR WATTS SERIES 7, WILKINS 700 SERIES DUAL CHECK VALVE. BACKFLOW PREVENTERS FOR CARBONATOR/SODA MACHINES TO BE STAINLESS STEEL DUAL CHECK VALVES WITH ATMOSPHERIC VENT EQUIVALENT TO WILKINS MODEL 740, WATTS SERIES SD-3. BACKFLOW PREVENTERS FOR CHILLER, BOILER, BLOW DOWN SEPERATOR, CONDENSATE RETURN, AND OTHER SIMILAR HAZARD CATEGORIES SHALL BE LINE SIZE AND EQUAL TO WATTS SERIES 009 ASSE-1013 RPZ ASSEMBLIES. VERIFY/CONFIRM WITH LOCAL CODE REQUIREMENTS FOR INSTALLATIONS.

9. PROVIDE WATER HAMMER ARRESTORS AND INSTALL AS REQUIRED PER CODE. ARRESTORS TO BE LINE SIZE AND EQUIVALENT TO ZURN-1700 SERIES.

10. PROVIDE LINE SIZE THERMOSTATIC MIXING VALVE(S) PER ANSI/ASSE 1016-1990 SINGLE USE AND/OR 1017-1990 MULTI-USE AND/OR 1071 EMERGENCY FIXTURES. VALVE(S) MUST CONTAIN MANUFACTURER'S STAMP SHOWING COMPLIANCE WITH APPLICABLE ANSI/ASSE STANDARDS. VALVE(S) TO BE USED AT LAVATORIES, HAND SINKS, ETC, WHERE DOMESTIC HOT WATER EXCEEDS 120 DEGREES F. INSTALL AS RECOMMENDED BY MANUFACTURER. UNIT IS ADJUSTABLE AND IS TO BE FIELD SET AT 105 DEGREES F OR AS PER LOCAL CODE. EQUIVALENT TO LEONARD TYPE TM FOR HIGH FLOW GREATER THAN 9 GPM OR MODEL 210 FOR LOW FLOW LESS THAN 9 GPM, BRADLEY, SYMMONS, MAXLINE, WILKINS OR EQUIVALENT.

11. ALL VENT CONNECTIONS TO HORIZONTAL DRAIN PIPING SHALL BE AT A POINT ABOVE CENTER LINE ON THE DRAIN PIPING AS REQUIRED PER CODE.



ELECTRIC WATER HEATER (EWH-1) DETAIL

NO SCALE

12. CROSS CONNECTION CONTROL DEVICES SHALL BE USED AND INSTALLED AS REQUIRED BY CODE.

13. UNUSED OPENINGS IN DUCTS, SEWERS, MANHOLES, ETC., SHALL BE CAPPED; THOSE IN PIPING SHALL BE CAPPED OR PLUGGED; THOSE IN CONDUITS, BOXES, CABINETS AND PANELS SHALL BE FILLED. STRUCTURAL MEMBRANES AND SUPPORTS SHALL NOT BE CUT UNLESS AUTHORIZED BY ARCHITECT, IN WRITING.

14. PRESENT PAINTED CONSTRUCTION WHICH IS MARRED SHALL BE REPAINTED SAME AS NEW CONSTRUCTION.

15. THE ENGINEER IS NOT PROVIDING PROJECT ADMINISTRATION OR ANY FORM OF PROJECT MANAGEMENT FOR THE CONSTRUCTION OF THIS BUILDING. THE USE OF THESE DRAWINGS BY ANY CONTRACTOR, SUB-CONTRACTOR, BUILDERS, TRADESMEN OR WORKER SHALL INSTIGATE A HOLD HARMLESS AGREEMENT BETWEEN THE DRAWING USER AND THE ENGINEER.

16. THE USER OF THESE DRAWINGS AGREES TO HOLD THE ENGINEER HARMLESS FOR ANY RESPONSIBILITY IN REGARD TO CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES AND FOR ANY SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK AND FURTHER SHALL HOLD THE ENGINEER HARMLESS FOR COST AND PROBLEMS ARISING FROM THE NEGLIGENCE OF CONTRACTOR, SUBCONTRACTOR, TRADESMEN OR WORKMEN. THE USE OF THESE DRAWINGS ALSO IMPLIES THAT THE ENGINEER SHALL TAKE NO RESPONSIBILITY FOR THE PLANNED USER'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE DRAWINGS CONTRACT DOCUMENTS.

17. SEE SPECIFICATIONS FOR ADDITIONAL NOTES, SYMBOLS, ABBREVIATIONS, PREFIXES AND SUFFIXES.

18. EQUIPMENT INSTALLATION (FBO) - FURNISHED BY OTHERS:
    EQUIPMENT MARKED (FBO) SHALL BE FURNISHED AND INSTALLED BY GENERAL CONTRACTOR.

    THE EXACT LOCATIONS FOR APPARATUS, FIXTURES, EQUIPMENT AND PIPING SHALL BE OBTAINED FROM THE GENERAL CONTRACTOR OR HIS REPRESENTATIVE IN THE FIELD, AND THE WORK SHALL BE LAID OUT ACCORDINGLY, IF THIS CONTRACTOR SHOULD FAIL TO ASCERTAIN SUCH LOCATIONS BEFORE PROCEEDING WITH HIS WORK, AND IF THIS WORK DOES NOT CONFORM TO THE INTENDED DESIGN, THIS CONTRACTOR SHALL REVISE HIS WORK, AT NO ADDITIONAL COST, AS DIRECTED BY THE OWNER. THE OWNER RESERVES THE RIGHT TO MAKE MINOR CHANGES IN THE LOCATIONS OF PIPING AND EQUIPMENT, UP TO THE TIME OF ROUGHING-IN AND INSTALLATION, WITHOUT ADDITIONAL CHARGE.

    WORK BY GENERAL CONTRACTOR: THE FOLLOWING MATERIAL AND EQUIPMENT WILL BE FURNISHED; THE FOLLOWING INSTALLATION WORK WILL BE DONE; AND THE FOLLOWING OTHER WORK WILL BE DONE BY THE GENERAL CONTRACTOR AT NO EXPENSE TO ANY OTHER CONTRACTOR.

    A. FURNISHING, INSTALLING, FITTING TO THE BUILDING, SETTING, BOLTING IN PLACE OF EQUIPMENT MARKED "FBO."
    B. FURNISHING TO THE PLUMBING CONTRACTOR, ON THE JOB, LOOSE PLUMBING TRIM INCLUDING ALL ABOVE DECK FAUCETS, VACUUM BREAKERS, GAS COCKS, AUTOMATIC VALVES, ETC., FOR EQUIPMENT MARKED (FBO).
    C. FURNISHING OF APPROVED DETAILED SHOP DRAWINGS SHOWING METHOD OF INSTALLING LOOSE TRIM AND MAKING OF FINAL CONNECTIONS; WIRING AND CONTROL DIAGRAM, FOR EQUIPMENT MARKED (FBO).

    PLUMBING CONTRACTORS SHALL CAREFULLY CHECK THE LOOSE TRIM DELIVERED TO THEM AGAINST THE APPROVED SHOP AND OTHER DRAWINGS AND SHALL REPORT ANY DISCREPANCIES OR SHORTAGES, OR LACK OF DATA TO THE GENERAL CONTRACTOR AND TO THE ARCHITECT FOR ADJUSTMENT, WITHIN ONE WEEK AFTER DEVICES ARE RECEIVED. IF SUCH A REPORT IS NOT MADE WITHIN ONE WEEK, IT WILL BE ASSUMED THAT NO SHORTAGES, DISCREPANCIES OR LACK OF DATA HAS BEEN FOUND, AND THE SUB-CONTRACTOR WILL BE REQUIRED TO MAKE GOOD ANY SHORTAGES, DISCREPANCIES, OR LACK OF DATA AT A LATER DATE.

    ALL EQUIPMENT FURNISHED BY OTHERS (FBO) SHALL BE PROVIDED WITH PROPER WATER, SANITARY, AND VENT PIPING, DRAINS, TRAPS, ESCUCHEON PLATES, VALVES, AND ALL OTHER APPURTENANCES REQUIRED FOR A COMPLETE INSTALLAITON. WORK BY PLUMBING CONTRACTOR; PLUMBING CONTRACTOR SHALL PROVIDE ALL PLUMBING CONNECTIONS - TRAPS AND BELOW DECK SUPPLIES AND SHUT-OFF VALVES. MAKE ALL FINAL CONNECTIONS AND INSTALL GAS PIPING AND LOOSE GAS SHUT-OFF VALVES, AND PERFORM TESTING, THE PLUMBING CONTRACTOR SHALL PIPE ALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS FOR A COMPLETE OPERATING INSTALLATION. PLUMBING CONTRACTOR SHALL VERIFY AND COORDINATE PIPING CHARACTERISTICS AND REQUIREMENTS OF (FBO) EQUIPMENT PRIOR TO ROUGH-IN OF PIPING TO AVOID CONFLICTS.

19. SEE ARCOHITECTUTAL CODE PLANS FOR WALL FIRE RATINGS. WHERE CONDUIT, PIPES, ETC. PASS THROUGH FIRE-RATED WALLS, PARTITIONS, FLOORS AND CEILINGS, SEAL OPENINGS IN ACCORDANCE WITH ICC, NEC, SPECIFICATIONS AND LOCAL REQUIREMENTS.

20. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING, INCLUDING CORE DRILLING, SAW CUTTING, ETC., AS REQUIRED TO ACCOMMODATE HIS WORK. CUTTING AND PATCHING AND PAYMENT OF SAID WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR REQUIRING THE DISTURBANCE BUT SAME SHALL BE DONE BY A GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO GIVE QUANTITIES OF PATCHING REQUIREMENTS TO A GENERAL CONTRACTOR.

    CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF PRESENT CEILINGS, LIGHT FIXTURES, DIFFUSERS, DUCTWORK, PIPING, CONDUIT, ETC., AS REQUIRED FOR THE INSTALLATION OF HIS WORK. REMOVAL, REPLACEMENT AND PAYMENT FOR MECHANICAL/ELECTRICAL ITEMS SHALL BE THE RESPONSIBILITY OF THE APPLICABLE PLUMBING CONTRACTOR. REMOVAL AND REPLACEMENT OF PRESENT CEILINGS, ETC., SHALL BE THE RESPONSIBILITY OF CONTRACTOR MAKING THE DISTURBANCE BUT SAME SHALL BE DONE BY A GENERAL CONTRACTOR, IT SHALL BE THE RESPONSIBILITY OF THE APPROPRIATE PLUMBING CONTRACTOR TO GIVE QUANTITIES OF REMOVAL/REPLACEMENT REQUIREMENTS TO A GENERAL CONTRACTOR.

21. CONTRACTOR TO MAKE THE DISTRICT AWARE OF ANY CODE VIOLATIONS FOUND DURING CONSTRUCTION. CONTRACTOR WILL BE DIRECTED HOW TO PROCEED AFTER ANY ISSUE HAS BEEN INVESTIGATED BY THE DISTRICT.

CLEANOUT SCHEDULE:

A. ACCEPTABLE MANUFACTURERS: JOSAM, OATEY, SMITH, WADE, WATTS, ZURN.

B. CONCRETE FLOOR CLEANOUT: CAST IRON, THREADED OR INSIDE CAULK AT GRADE ADJUSTABLE HOUSING, FERRULE WITH PLUG, MEDIUM DUTY CAST IRON SECURED SCORED COVER, VANDAL PROOF. SMITH NO. 4245.

C. VINYL TILE FLOOR CLEANOUT: CAST IRON, THREADED OR INSIDE CAULK AT GRADE ADJUSTABLE HOUSING, FERRULE WITH PLUG, ROUND LIGHT DUTY NICKEL BRASS TOP RECESSED FOR TILE, VANDAL PROOF, SMITH NO. 4145.

D. WALL CLEANOUT: CLEANOUT BRASS PLUG, ROUND STAINLESS STEEL ACCESS COVER, VANDAL PROOF. SMITH NO. 4472.

FLOOR AND ROOF DRAIN SCHEDULE:

A. ACCEPTABLE MANUFACTURERS: MILFAB, JOSAM, OATEY, POLYCAST, POLYDRAIN, SMITH, WADE, WATTS, ZURN.

B. FD-1: CAST IRON FLANGE, NICKEL BRASS, 6" ROUND STRAINER WITH BOTTOM OUTLET, SEPARATE P-TRAP, FLASHED, FLUSH WITH FLOOR. PRO VENT TRAP GUARD TG-33-Z. ZURN NO. Z-415-B.

C. FS-1: CAST IRON BODY, MEDIUM DUTY 12"x12"x6" DEEP, SQUARE SLOTTED GRATE WITH WHITE ACID RESISTING PORCELAIN ENAMEL INTERIOR AND TOP. ALUMINUM ANTI SPLASH INTERIOR BOTTOM DOME STRAINER, BOTTOM OUTLET, SEPARATE P-TRAP, FLASHED ZURN Z-1900 SANI-FLOR RECEPTOR. CONTRACTOR TO VERIFY GRATE TYPE (1/2 OR 3/4 OR FULL) OR SMITH 3420.

D. RD-1: CAST IRON BODY WITH COMBINED FLASHING CLAMP AND GRAVEL STOP, FLASHING RING, CAST IRON LOW DOME, BOTTOM OUTLET, UNDERDECK CLAMP. ZURN No. Z-100-C..

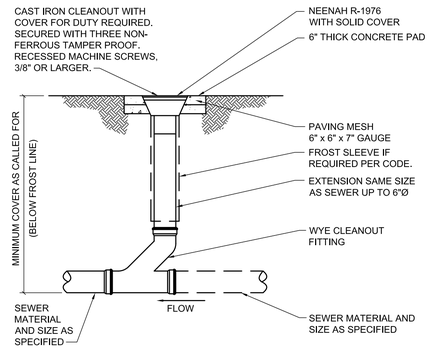
WATER HEATER SCHEDULE:

A. ACCEPTABLE MANUFACTURERS: BRADFORD WHITE. CHRONOMITE, EEMAX, LOCHINVAR, RHEEM, RUUD, SMITH, STATE. CONFIRM/VERIFY SIZE WITH MANUFACTURER FOR PROJECT USAGE/SIZING.

B. EWH-1: 50 GALLON STORAGE, 154 GPH RECOVERY AT 40 DEGREES F. RISE (110 DEG. TO 150 DEG), 3-YEAR WARRANTY, THREE ELEMENT OPERATION, (3) 5KW ELEMENTS, 41.6 FLA, 208/3/60. 265 LBS SHIPPING WEIGHT. TO MEET THE MINIMUM REQUIREMENTS ASHRAE 90A, A.O. SMITH DRE-52-15.

C. WATER THERMOMETER: ADJUSTABLE ANGLE, 3/4" SEPARABLE SOCKET, RED READING MERCURY, 9" LONG. 30-180 DEGREE F. RANGE. ACCEPTABLE MANUFACTURERS: ASHCROFT, MOELLER, TRERICE.

D. ET-1: WELDED STEEL TANK WITH HEAVY DUTY BUTYL DIAPHRAGM SEPARATING AIR AND WATER RESERVOIRS. RIGID POLYPROPYLENE-LINED WATER RESERVOIR, AIR CHARGING VALVE. 3/4" WATER INLET, 3.2 GALLON CAPACITY. PRE-CHARGED TO 50 PSIG. AMTROL MODEL NO. ST-8.



YARD CLEANOUT (YCO) DETAIL

NO SCALE

CAFETERIA ADDITION AND REMODELING TO

LEWIS LEMON ELEMENTARY SCHOOL

ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION

PLUMBING ABBREVS., SYMBOLS, GENERAL NOTES, & NOTES

PROJECT INFORMATION

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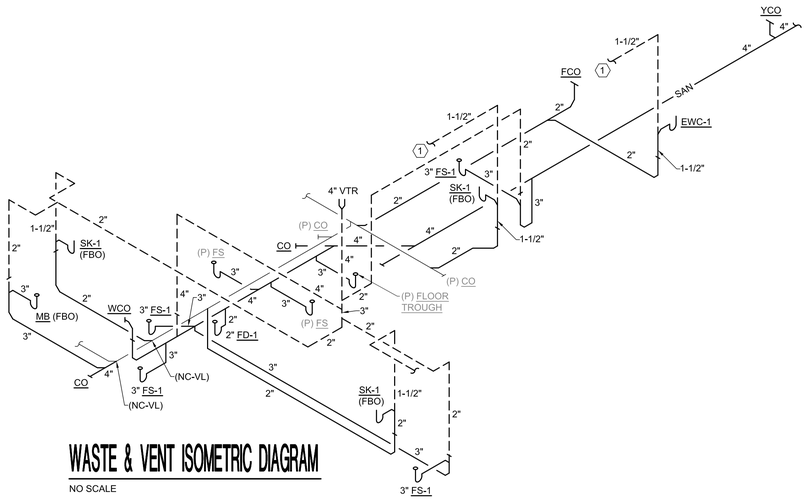
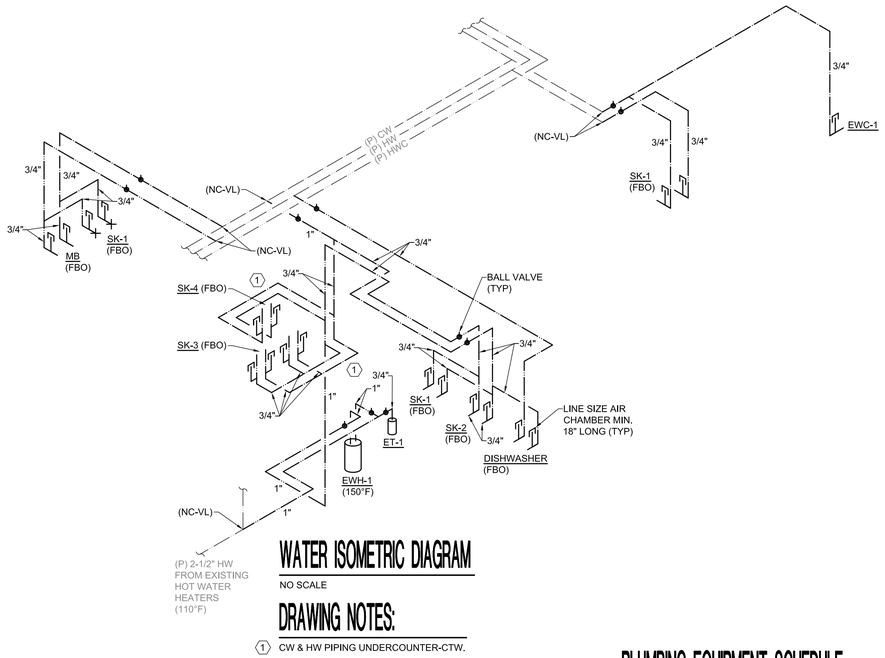


WASTE & VENT ISOMETRIC DIAGRAM

NO SCALE

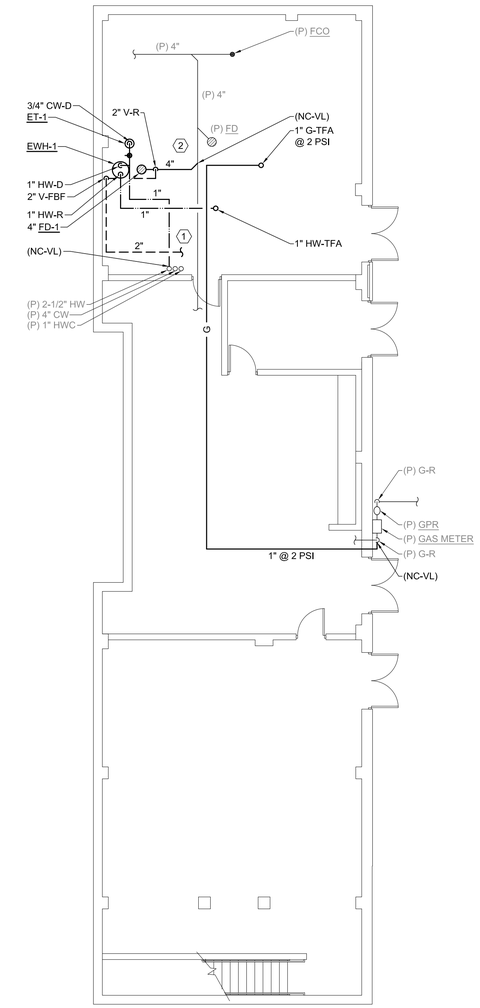


WATER ISOMETRIC DIAGRAM

NO SCALE

DRAWING NOTES:

1. CW & HW PIPING UNDERCOUNTER-CTW.



BASEMENT PLAN - GAS

SCALE: 1/8" = 1'-0"

DRAWING NOTES:

1. CONNECT VENT INTO NEAREST VENT OF EQUAL OR GREATER SIZE. (NC-VL)
2. ALL WASTE PIPING IN THIS ROOM TO BE CAST IRON AND PAINTED TO MATCH EXISTING.

PLUMBING FIXTURE SCHEDULE:

ACCEPTABLE MANUFACTURERS:

1. ELECTRIC WATER COOLERS: ELKAY, HAWS, HALSEY TAYLOR, OASIS, SUNROC.
2. CHAIR CARRIERS: JOSAM, SMITH, WADE, WATTS, ZURN EZCARRY.
3. STRAINERS: EBC, MCGUIRE, SPEEDWAY.
4. SUPPLIES: EBC, MCGUIRE, SPEEDWAY.
5. TRAPS: EBC, MCGUIRE, SPEEDWAY.
6. PIPE GUARD: BROCAR, MCGUIRE, TRUEBRO.

EWC-1 DUAL LEVEL BARRIER FREE WALL HUNG WITH CHAIR CARRIER AND SUPPORT BACKING, SET AT ELEVATIONS INDICATED BY ARCHITECT. ALL STAINLESS STEEL, ELEVATED ANTI-SQUIRT BUBBLER WITH AUTOMATIC STREAM REGULATOR, PUSH BAR OPERATION, 8.0 GPH, 3.7 FLA. AT 120/1/60. ELKAY NO. EZSTL8C OR EQUIVALENT.
SUPPLIES: 1/2" x 3/8" ANGLE VALVE, 3/8" FLEXIBLE RISER, LOOSE KEY STOP, ESCUTCHEON, POLISHED CHROME PLATED, MCGUIRE NO. 2165CCLK.
TRAP: 1-1/4" SEMI-CAST BRASS 17 GAUGE CHROME PLATED P-TRAP WITH GASKETED CLEANOUT PLUG AND ESCUTCHEON. MCGUIRE NO. 8872.
SUPPORT: CHAIR CARRIER WITH STEEL UPRIGHTS WITH ADJUSTABLE SUPPORT PLATES. SYSTEM SHALL BE COMPLETE WITH HEAVY CAST IRON FEET AND MOUNTING FASTENERS. SMITH NO. 834.

SK-1 WASTE: STAINLESS STEEL PERFORATED BASKET STRAINERS. ELKAY NO. LK-35.
SUPPLIES: 1/2" x 3/8" ANGLE VALVE, 3/8" FLEXIBLE RISER, WHEEL HANDLE STOP, ESCUTCHEON, POLISHED CHROME PLATED. MCGUIRE NO. 2165CC.
TRAP: 1-1/2" 17 GAUGE SEMI-CAST OFFSET AND ADJUSTABLE P-TRAP W/ GASKETED CLEANOUT PLUG & ESCUTCHEON. MCGUIRE NO. 8912.
PIPE GUARD: INSULATION AND FASTENER SYSTEM FOR COLD WATER AND HOT WATER ANGLE VALVE SUPPLIES AND FOR P-TRAP INSTALLATION, AS REQUIRED TO MEET THE REQUIREMENTS FOR BURN AND IMPACT PROTECTION. PROWRAP, MCGUIRE NO. PW1000WC, OFFSET AND PW2150, P-TRAP.

SK-2 WASTE: STAINLESS STEEL PERFORATED BASKET STRAINERS. ELKAY NO. LK-35.
SUPPLIES: 1/2" x 3/8" ANGLE VALVE, 3/8" FLEXIBLE RISER, WHEEL HANDLE STOP, ESCUTCHEON, POLISHED CHROME PLATED. MCGUIRE NO. 2165CC.
TRAP: 1-1/2" 17 GAUGE SEMI-CAST OFFSET AND ADJUSTABLE P-TRAP W/ GASKETED CLEANOUT PLUG & ESCUTCHEON. MCGUIRE NO. 8912. (PROVIDE ACCESSORY DRAIN PIECES FOR DOUBLE COMPARTMENT.)
PIPE GUARD: INSULATION AND FASTENER SYSTEM FOR COLD WATER AND HOT WATER ANGLE VALVE SUPPLIES AND FOR P-TRAP INSTALLATION, AS REQUIRED TO MEET THE REQUIREMENTS FOR BURN AND IMPACT PROTECTION. PROWRAP, MCGUIRE NO. PW1000WC, OFFSET AND PW2150, P-TRAP.

SK-3 SUPPLIES: 3/8" COPPER PIPE CONNECTION WITH BALL VALVE SHUT-OFF VALVES TO EACH FAUCET.
STRAINERS: 1-1/2" CHROME PLATED TAILPIECE WITH STAINLESS STEEL BASKET STRAINER. MCGUIRE NO. 151-A. (PROVIDE ACCESSORY DRAIN PIECES FOR TRIPLE COMPARTMENT.)

SK-4 WASTE: STAINLESS STEEL PERFORATED BASKET STRAINERS. ELKAY NO. LK-35.
SUPPLIES: 1/2" x 3/8" ANGLE VALVE, 3/8" FLEXIBLE RISER, WHEEL HANDLE STOP, ESCUTCHEON, POLISHED CHROME PLATED. MCGUIRE NO. 2165CC.
TRAP: 1-1/2" 17 GAUGE SEMI-CAST OFFSET AND ADJUSTABLE P-TRAP W/ GASKETED CLEANOUT PLUG & ESCUTCHEON. MCGUIRE NO. 8912. (PROVIDE ACCESSORY DRAIN PIECES FOR DOUBLE COMPARTMENT.)
PIPE GUARD: INSULATION AND FASTENER SYSTEM FOR COLD WATER AND HOT WATER ANGLE VALVE SUPPLIES AND FOR P-TRAP INSTALLATION, AS REQUIRED TO MEET THE REQUIREMENTS FOR BURN AND IMPACT PROTECTION. PROWRAP, MCGUIRE NO. PW1000WC, OFFSET AND PW2150, P-TRAP.

PLUMBING EQUIPMENT SCHEDULE:

PLUMBING LOAD SCHEDULE

ITEM NO	QTY	EQUIPMENT CATEGORY	EQUIPMENT REMARKS	COLD WATER SIZE (IN)	COLD WATER AFF (IN)	HOT WATER SIZE (IN)	HOT WATER AFF (IN)	DIRECT DRAIN SIZE (IN)	DIRECT DRAIN AFF (IN)	INDIR DRAIN SIZE (IN)	PLUMBING REMARKS	ITEM NO
07	1	SINK, HAND, WALL MOUNT	PROVIDED BY RPS, INSTALLED BY GC	0.5	34	0.5	34	1.5	24			07
07.1	1	HAND SINK	EXISTING RELOCATED	0.5	34	0.5	34	1.5	24			07.1
09	1	DISHTABLE, STRAIGHT		0.5	30	0.5	30			1.5	FS REQ'D	09
12	1	PRE-RINSE FAUCET, WALL MOUNT	PROVIDED BY RPS, INSTALLED BY GC	0.5	40	0.5	40					12
13	1	WAREWASHER, DOOR TYPE, HIGH TEMP	CORNER UNIT, PROVIDED BY RPS, INSTALLED BY GC	0.5	73.25	0.5	42.25			1.5	FS REQ'D	13
16	1	SINK, SCULLERY, 3 COMPARTMENTS	PROVIDED BY RPS, INSTALLED BY GC							X	DRAIN THROUGH GREASE TRAP	16
17	1	FAUCET, BACKSPLASH MOUNT	PROVIDED BY RPS, INSTALLED BY GC	0.5	40	0.5	40					17
18	1	DRAIN, LEVER HANDLE, W/ OVERFLOW	PROVIDED BY RPS, INSTALLED BY GC							2	FS REQ'D	18
36	1	DROP-IN, HOT WELLS								1	FS REQ'D	36
37	1	DROP-IN, HOT/COLD UNIT								0.5	FS REQ'D	37
45	1	MOP SINK STORAGE CABINET		0.5		0.5		2	0.5			45

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
PLUMBING SCHEDULE AND ISOMETRIC DIAGRAMS

PROJECT INFORMATION
Date: April 3, 2017
Rev. Date:
RLJA Proj: 2015-052

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SYSTEMS DESIGN SERVICE ENGINEERING LLP
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ALTERNATE BID #1
SITE PLAN - LIGHTING DEMOLITION

SCALE: 1" = 20'-0"

ALTERNATE BID #1
SITE PLAN - EXISTING AND NEW WORK LIGHTING

SCALE: 1" = 20'-0"

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON
ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION

ALTERNATE BID #1
SITE LIGHTING PLAN
EXISTING AND NEW WORK

PROJECT INFORMATION

Date	April 3, 2017
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PRESENT EQUIPMENT AND DEMOLITION NOTES FOR TELECOMMUNICATIONS

A. FOLLOWING REMOVED PRESENT EQUIPMENT AND MATERIALS WHICH ARE IN GOOD OPERATING CONDITION (OR ARE PLACED IN GOOD CONDITION), SUITABLE, MEET REQUIREMENTS OF THESE SPECIFICATIONS, AND ARE APPROVED IN WRITING BY ENGINEER, OR CALLED FOR MAY BE REUSED (PXN-PN).
   1. CABLE

B. REMOVED CABLE MAY BE REUSED ONLY IF ITCAN BE RE-TERMINATED WITHOUT SPLICES OR CABLE STRESS.

C. ANY OF ABOVE EQUIPMENT WHICH IS NOT REUSED AND FOLLOWING REMOVED PRESENT EQUIPMENT SHALL BECOME PROPERTY OF CONTRACTOR, AND SHALL BE REMOVED FROM PREMISES BY HIM (PX).
   1. WALL PLATES, JACKS, AND EQUIPMENT SO DESIGNATED ON DRAWINGS.

D. FOLLOWING PRESENT EQUIPMENT SHALL BE CAREFULLY REMOVED, INTACT, MATCH MARKED, INSOFAR AS IS PRACTICAL, SHALL REMAIN PROPERTY OF OWNER, AND SHALL BE DELIVERED TO OWNER OUTSIDE OF BUILDING WHERE DIRECTED BY THE ENGINEER (PX-DO).
   1. EQUIPMENT SO DESIGNATED ON DRAWINGS.

E. CONTRACTOR SHALL:
   1. PROVIDE NEW FLOORS UNDER REMOVED PRESENT EQUIPMENT AND WHERE CALLED FOR
   2. REPAIR FLOORS UNDER AND WALLS ADJACENT TO REMOVED EQUIPMENT, TO MATCH ADJACENT CONSTRUCTION.
   3. FILL IN PRESENT CHASES WHICH ARE NO LONGER REQUIRED AND NEATLY PATCH TO MATCH ADJACENT CONSTRUCTION.
   4. CUT OPENINGS REQUIRED FOR:
      A. HIS WORK;
      B. ADMISSION OF NEW EQUIPMENT;
      C. REMOVAL OF PRESENT EQUIPMENT;
      D. NEW CONNECTION TO PRESENT CONSTRUCTION.
   5. PATCH AND REPAIR UNUSED PRESENT HOLES AND OPENINGS, AND THOSE LEFT BY THE REMOVAL OF PRESENT EQUIPMENT AND ADMISSION OF NEW EQUIPMENT.
   6. PATCH AND REPAIR PRESENT EQUIPMENT, AND BUILDING CONSTRUCTION WHICH HAS NOT BEEN CUT, REMOVED, DISTURBED OR MARRED, AS REQUIRED, TO RESTORE IT TO ORIGINAL CONDITION BEFORE BEING DISTURBED.

F. UNUSED OPENINGS IN ENCLOSURES, IN CONDUITS, BOXES, CABINETS, AND PANELS SHALL BE FILLED.

G. PRESENT PAINTED CONSTRUCTION WHICH IS MARRED SHALL BE REPAIRED SAME AS NEW CONSTRUCTION.

H. CERTAIN ABBREVIATIONS OR SYMBOLS, WHEN APPLIED TO PRESENT (TO EXISTING) LINE, DEVICE OR EQUIPMENT, SHALL HAVE THE FOLLOWING MEANINGS.

NC	NEW CONNECTIONS TO PRESENT PIPING, DEVICE WIRING, EQUIPMENT, ETC. INSTALL, TEST, COVER, PAINT, ETC., SAME AS NEW WORK.
P	TO REMAIN UNCHANGED, IF CHANGE CANNOT BE AVOIDED, CHANGE "P" TO "PXR", AT NO INCREASE IN CONTRACT PRICE, VERIFY LOCATION.
PX	TO BE COMPLETELY REMOVED, INCLUDING UNNEEDED CONNECTIONS, PIPING, JACKS, WIRING, LABELS, ETC., OF EVERY KIND, UNUSED OPENINGS PLUGGED OR CAPPED, TESTED, COVERED, PAINTED SAME AS NEW WORK, OTHER DISTURBED WORK OF EVERY KIND RESTORED, PATCHED, TESTED, COVERED, PAINTED, ETC., TO EQUAL ORIGINAL CONDITION. REMOVED MATERIAL MUST NOT BE REUSED UNLESS OTHERWISE SPECIFIED OR DIRECTED BY ENGINEER.
PX-DO	SAME AS "PX", EXCEPT REMOVED, CLEANED AND RESTORED INTACT, AS FAR AS PRACTICAL, MATCHED MARKED, AND OTHERWISE IDENTIFIED AS REQUIRED AND DELIVERED TO OWNER OUTSIDE OF BUILDING AS DIRECTED BY ENGINEER.
PXR	SAME AS "PX", EXCEPT REMOVED, CLEANED AND RESTORED TO GOOD OPERATING CONDITION AND REINSTALLED, SAME AS NEW WORK, IN ORIGINAL POSITION. IF RECONDITIONING IS IMPRACTICAL, PROVIDE NEW DEVICE, AS APPROVED BY ENGINEER, AT NO INCREASE IN CONTRACT PRICE.
PXN ETC.	SAME AS "PXR" EXCEPT REMOVED, CLEANED AND RESTORED TO GOOD OPERATING CONDITION AND REINSTALLED SAME AS NEW WORK, IN NEW POSITION MARKED "PN". IF RECONDITIONING IS IMPRACTICAL, PROVIDE NEW DEVICE, AS APPROVED BY ENGINEER, AT NO INCREASE IN CONTRACT PRICE. CABLE ONLY, JACKS AND PLATES SHALL BE NEW.
PN ETC.	COMPLETELY REINSTALL CABLE WITH NEW JACK AND FACEPLATE, AT NEW LOCATION, SAME, AS NEW WORK.

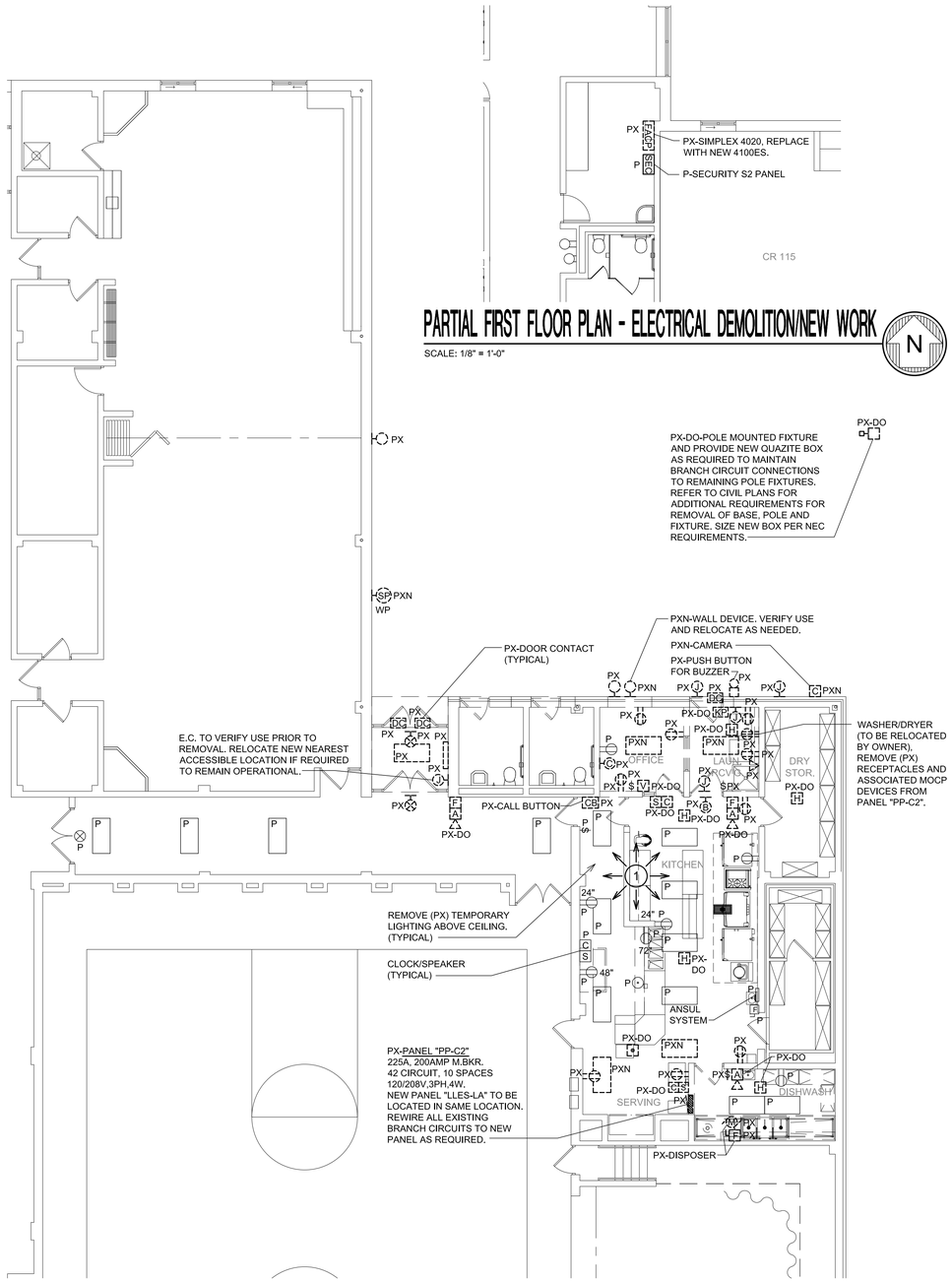
I. WORK OF EVERY DIVISION SHALL BE COORDINATED WITH ALL OTHER WORK AND PRESENT CONDITIONS, SO THAT:
   1. NETWORK SERVICES TO PRESENT BUILDINGS OR PORTIONS OF BUILDING WILL NOT BE INTERRUPTED DURING PERIODS WHEN THOSE SERVICES ARE NEEDED.

J. NEW CONDUIT SERVING NEW TELECOMMUNICATIONS OUTLETS BY EC, SEE ELECTRICAL DRAWINGS.

K. UNNEEDED CABLE, JACKS, AND FACE PLATES, SHALL BE COMPLETELY REMOVED; AS PER NOTE "PX". NEW CONNECTIONS TO PRESENT RACKS AND PATCH PANELS SHALL BE MADE, TESTED, COVERED, PAINTED, ETC., SAME AS NEW EQUIPMENT. PRESENT EQUIPMENT, AND OTHER COVERING DISTURBED BY CONTRACTOR SHALL BE REPAIRED TO EQUAL NEW CONDITION AND PAINTED SAME AS NEW COVERING.

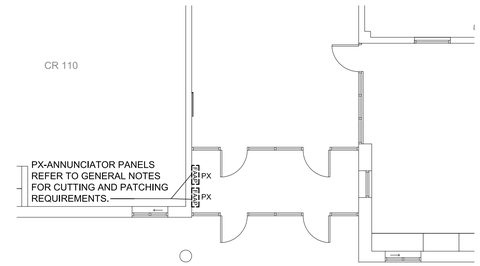
L. WORK SHALL BE COORDINATED SO THAT HEATING, PLUMBING, ELECTRICAL, AND TELEPHONE SERVICES TO THE PRESENT BUILDING WILL NOT BE INTERRUPTED, EXCEPT AS APPROVED BY THE ARCHITECT.

M. TELECOMMUNICATIONS CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE EXISTING SYSTEM WHICH WILL BE AFFECTED BY THE DEMOLITION WORK. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS AND FULLY UNDERSTAND THE NATURE AND SCOPE OF WORK REQUIRED FOR THIS PROJECT. COORDINATE ALL WORK WITH THE OWNER.



PARTIAL FIRST FLOOR PLAN - ELECTRICAL DEMOLITION/NEW WORK

SCALE: 1/8" = 1'-0"



PARTIAL FIRST FLOOR PLAN - ELECTRICAL DEMOLITION/NEW WORK

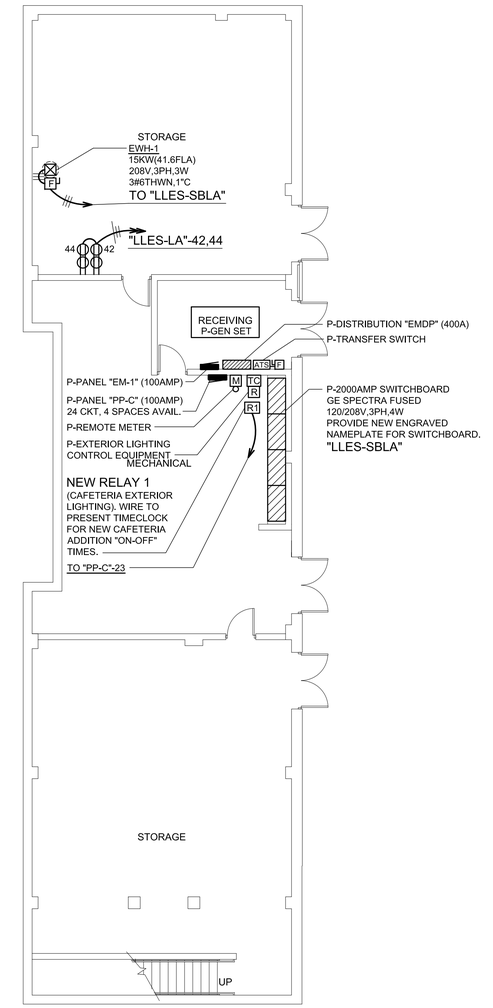
SCALE: 1/8" = 1'-0"

FIRST FLOOR PLAN - ELECTRICAL DEMOLITION

SCALE: 1/8" = 1'-0"

GENERAL DEMOLITION NOTE:

1. FOR ALL WALLS, CEILINGS, FLOORS, ETC. REQUIRED FOR CONSTRUCTION DEMOLITION WORK OR NEW CONSTRUCTION WORK, INCLUDING, BUT NOT LIMITED TO ITEMS SHOWN: REMOVE (PX) AND/OR REMOVE AND RELOCATE (PXN-PN) ALL ELECTRICAL EQUIPMENT, DEVICES, BOXES, CONDUIT, WIRING, ETC., AS REQUIRED, FOR DEMOLITION OF PRESENT CONSTRUCTION AND TO AVOID INTERFERENCE WITH NEW CONSTRUCTION. (VERIFY PRIOR TO BIDDING TO INCLUDE ALL NECESSARY MATERIALS AND LABOR).



BASEMENT FLOOR PLAN - EXISTING AND NEW WORK ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

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CAFETERIA ADDITION AND REMODELING TO
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SHEET IDENTIFICATION
ELECTRICAL DEMOLITION PLAN AND NOTES

PROJECT INFORMATION

Date	April 3, 2017		
Rev. Date			
RLJA Proj	2015-052		

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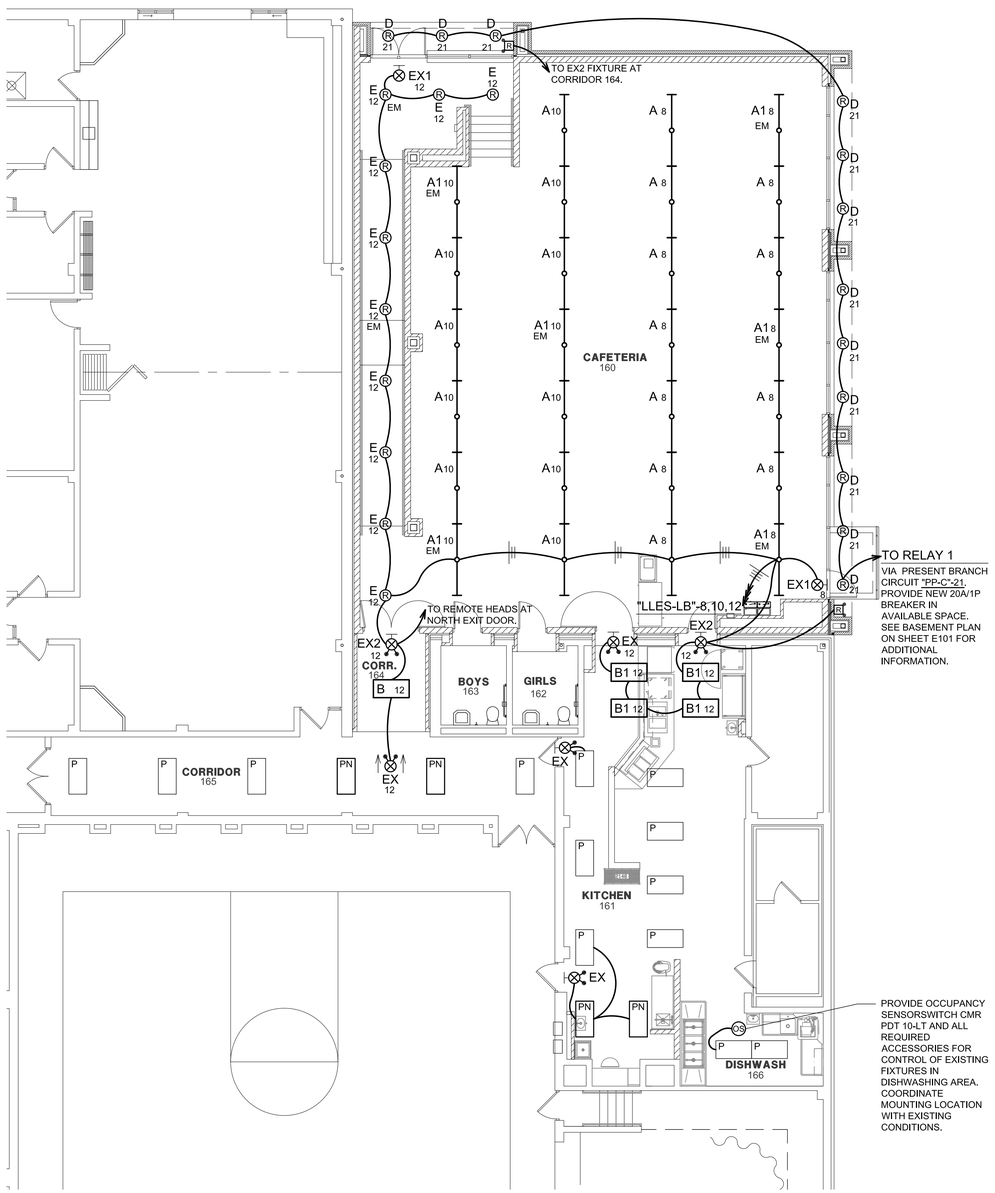
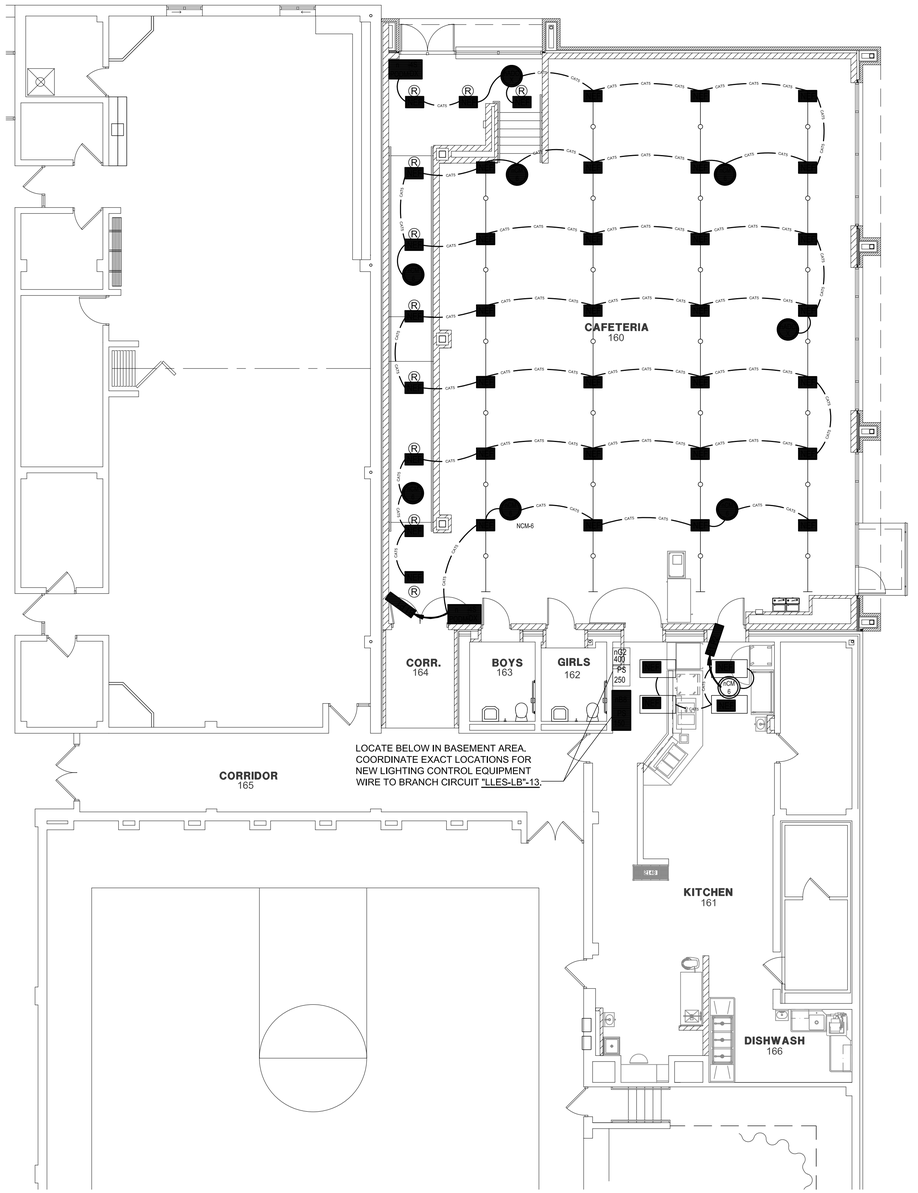


FLOOR PLAN - NEW WORK LIGHTING

SCALE: 1/8" = 1'-0"



FLOOR PLAN - NEW WORK LIGHTING CONTROLS

SCALE: 1/8" = 1'-0"

CAFETERIA ADDITION AND REMODELING TO

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SHEET IDENTIFICATION

NEW WORK LIGHTING AND CONTROL PLANS

PROJECT INFORMATION

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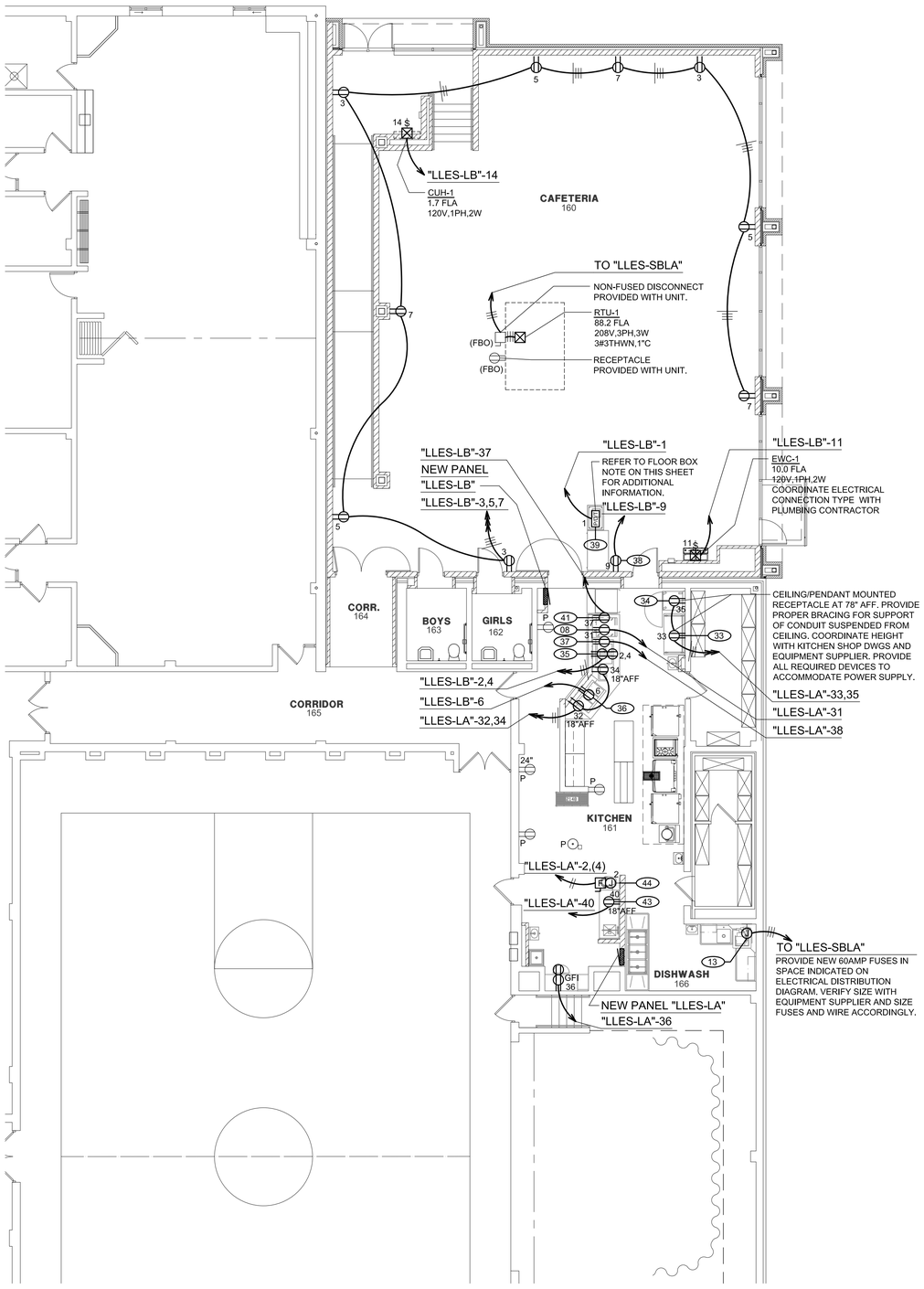

FIRST FLOOR PLAN - NEW WORK POWER

SCALE: 1/8" = 1'-0"

N

KITCHEN EQUIPMENT ELECTRICAL SCHEDULE

ELECTRIC LOAD SCHEDULE													
ITEM NO	QTY	EQUIPMENT CATEGORY	EQUIPMENT REMARKS	AMPS	KW	HP	VOLTS	PHASE	DIRECT	PLUG	NEMA	ELECTRICAL AFF (IN)	ELEC REMARKS	ITEM NO
08	1	PREP REFRIGERATOR	PROVIDED BY RPS, INSTALLED BY GC	6.0		0.2	120	1		X	5-20P	12		08
13	1	WAREWASHER, DOOR TYPE, HIGH TEMP	CORNER UNIT, PROVIDED BY RPS, INSTALLED BY GC	45.4			208	3	X			12.75		13
33	1	MOBILE WORKTABLE	PROVIDED BY RPS, INSTALLED BY GC	16.0			120	1		X	5-20P	78	PENDANT RECEPTACLE	33
34	1	HOLDING CABINET, HUMIDIFIED HEATED	PROVIDED BY RPS, INSTALLED BY GC	19.8			120	1		X	5-20P	78	PENDANT RECEPTACLE	34
35	1	FRONT COUNTER		(2)16			120	1		X	5-20P	18	DR-ON WALL BELOW COUNTER	35
36	1	DROP-IN, HOT WELLS		15.6	1.9		120	1		X	5-20P	16		36
37	1	DROP-IN, HOT/COLD UNIT		11.2			120	1		X	5-20P	18		37
38	1	MILK COOLER	NIKEC	6.3		0.33	120	1		X	5-20P	12		38
39	1	POS	NIKEC	16.0			120	1		X	5-20P	34	DATA REQ'D	39
41	1	REFRIGERATED SELF-SERVICE CASE	PROVIDED BY RPS, INSTALLED BY GC	14.0			120	1		X	5-20P	48		41
43	1	WORKTABLE W/SINK		16.0			120	1		X	5-20P	48	DR-CONVENIENCE OUTLET ON WALL	43
44	1	FLOOR MIXER	EXISTING, RELOCATED	X			X			X			VERIFY EXISTING & PROVIDE	44

KITCHEN EQUIPMENT NOTES

1 THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL MATERIAL, LABOR, PERMITS, AND FEES FOR REQUIRED TO OPERATE THE FOOD SERVICE EQUIPMENT AND AS INDICATED BY THE ELECTRICAL DRAWINGS AND THESE NOTES.
2 THE ELECTRICAL CONTRACTOR SHALL MAKE THE FINAL CONNECTIONS FROM THE ROUGH-IN POINT TO THE CONNECTION POINTS ON THE FOOD SERVICE EQUIPMENT.
3 ALL ELECTRICAL WORK SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES AND REGULATIONS, AND SHALL BE ENFORCED BY THE ELECTRICAL CONTRACTOR AT ALL TIMES.
4 ELECTRICAL OUTLETS AND CONNECTIONS SHOWN ON THE ELECTRICAL POWER PLAN DRAWING ARE FOR FIXTURES AND EQUIPMENT SUPPLIED BY THE OWNERS' FOODSERVICE EQUIPMENT CONTRACTOR.
5 THE FBO SYMBOL ON THE FOOD SERVICE EQUIPMENT SHOW LOCATIONS AND TYPES OF CONNECTIONS ONLY. THE ELECTRICAL CONTRACTOR IS TO FURNISH CONDUITS, CIRCUITS, SWITCHES, PULL BOXES, RECEPTACLES ETC. AS NECESSARY, AND SHALL INSTALL THE ELECTRICAL SYSTEM TO MEET ALL CODES THAT APPLY.
6 THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL STAINLESS STEEL COVER PLATES ON ALL EXPOSED PULL BOXES, ACCESS BOXES AND RECEPTACLES.
7 THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL LOCKOUT DEVICES ON BREAKERS FOR CLOCKS, MECHANICAL REFRIGERATION SYSTEMS AND CONTROL WIRING AS REQUIRED FOR NEW WORK.
8 THE ELECTRICAL CONTRACTOR SHALL CONFIRM ELECTRICAL REQUIREMENTS OF OWNER SUPPLIED EQUIPMENT AND ADJUST MOCP DEVICES AND WIRES SIZES AS REQUIRED FOR KITCHEN EQUIPMENT. (TYPICAL FOR KITCHEN EQUIPMENT INDICATED ON PLAN).
9 THE ELECTRICAL CONTRACTOR SHALL PROVIDE SHUNT-TRIP DEVICES FOR RECEPTACLES/MOCP DEVICES SERVING EQUIPMENT UNDER HOOD AREAS AS REQUIRED. PROVIDE AND WIRE AS REQUIRED. (TYPICAL).
10 WHERE STUBBING UP OUT OF THE FLOOR, CONDUIT SHALL EXTEND A MINIMUM OF 4" ABOVE THE FINISHED FLOOR OR CURB.

NOTE:
ALL INFORMATION NOTED ABOVE SHALL BE COORDINATED WITH THE ACTUAL EQUIPMENT PROVIDED BY THE OWNER EQUIPMENT SUPPLIER. ALL NOTES MAY NOT APPLY TO THIS PROJECT. ALL WORK REQUIRED SHALL BE VERIFIED PRIOR TO ROUGH-IN. ALL MOCP DEVICES SHALL BE COORDINATED PRIOR TO ORDERING NEW ELECTRICAL DEVICES. SIZE WIRE ACCORDINGLY. REFER TO KITCHEN EQUIPMENT PLANS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

FLOOR BOX NOTES

FLOOR BOX EQUAL TO LEGRAND "EVOLUTION" SERIES, SIX GANG FULLY ADJUSTABLE MODEL EFB6S. FLANGE AND BEZELS TO MATCH FLOOR COVERING FOR AREA AT FLOOR BOX INSTALL LOCATION. ARCHITECT TO SELECT FINISH. COORDINATE WITH THE OWNER PRIOR TO ORDERING DEVICES. ALL DEVICES SHALL BE INCLUDED FOR A COMPLETE OPERATIONAL FLOOR BOX. FLOOR BOX LOCATION INDICATED ON PLAN SHALL BE COORDINATED WITH THE FINAL KITCHEN EQUIPMENT PLAN AND THE ARCHITECT PRIOR TO ROUGH-IN.

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SHEET IDENTIFICATION
NEW WORK POWER PLAN

PROJECT INFORMATION

Date	April 3, 2017		
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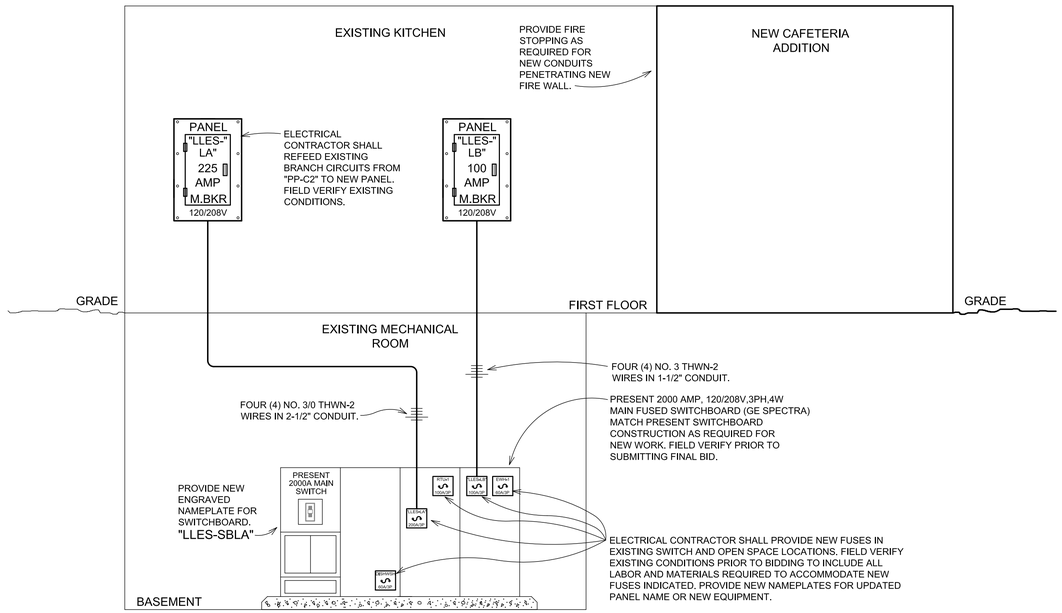

DIAGRAM SHOWING ELECTRICAL SERVICE AND DISTRIBUTION SYSTEM

NO SCALE PURELY DIAGRAMMATIC

REFER TO FLOOR PLANS, PANEL SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. COORDINATE AVAILABLE FAULT CURRENT WITH THE LOCAL UTILITY COMPANY. (VERIFY PRIOR TO SUBMITTING FINAL BID). ADJUST A.I.C. RATINGS FOR ALL OVERCURRENT PROTECTION DEVICES AS REQUIRED. (VERIFY). COORDINATE EXACT EQUIPMENT LOCATIONS WITH ALL OTHER TRADE CONTRACTORS ASSOCIATED WITH THIS PROJECT PRIOR TO ROUGH-IN OF ANY ELECTRICAL EQUIPMENT. ALL EQUIPMENT SHALL BE PROVIDED WITH 90° CENTIGRADE LUGS FOR THWN WIRING.

NEW PANEL SCHEDULES

PANEL: "LLES-LA" VOLTAGE: 120/208V, 3PH, 4WIRE MOUNTING: RECESSED
BUS: 225 AMP CU LOCATION: KITCHEN MAIN: BREAKER
A.I.C.: EXISTING FEEDER: 4#3/0 THWN-2, 2-1/2"C - VERIFY SIZE RATING: 200A/3P

CIR NO.	AMPS/ POLES	DESCRIPTION-AMPS	PHASE "A"	PHASE "B"	PHASE "C"	DESCRIPTION-AMPS	AMPS/ POLES	CIR NO.
1	20/2	HOT FOOD STATION-10.0	(25.0)			MIXER-15.0	30/2	2
3		HOT FOOD STATION-10.0		(25.0)		MIXER-15.0		4
5	50/2	TILTING SKILLET-25.0			(25.0)	SPARE	20/1	6
7		TILTING SKILLET-25.0	(25.0)			SPARE	20/1	8
9	20/1	CONVECTION OVEN-10.0		(10.0)		SPARE	20/1	10
11	20/1	CONVECTION OVEN-10.0			(18.0)	MILK COOLER-8.0	20/1	12
13	20/1	REACH-IN REFRIG-10.0	(17.5)			VENT LTG-7.5	15/1	14
15	15/1	SPARE		( )		SPARE	30/1	16
17	25/1	COOLER DOOR HTR-12.5			(17.5)	KITCHEN RECEPT-5.0	20/1	18
19	25/1	FREEZER DOOR HTR-12.5	(17.5)			KITCHEN RECEPT-5.0	20/1	20
21	25/1	SPARE		(5.0)		KITCHEN RECEPT-5.0	20/1	22
23	15/2	ROOF MAU-7.5			(7.5)	SPARE	15/1	24
25		ROOF MAU-7.5	(57.5)			OVEN STEAMER-50.0		26
27	20/1	FLOOD EXH FAN-5.0		(55.0)		" " -50.0	100/3	28
29	20/1	CASHIER RECEPT-5.0			(55.0)	" " -50.0		30
31	20/1	PREP REFRIG-6.0	(16.0)			RECEPT-10.0	20/1	32
33	20/1	MOBILE WORKTABLE-16.0		(26.0)		RECEPT-10.0	20/1	34
35	30/1	HOLDING CABINET-19.8			(22.8)	RECEPT-3.0	20/1	36
37	20/1	REFRG, CASE-14.0	(25.2)			DROP-IN HOT/CLD-11.2	20/1	38
39	20/1	SPARE		(16.0)		WORK TABLE-16.0	20/1	40
41	20/1	SPARE			(5.0)	TELECOMM RECEPT-5.0	20/1	42
43	20/1	SPARE	(5.0)			TELECOMM RECEPT-5.0	20/1	44
45	20/1	SPARE		( )		SPARE	20/1	46
47	20/1	SPARE			( )	SPARE	20/1	48
49	20/1	SPARE	( )			SPARE	20/1	50
51	20/1	SPARE		( )		SPARE	20/1	52
53	20/1	SPARE			( )	SPARE	20/1	54
55	20/1	SPARE	( )			SPARE	20/1	56
57	20/1	SPARE		( )		SPARE	20/1	58
59	20/1	SPARE			( )	SPARE	20/1	60

TOTAL PHASE "A" AMPS: (188.7) REMARKS:
TOTAL PHASE "B" AMPS: (137.0)
TOTAL PHASE "C" AMPS: (150.8) 4-#3/0 THWN MAX AMP @ 75° = 200 A
HIGH PHASE: "A" AMPS: (188.7) ØA: CL X 1.25 + NCL = (0)(1.25) + 188.7 = 188.7 A

REWIRE ALL EXISTING BRANCH CIRCUITS FROM "PP-C2" TO THIS PANEL AS REQUIRED.

PANEL: "LLES-LB" VOLTAGE: 120/208V, 3PH, 4WIRE MOUNTING: RECESSED
BUS: 100 AMP CU LOCATION: SEE PLAN MAIN: BREAKER
A.I.C.: COORDINATE FEEDER: 4#3 THWN-2, 1-1/2"C RATING: 100A/3P

CIR NO.	AMPS/ POLES	DESCRIPTION-AMPS	PHASE "A"	PHASE "B"	PHASE "C"	DESCRIPTION-AMPS	AMPS/ POLES	CIR NO.
1	20/1	POS-16.0	(32.0)			FRONT COUNTER-16.0	20/1	2
3	20/1	RECEPT-6.0		(22.0)		FRONT COUNTER-16.0	20/1	4
5	20/1	RECEPT-4.5			(20.1)	DROP-IN HOT WELL-15.6	20/1	6
7	20/1	RECEPT-4.5	(11.5)			LTG-7.0	20/1	8
9	20/1	MILK COOLER-6.3		(13.3)		LTG-7.0	20/1	10
11	20/1	EWC 1-7.0			(14.0)	LTG-7.0	20/1	12
13	20/1	nLIGHT EQUIPMENT-10.0	(11.7)			CUH 1-1.7	20/1	14
15	20/1	EL STRIKES,AIPHONE-10.0		(10.0)		SPARE	20/1	16
17	20/1	EL STRIKES,AIPHONE-10.0			(10.0)	SPARE	20/1	18
19	20/1	SPARE	( )			SPARE	20/1	20
21	20/1	SPARE		( )		SPARE	20/1	22
23	20/1	SPARE			( )	SPARE	20/1	24
25	20/1	SPARE	( )			SPARE	20/1	26
27	20/1	SPARE		( )		SPARE	20/1	28
29	20/1	SPARE			( )	SPARE	20/1	30
31	20/1	SPARE	( )			SPARE	20/1	32
33	20/1	SPARE		( )		SPARE	20/1	34
35	20/1	SPARE			( )	SPARE	20/1	36
37	20/1	SPARE	( )			SPARE	20/1	38
39	20/1	SPARE		( )		SPARE	20/1	40
41	20/1	SPARE			( )	SPARE	20/1	42

TOTAL PHASE "A" AMPS: (55.2) REMARKS:
TOTAL PHASE "B" AMPS: (45.3)
TOTAL PHASE "C" AMPS: (44.1) 4-#3 THWN MAX AMP @ 75° = 100 A
HIGH PHASE: "A" AMPS: (55.2) ØA: CL X 1.25 + NCL = (0)(1.25) + 55.2 = 55.2 A

LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	LAMP SIZE AND TYPE	MOUNTING	MANUFACTURER'S NUMBER	REMARKS
A	82 CRI L.E.D., 4000K LP840, 3400 LUMENS	SURFACE SUSPENDED FROM CEILING (VERIFY)	PEERLESS LIGHTING NO. BRM9L-LO-40/60-SSH-4/8FT*-SCT-ENNB-MSD7NL-DSCNL-LP840-F2*-48ACG-MCS-C210*-DU -- PROVIDE nlight CONTROLS AS REQUIRED.	LED DIRECT/INDIRECT SUSPENDED FIXTURE WITH ADJUSTABLE AIRCRAFT CABLE WITH STEEL HOUSING, AND WHITE SATINE LENS WITH MATTE FINISH **=COORDINATE MOUNTING & CEILING TYPE FOR AREA WHERE BEING INSTALLED. COORDINATE COLOR WITH ARCHITECT PRIOR TO ORDERING. SEE PLANS FOR FIXTURE LENGTHS REQUIRED.
A1	82 CRI L.E.D., 4000K LP840, 3400 LUMENS	SURFACE SUSPENDED FROM CEILING (VERIFY)	PEERLESS LIGHTING NO. BRM9L-LO-40/60-SSH-4/8FT*-EL-SCT-ENNB-MSD7NL-DSCNL-LP840-F2*-48ACG-MCS-C210*-DU -- PROVIDE nlight CONTROLS AS REQUIRED.	LED DIRECT/INDIRECT SUSPENDED FIXTURE WITH ADJUSTABLE AIRCRAFT CABLE WITH STEEL HOUSING, AND WHITE SATINE LENS WITH MATTE FINISH WITH EM BATTERY PACK **=COORDINATE MOUNTING & CEILING TYPE FOR AREA WHERE BEING INSTALLED. COORDINATE COLOR WITH ARCHITECT PRIOR TO ORDERING. SEE PLANS FOR FIXTURE LENGTHS REQUIRED.
B	82 CRI L.E.D., 5000K LP850, 4800 LUMENS	RECESSED IN GRID CEILING (VERIFY)	LITHONIA NO. 2GTL4-48L-A19-EZ1-LP850-MVOLT OR EQUAL	2' X 4' L.E.D. RECESSED TROFFER WITH CLEAR ACRYLIC PRISMATIC LENS, MULTI-VOLT, LED DRIVER.
B1	SAME AS TYPE "B", EXCEPT WITH NEOPRENE GASKETING, AND nLIGHT ENABLED FIXTURE, N100			
C (ALT. BID #1)	70 CRI L.E.D., 4000K 16,539 LUMENS, 700mA DRIVERS	EXISTING 25'-0" TAPERED SQUARE STEEL POLE ON EXISTING CONCRETE BASE-VERIFY CONDITIONS	LITHONIA NO. CSX1-LED-60-700-40K-T5M-MVOLT-SBT-*FIELD VERIFY EXISTING POLE CONDITIONS PRIOR TO ORDERING. NOTE NEW FIXTURE ORIENTATION.	EXISTING 25'-0" POLE WITH TWO (2) LED FIXTURES WITH T5M OPTICS, MULTI-VOLT DRIVER, AND HOUSING WITH TEXTURED DARK BRONZE FINISH. (*=VERIFY FINISH WITH THE ARCHITECT PRIOR TO ORDERING, (FIXTURE WATTAGE = 134 WATTS EA.) ELECTRICAL CONTRACTOR SHALL COORDINATE NEW BOLT ON TENON BRACKET FOR EXISTING POLES TO MOUNT NEW FIXTURES. PROVIDE ALL REQUIRED ACCESSORIES FOR MOUNTING NEW FIXTURE HEADS TO EXISTING POLES.
D	L.E.D. 19.0 WATTS, 4000K, 90 CRI (1720 LUMENS)	RECESSED IN CANOPY CEILING (VERIFY)	KENALL NO. HRDL6ICL-19L-40K9-DV-DCC-FW-CSS-TTG-FS PROVIDE BAR HANGER IF REQUIRED FOR INSTALLATION.	6" RECESSED ROUND LED DOWNLIGHT FIXTURE WITH CLEAR SEMI-SPECULAR REFLECTOR FINISH, WHITE FLAT TRIM FINISH. SEALED REGRESSED TEXTURED TEMPERED GLASS LENS, ELECTRONIC LED DRIVER, MULTI-VOLT AND IC RATED.
E	L.E.D. 24.0 WATTS, 4000K, 80 CRI (2334 LUMENS)	RECESSED IN GRID CEILING (VERIFY)	JUNO LIGHTING NO. L6-23401-G3-NL-BR* L600HW-CL-WH-HB** **PROVIDE BAR HANGER IF REQUIRED FOR INSTALL. VERIFY LENGTH/TYPE PRIOR TO ORDERING.	6" RECESSED ROUND LED DOWNLIGHT FIXTURE WITH CLEAR SPECULAR REFLECTOR FINISH, WHITE FLANGE, nlight CONTROL OPTION, ELECTRONIC LED DRIVER, MULTI-VOLT AND EMERGENCY BATTERY PACK (*PROVIDE WHERE INDICATED WITH EM ONLY). LOCATE REMOTE TEST SWITCH ADJACENT TO DUCT DETECTOR TEST SWITCH (VERIFY).
EX	L.E.D. LAMPS FURNISHED WITH FIXTURE - VERIFY	CEILING OR WALL AS REQUIRED (VERIFY)	LITHONIA NO. LHQM-LED-R-SD- 120 VOLT OR EQUAL	UNIVERSAL SELF-POWERED EMERGENCY L.E.D. "EXIT" SIGN WITH 6" HIGH RED LETTERS, WHITE HOUSING WITH SIDE-MOUNTED LAMPS.
EX1	L.E.D. LAMPS FURNISHED WITH FIXTURE - VERIFY	CEILING, WALL OR PENDANT AS REQ'D	LITHONIA NO. LRP-1-RC-EL N-ELA US12-VERIFY MOUNTING 120 VOLT OR EQUAL	UNIVERSAL SELF-POWERED EMERGENCY L.E.D. "EXIT" SIGN WITH 6" HIGH RED LETTERS, NICKEL HOUSING, CLEAR ACRYLIC PANEL COORDINATE MOUNTING AND LOCATION
EX2	L.E.D. LAMPS FURNISHED WITH FIXTURE - VERIFY	CEILING OR WALL AS REQUIRED (VERIFY)	LITHONIA NO. LHQM-LED-W-R-HO-ELA-WP-M12-120/277 VOLT. PROVIDE CORROSION PROOF WIREGUARD FOR REMOTE HEADS.	UNIVERSAL SELF-POWERED EMERGENCY L.E.D. "EXIT" SIGN WITH 6" HIGH RED LETTERS, WHITE HOUSING AND SIDE-MOUNT LAMPS AND REMOTE HEAD ELECTRICAL CONTRACTOR SHALL COORDINATE BEST MOUNTING LOCATION FOR REMOTE HEAD ON EXTERIOR OF BUILDING.

NOTES:

ALL FIXTURES SHALL INCLUDE THE REQUIRED COMPONENTS REQUIRED FOR nLIGHT CONTROL SYSTEM AS DESIGNED ON A SEPARATE SHEET. ALL RELATED DEVICES SHALL BE INCLUDED AS REQUIRED FOR A COMPLETE SYSTEM. FINAL SYSTEM DESIGN BY MANUFACTURER. E.C. TO COORDINATE WITH MANUFACTURER AS REQUIRED PRIOR TO INSTALLATION.

ALL FIXTURE SELECTIONS AND FINISHES MUST BE APPROVED BY THE OWNER PRIOR TO ORDERING FIXTURES SPECIFIED ON THIS SCHEDULE.

ALL RECESSED LUMINAIRES SHALL BE COMPLETE WITH TRIM TYPE REQUIRED FOR CEILING SYSTEM BEING INSTALLED. PRIOR TO ORDERING, CONFIRM CEILING CONSTRUCTION DETAILS AND ARCHITECTURAL FINISH FOR EACH AREA AS REQUIRED FOR PROPER INSTALLATION AND SUPPORT FOR ALL FIXTURES BEING INSTALLED, PROVIDE ADDITIONAL ACCESSORIES/KITS FOR LUMINAIRES AS REQUIRED FOR PROPER INSTALLATION AND SUSPENSION IN CEILING SYSTEM DESIGN.
ALL FIXTURES SHALL BE n-LIGHT CONTROL SYSTEM COMPATIBLE AND DIGITIAL LIGHTING CONSORTIUM (DLC) CERTIFIED AND APPROVED FOR THE ILLINOIS DEPARTMENT OF COMMERCE & ECONOMIC OPPORTUNITY ENERGY GRANT PROGRAM.
INSTALL RECESSED LUMINAIRES USING ACCESSORIES AND FIRESTOPPING MATERIALSTO MEET REGULATORY REQUIREMENTS FOR FIRE RATING, IF APPLICABLE FOR THIS PROJECT.
ELECTRICAL CONTRACTOR SHALL KEEP INSULATION A MINIMUM OF 3" FROM ALL RECESSED CAN HOUSINGS AS REQUIRED FOR INSTALLATION. (IF APPLICABLE FOR THIS PROJECT).
PROVIDE UL APPROVED LUMINAIRE DISCONNECT FOR EACH LIGHT FIXTURE PER NEC REQUIREMENTS EFFECTIVE JANUARY 1, 2008. E.C. TO COMPLY AS REQUIRED.

THE FIXTURE SCHEDULE DOES NOT NECESSARILY LIST ALL ACCESSORIES AND HARDWARE NECESSARY FOR THE COMPLETION OF INSTALLATION, NOR DOES IT DETAIL THE CEILING CONSTRUCTION TO BE ENCOUNTERED FOR THIS PROJECT. IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO PROPERLY DETERMINE AND PROVIDE THE CORRECT COMPONENTS, ACCESSORIES AND HARDWARE AS REQUIRED FOR THE INSTALLATION. ALL ADDITIONAL HARDWARE FOR MOUNTING FIXTURES SHALL BE PROVIDED AT NO EXTRA COST.

ELECTRICAL CONTRACTOR SHALL PROVIDE FINAL LIGHTING PLAN TO THE LIGHTING CONTROLS MANUFACTURER FOR FINAL DEVICE DESIGN TO INCLUDE ALL DEVICES REQUIRED FOR A COMPLETE CONTROL SYSTEM DESIGN. MUST BE COMPLETED PRIOR TO ORDERING AND ROUGH-IN OF ALL RELATED LIGHTING CONTROL DEVICES. FINAL SUBMITTED BID SHALL INCLUDE ALL REQUIRED DEVICES, SYSTEM TRAINING AND PROGRAMMING FOR LIGHTING CONTROL SYSTEM.

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SHEET IDENTIFICATION
ELECTRICAL DISTRIBUTION DIAGRAM, LIGHTING FIXT. AND PANEL SCHEDULES

PROJECT INFORMATION
Date: April 3, 2017
Rev. Date:
RLJA Proj: 2015-052

SHEET NUMBER
E104
OF
8

FIRE ALARM SYSTEM LEGEND

F	FIRE ALARM SYSTEM WIRING IN CONDUIT, CONCEALED WHERE POSSIBLE
FACP	NEW FIRE ALARM CONTROL PANEL SIMPLEX 4100ES WITH 4098-9008 RELAY IAM
FAAP	NEW FIRE ALARM ANNUNCIATOR PANEL SIMPLEX 4603-9101 LCD
A	FIRE ALARM SYSTEM MULTI-CANDELA STROBE LIGHT SIGNAL AND AUDIO WALL MOUNTED DEVICE. MOUNT AT 80" AFF. (VERIFY) SIMPLEX 4906-9127
F	FIRE ALARM SYSTEM SYSTEM MANUAL PULL STATION ALARM DEVICE MEETING ALL NFPA AND A.D.A. OPERATION AND MOUNTING HEIGHT REQUIREMENTS. (MOUNT WITHIN 5'-0" OF DOOR). SIMPLEX 4099-9006 PUSH
V	WALL MOUNTED FIRE ALARM SYSTEM MULTI-CANDELA STROBE LIGHT SIGNAL DEVICE MOUNT AT 80" AFF. (VERIFY)
D	CEILING MOUNTED PHOTOELECTRIC SMOKE DETECTOR SIMPLEX 4098-9714/4098-9792
H	HEAT DETECTOR SIMPLEX 4098-9733/4098-9792
M	WALL MOUNTED MAGNETIC DOOR HOLD OPEN DEVICE SIMPLEX RSG ELECTROMAGNETIC
D	DUCT MOUNTED SMOKE DETECTOR. ALL LOCATIONS SHALL BE COORDINATED WITH HVAC CONTRACTOR. COORDINATE REMOTE TEST SWITCH MOUNTING LOCATION. (SWITCH TO BE MOUNTED 60" AFF TO ALLOW FOR EASY ACCESSIBILITY). SIMPLEX 4098-9755, 4098-9856 (TUBE) AND REMOTE TEST STATION WITH KEYSWITCH 2098-9806
CO	DUCT MOUNTED CARBON MONOXIDE DETECTOR KIT SAE VU# SSU-SL-701-KIT-MER-50/CO. LOCATION SHALL BE COORDINATED WITH HVAC CONTRACTOR AND MOUNTED PER MANUFACTURER REQUIREMENTS. COORDINATE REMOTE TEST SWITCH MOUNTING LOCATION. LOCATE ADJACENT TO DUCT SMOKE DETECTOR TEST SWITCH. (SWITCH TO BE MOUNTED 60" AFF TO ALLOW FOR EASY ACCESSIBILITY). PROVIDE SIMPLEX ZAM MODULE 4090-9101, INCLUDE ADAPTERS, BOXES AND TRIM PLATES. PROVIDE ALL REQUIRED COMPONENTS TO MONITOR FROM BUILDING FIRE ALARM SYSTEM.
CO	CEILING MOUNTED CARBON MONOXIDE (CO) DETECTOR SIMPLEX 4098-9770 (BASE) AND 4098-9733 (HEAT SENSOR)

FIRE ALARM SYSTEM NOTES:

FIRE ALARM SYSTEM SHALL BE INSTALLED AND WIRED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WIRING DIAGRAMS. CONTRACTOR SHALL PROVIDE IN SHOP DRAWINGS THE FINAL WIRING SCHEMATIC, ZONE SCHEDULE AND BATTERY CALC'S AS REQUIRED.

E.C. TO VERIFY ALL LOCAL REQUIREMENTS WITH LOCAL AUTHORITY PRIOR TO SUBMITTING FINAL BID TO INCLUDE ALL NECESSARY MATERIALS REQUIRED FOR A COMPLETE SYSTEM. ELECTRICAL CONTRACTOR TO INCLUDE ALL NECESSARY LABOR AND MATERIALS REQUIRED FOR FIRE ALARM SYSTEM EXPANSION/FACP REPLACEMENT. ALL LABOR AND MATERIALS SHALL BE INCLUDED IN THE THE FINAL BID. COORDINATE WITH THE LOCAL AUTHORITY PRIOR TO SUBMITTING TO SUBMITTING FINAL BID.

ALL CANDELA INTENSITIES SHALL BE FIELD ADJUSTED PER NFPA 72 SECTION 7.5. (TYPICAL).

ALL NEW ALARM DEVICES SHALL MEET ALL NFPA AND A.D.A OPERATION AND MOUNTING REQUIREMENTS.

ALL NEW FIRE ALARM SYSTEM WORK SHALL BE APPROVED BY LOCAL AUTHORITY HAVING JURISDICTION. FINAL SHOP DRAWING SUBMITTAL SHALL BE PROVIDED TO LOCAL FIRE PREVENTION FOR FINAL REVIEW AND APPROVAL PRIOR TO ORDERING AND INSTALLATION OF NEW FACP AND DEVICES.

GENERAL NOTES APPLY TO ALL SHEETS:

SEE DETAILS AND SCHEDULES ON DRAWINGS AND SPECIFICATIONS FOR MEANING OF ABBREVIATIONS AND ADDITIONAL REQUIREMENTS AND INFORMATION. CHECK ARCHITECTURAL, STRUCTURAL, AND OTHER MECHANICAL AND ELECTRICAL DRAWINGS FOR SCALE, SPACE LIMITATIONS, BEAMS, DOOR SWINGS, WINDOWS, COORDINATION, ADDITIONAL INFORMATION, ETC. AND REPORT ANY DESCREPANCIES, CONFLICTS, ETC. TO ARCHITECT PRIOR TO SUBMITTING BID.

ALL EQUIPMENT FURNISHED BY OTHERS (FBO) SHALL BE PROVIDED WITH PROPER MOTOR STARTERS, DISCONNECTS, CONTROLS, ETC. BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE. THE ELECTRICAL CONTRACTOR SHALL INSTALL AND COMPLETELY WIRE ALL ASSOCIATED EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S WIRING DIAGRAMS AND AS REQUIRED FOR A COMPLETE OPERATING INSTALLATION. ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF (FBO) EQUIPMENT PRIOR TO ROUGH-IN OF CONDUIT AND WIRING TO AVOID CONFLICTS.

CONTRACTOR SHALL VERIFY FINAL LOCATIONS AND CEILING TYPES FOR ALL ELECTRICAL EQUIPMENT WITH ARCHITECTURAL REFLECTED CEILING PLAN AND ALL TRADES BEFORE ORDERING OR ROUGH-IN OF EQUIPMENT TO AVOID CONFLICTS.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING, INCLUDING CORE DRILLING, SAW CUTTING, ETC., AS REQUIRED TO ACCOMMODATE HIS WORK. CUTTING AND PATCHING AND PAYMENT OF SAID WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR REQUIRING THE DISTURBANCE BUT SAME SHALL BE DONE BY A GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE APPROPRIATE ELECTRICAL CONTRACTOR TO GIVE QUANTITIES OF PATCHING REQUIREMENTS TO A GENERAL CONTRACTOR.

CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF PRESENT CEILINGS, LIGHT FIXTURES, DIFFUSERS, DUCTWORK, PIPING, CONDUIT, ETC., AS REQUIRED FOR THE INSTALLATION OF HIS WORK. REMOVAL, REPLACEMENT AND PAYMENT FOR MECHANICAL/PLUMBING ITEMS SHALL BE THE RESPONSIBILITY OF THE APPLICABLE ELECTRICAL CONTRACTOR. REMOVAL AND REPLACEMENT OF PRESENT CEILINGS, ETC., SHALL BE THE RESPONSIBILITY OF CONTRACTOR MAKING THE DISTURBANCE BUT SAME SHALL BE DONE BY A GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE APPROPRIATE ELECTRICAL CONTRACTOR TO GIVE QUANTITIES OF REMOVAL/REPLACEMENT REQUIREMENTS TO A GENERAL CONTRACTOR.

SEE ARCHITECTURAL CODE PLANS FOR WALL FIRE RATINGS. WHERE CONDUIT, PIPES, ETC. PASS THROUGH FIRE-RATED WALLS, PARTITIONS, FLOORS AND CEILINGS, SEAL OPENINGS IN ACCORDANCE WITH ICC, NEC, SPECIFICATIONS AND LOCAL REQUIREMENTS.

CONTRACTOR TO MAKE THE DISTRICT AWARE OF ANY CODE VIOLATIONS FOUND DURING CONSTRUCTION. CONTRACTOR WILL BE DIRECTED HOW TO PROCEED AFTER ANY ISSUE HAS BEEN INVESTIGATED BY THE DISTRICT.

ELECTRICAL SYMBOLS

F1 #a	RECESSED CEILING FIXTURE (◇ =WALL WASHER)
	SURFACE OR PENDANT CEILING FIXTURE
H	BRACKET FIXTURE
	RECESSED FLUORESCENT FIXTURE
	SURFACE OR PENDANT FLUORESCENT FIXTURE
	WALL FLUORESCENT FIXTURE (VERIFY HEIGHT)
H	BRACKET EXIT LIGHT
	CEILING EXIT LIGHT → DIRECTIONAL ARROW
	LIGHT TRACK
	EXTERIOR POLE FIXTURE
	BOLLARD FIXTURE
E	BATTERY EMERGENCY FIXTURE (R=REMOTE HEAD)
	SINGLE POLE SWITCH
3	THREE WAY SWITCH
4	FOUR WAY SWITCH
P	SWITCH WITH PILOT LIGHT
K	KEY OPERATED SWITCH
OS	OCCUPANCY SENSOR SWITCH (EQUAL TO SENSORSWITCH, UNO)
	DIMMER CONTROL SWITCH
	SWITCH WITH GROUNDED DUPLEX RECEPTACLE
	REMOTE CONTROL SWITCH
	GROUNDED DUPLEX RECEPTACLE
	GROUNDED SINGLE RECEPTACLE
	SPECIAL GROUNDED RECEPTACLE, SIZE AND TYPE AS SPECIFIED
	GROUNDED FLUSH FLOOR RECEPTACLE
WM	PLUGMOLD (VERIFY TYPE AND MOUNTING)
P D T	POWER, DATA AND TELEPHONE FLUSH FLOOR BOX WITH COVER. PROVIDE EMPTY CONDUIT FOR DATA/TELEPHONE TO ABOVE SUSPENDED CEILING AS REQUIRED. SEE LOW VOLTAGE CONDUIT SIZING TABLE. (VERIFY)
	OUTLET WITH FINAL CONNECTIONS TO EQUIPMENT. EQUIPMENT FURNISHED BY OTHERS (FBO). PROVIDE NECESSARY RECEPTACLE, SAFETY SWITCH, WIRING ETC. FOR COMPLETE INSTALLATION VERIFY EXACT LOCATION AND HEIGHT BEFORE ROUGH-IN.
J	CEILING JUNCTION BOX
H	WALL JUNCTION BOX → WITH FLUSH COVER
F	SAFETY SWITCH (F=FUSED)
	SURFACE ELECTRICAL PANELBOARD
	RECESSED ELECTRICAL PANELBOARD
M	MOTOR STARTER (VFD=VARIABLE FREQUENCY DRIVE)
R	CONTROL RELAY (LETTER=FLOOR, NUMBER=NO. OF RELAY)
T	TRANSFORMER
	CONDUIT RUN CONCEALED (OR PARTIALLY CONCEALED) IN CEILINGS OR WALLS
	CONDUIT RUN CONCEALED IN OR UNDER FLOORS
X	CONDUIT RUN EXPOSED, IN STRAIGHT LINES
U	CONDUIT RUN UNDERGROUND → CHARACTER MARKS= NUMBER OF WIRES. IF NONE ARE SHOWN TWO ARE REQUIRED
E	EMERGENCY WIRING, IN CONDUIT, CONCEALED
	HOMERUN TO PANEL, IN CONDUIT, CONCEALED
	ARROWS INDICATE NUMBER OF CIRCUITS
T	TELEPHONE CONDUIT RUN ABOVE CEILINGS OR IN WALLS
T	TELEPHONE CONDUIT RUN IN OR UNDER FLOORS → EMPTY CONDUIT, CONCEALED
D	TELEPHONE/DATA OUTLET BOX → WITH COVERPLATE AND 1" CONDUIT TO ABOVE SUSPENDED CEILING - BRUSHED END
	SEE TELECOMM DETAILS FOR ADDITIONAL REQUIREMENTS.

NUMBER=CIRCUIT
LETTER=SWITCH
F1,F2,F3=FIXTURE
SEE SPECIFICATIONS AND FIXTURE SCHEDULE

UP 4'-0", UNLESS NOTED OTHERWISE

NOTES:

ELECTRICAL OUTLET BOXES INSTALLED IN FIRE RATED ASSEMBLIES SHALL COMPLY WITH LATEST IBC, SECTION 712 (NOT LESS THAN 24" O.C.)

ELECTRICAL DEVICES INSTALLED IN ACCORDANCE WITH ADA SPECIFICATIONS. VERIFY HEIGHTS AND SPECIFIC DIMENSIONS.

ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY LIGHTING CONTROLS AS TO COMPLY WITH LOCAL ENERGY CODE REQUIREMENTS. ENERGY MANGAGEMENT PRODUCTS SHALL BE EQUAL TO SENSORSWITCH. E.C. TO DETERMINE IF WALL OR CEILING OCCUPANCY DEVICE TYPE IS REQUIRED BASED ON PROJECT DESIGN AND IDEAL USE OF DEVICE. PROVIDE CONTROL DEVICE WITH SUITABLE FEATURES FOR INSTALLATION LOCATIONS OF THE CONTROL DEVICES REQUIRED FOR ENERGY CODE COMPLIANCE.

ELECTRICAL ABBREVIATIONS

AC	ABOVE COUNTER	GFI	GROUND FAULT INTERRUPTER
AFF	ABOVE FINISHED FLOOR	HP	HORSEPOWER
ASC	ABOVE SUSPENDED CEILING	INC	INCANDESCENT
C	CONDUIT	IWS	IN WALL SPACE
CF	CARPET FLANGE	JB	JUNCTION BOX
CTC	CLOSE TO CEILING	KW	KILOWATTS
CTF	CLOSE TO FLOOR	LTG	LIGHTING
CTW	CLOSE TO WALL	MAX	MAXIMUM
DSB	DIMMER SWITCH BOARD	MFG	MANUFACTURER
E	EMERGENCY	MIN	MINIMUM
EBBC	ELECTRIC BASEBOARD CONVECTOR	MOB	MOTOR OUTLET BOX
		MTD	MOUNTED
EDH	ELECTRIC DUCT HEATER	MV	MERCURY VAPOR
EMC	ELECTRIC MOTORIZED CONVECTOR	NEC	NATIONAL ELECTRICAL CODE
		NL	NIGHT LIGHT
ESUH	ELECTRIC SUSPENDED UNIT HEATER	OS	OCCUPANCY SENSING DEVICE
		PH	PHASE (Ø)
EWC	ELECTRIC WATER COOLER	PNL	PANEL
EWH	ELECTRIC WATER HEATER	SW	SWITCH
FAAP	FIRE ALARM ANNUNCIATOR PANEL	TFA	TO FLOOR ABOVE
FACP	FIRE ALARM CONTROL PANEL	TFB	TO FLOOR BELOW
FBO	FURNISHED BY OTHERS	TTC	TELEPHONE TERMINAL CABINET
FL	FLUORESCENT	UNO	UNLESS NOTED OTHERWISE
FFA	FROM FLOOR ABOVE	V	VOLTS
FFB	FROM FLOOR BELOW	W	WIRE
FLA	FULL LOAD AMPS	WP	WEATHER PROOF

LIGHTING CONTROL DEVICE LEGEND AND SYSTEM NOTES

BRIDGE PORT CONNECTION POINTS

nBB PS 150 — nBRG 8 KIT
Bridge-8 Port with 150 mA power supply

nCM OS — nCM 6
High Bay 360° Sensor-Ceiling Mount, Low Voltage, Passive Infrared (PIR)

nADC X — nCM ADCX
Automatic Dimming Control Photocell- Ceilling Mount, Low Voltage (No Wires)

nCP — nCM PDT 9
Standard Range 360° Sensor, Ceiling Mount, Low Voltage, Dual Technology (PDT)

NEF — nLIGHT ENABLED FIXTURE SUPPLIED BY OTHERS
(USED FOR DEVICE COUNTING ONLY)

nG2 400 PS 250 — nGWY2 L400 KIT
nGateway2 KIT consists of a nGWY2 CTRL L400 Unit, a nGateway2 GFX, one PS 250 (250 mA power supply), Sensorview Software MAX Devices 400

n 4S PODM 4SDX — nPODM 4S DX [COLOR]
4 Button On/Off Toggle or Quad Scene Controller With Dimming

nP D — nPP16 D
Power/Relay Pack: 16A 120/277 VAC w/ 0-10VDC Dimming

nLIGHT SYSTEM NOTES

common terminology

1. zone: a group of devices in a room or area that are daisy-chained wired together with cat-5(e) cabling and function together to control that particular space's lighting. devices can be wired in any order. power for devices and communication may be supplied locally from power/relay packs (npp-16) and/or power supplies (nps-150).
2. wallpod: a term for any nlight toggle switch, dimmer switch, or scene controller. all wallpods have model numbers that start with "npod".

design notes

1. one relay is needed per circuit to be controlled and can reside within sensors, wallpods, or relay packs. power/relay packs (npp-16) have been specified where load size can not be determined (as opposed to 800/1200w maximum rated relays co-located inside sensors or wallpods). power pack placement on drawings is for counting only; final placement is up to discretion of contractor/engineer. please recheck counts to verify the number of relays needed to switch all desired loads.
2. sensors on drawings were placed with information provided at time of design. additional sensors may be required depending on building changes, final partition height/placement, furniture placement, equipment height/placement and shelving height/placement.
3. all devices have rj-45 female ports. making cat-5(e) cables with t568b male terminations is required. it is imperative that all cat-5 cables be tested with a lan cable tester to verify proper terminations.
4. computer for hosting sensorview software provided by others.
5. sensors in electrical/mechanical locations need to be verified with authority having jurisdiction (nec 110.26.d)
   "illumination. illumination shall be provided for all working space about service equipment, switchboards, panel boards, or motor control centers installed indoors. additional light outlets shall not be required where the work space is illuminated by an adjacent light source or a permitted by 201 7d(a)(1). exception no. 1, for switched receptacles. in electrical equipment rooms the illumination shall not be controlled by automatic means only."
6. for more information regarding the nlight system or installation, go to www.sensorswitch.com/nlight/docs.

SENSOR FEATURE OPTIONS		WALL SWITCH/POD COLOR OPTIONS		
ABBREVIATION	DEFINITION	ABBREVIATION	DEFINITION	
ADC	PHOTOCELL WITH DIMMING	IV	IVORY	E.C. to provide Decora stainless steel coverplate. Coordinate prior to ordering.
D	DIMMING	GR	GREY	
R	RELAY	WH	WHITE	
DZ	DUAL ZONE	AL	ALMOND	
LV	LOW VOLTAGE	SENSOR ACCESSORIES		
LT	LOW TEMP	NAME	DEFINITION	
NL	NIGHT LIGHT	WV BR	WIDE VIEW CEILING MOUNTING BRACKET	
P	PHOTOCELL	FB1	DEEP FIXTURE BRACKET	
PDT	PASSIVE DUAL TECHNOLOGY	FB2	DEEP FIXTURE BRACKET WITH HARDWARE	
V	VANDAL RESISTANT			
2P	2 POLE			
208	208 OR 240 VOLT			

SENSOR NOTES

1. SENSORS IN ELECTRICAL/MECHANICAL LOCATIONS NEED TO BE VERIFIED WITH AUTHORITY HAVING JURISDICTION. REFER TO NEC 110.26.D)
"Illumination. Illumination shall be provided for all working spaces about service equipment, switchboards, panelboards, or motor control centers installed indoors. Additional lighting outlets shall not be required where the work space is illuminated by an adjacent light source or as permitted by 210.70(A)(1), Exception No. 1, for switched receptacles. In electrical equipment rooms, the illumination shall not be controlled by automatic means only."

2. ONE POWER PACK IS NEEDED PER CIRCUIT /ZONE TO BE CONTROLLED BY A MAXIMUM OF 14 LOW VOLTAGE SENSORS. POWER PACK PLACEMENT ON DRAWINGS IS FOR COUNTING ONLY. FINAL PLACEMENT OF POWER PACK IS UP TO CONTRACTOR/ENGINEER. PLEASE RECHECK COUNTS TO VERIFY THE NUMBER OF POWER PACKS NEEDED TO MAKE A COMPLETE SYSTEM. THE MAXIMUM NUMBER OF POWER PACKS THAT CAN BE CONTROLLED BY A GROUP OF SENSORS IS 5. IF YOU HAVE MORE THEN 5 CIRCUITS CONTROLLING A SPACE YOU WILL EITHER HAVE TO BREAK UP THE SPACE INTO ZONES OR USE ONE POWER PACK PER LIGHTING CONTACTOR TO PULL IN THE CIRCUITS.

3. SENSOR PLACEMENT AND TYPES WERE PLACED WITH CURRENT PROJECT INFORMATION. ADDITIONAL SENSORS AND TYPES OF SENSORS MAY BE REQUIRED TO PROVIDE COMPLETE COVERAGE DEPENDING ON DRAWING CHANGES, EMS/BMS, FINAL PARTITION HEIGHT/PLACEMENT, FURNITURE PLACEMENT, EQUIPMENT HEIGHT/PLACEMENT AND SHELVING HEIGHT/PLACEMENT.

4. CEILING MOUNTED EXTENDED RANGE 360° SENSORS: FOR MAXIMUM DISTANCE ROTATE TO SENSOR CLOCKWISE SO THAT THE SCREW AXIS IS POSITIONED 7.5° OFF THE ENTRANCE AXIS. WHEN WALKING ACROSS A SENSOR'S BEAM, DETECTION WILL OCCUR AT APPROXIMATELY 28', WHEN WALKING DIRECTLY INTO A SENSOR'S BEAM, DETECTION WILL OCCUR AT APPROXIMATELY 24'. (REFER TO CUT SHEET FOR PICTORIAL OF ALIGNMENT)

5. SENSOR MASKING KITS MAY BE REQUIRED TO LIMIT COVERAGE DEPENDING ON YOUR REQUIREMENTS.

PRESENT EQUIPMENT AND DEMOLITION NOTES FOR ELECTRICAL

A. FOLLOWING REMOVED PRESENT EQUIPMENT AND MATERIALS WHICH ARE IN GOOD OPERATING CONDITION (OR ARE PLACED IN GOOD CONDITION), SUITABLE, MEET REQUIREMENTS OF THESE SPECIFICATIONS, AND ARE APPROVED IN WRITING BY ENGINEER, OR CALLED FOR MAY BE REUSED (PXN-PN).
   1. LIGHTING FIXTURES

B. REMOVED PIPE AND WIRE MUST NOT BE REUSED.

C. ANY OF ABOVE EQUIPMENT WHICH IS NOT REUSED AND FOLLOWING REMOVED PRESENT EQUIPMENT SHALL BECOME PROPERTY OF CONTRACTOR, AND SHALL BE REMOVED FROM PREMISES BY HIM (PX).
   1. EQUIPMENT SO DESIGNATED ON DRAWINGS.

D. FOLLOWING PRESENT EQUIPMENT SHALL BE CAREFULLY REMOVED, INTACT, MATCH MARKED, INSOFAR AS IS PRACTICAL, SHALL REMAIN PROPERTY OF OWNER, AND SHALL BE DELIVERED TO OWNER OUTSIDE OF BUILDING WHERE DIRECTED BY THE ENGINEER (PX-DO).
   1. EQUIPMENT SO DESIGNATED ON DRAWINGS.

E. CONTRACTOR SHALL:
   1. PROVIDE NEW FLOORS UNDER REMOVED PRESENT EQUIPMENT AND WHERE CALLED FOR
   2. REPAIR FLOORS UNDER AND WALLS ADJACENT TO REMOVED EQUIPMENT, TO MATCH ADJACENT CONSTRUCTION.
   3. FILL IN PRESENT CHASES WHICH ARE NO LONGER REQUIRED AND NEATLY PATCH TO MATCH ADJACENT CONSTRUCTION.
   4. CUT OPENINGS REQUIRED FOR:
      A. HIS WORK;
      B. ADMISSION OF NEW EQUIPMENT;
      C. REMOVAL OF PRESENT EQUIPMENT;
      D. NEW CONNECTION TO PRESENT CONSTRUCTION.
   5. PATCH AND REPAIR UNUSED PRESENT HOLES AND OPENINGS, AND THOSE LEFT BY THE REMOVAL OF PRESENT EQUIPMENT AND ADMISSION OF NEW EQUIPMENT.
   6. PATCH AND REPAIR PRESENT EQUIPMENT, AND BUILDING CONSTRUCTION WHICH HAS NOT BEEN CUT, REMOVED, DISTURBED OR MARRED, AS REQUIRED, TO RESTORE IT TO ORIGINAL CONDITION BEFORE BEING DISTURBED.

F. UNUSED OPENINGS IN ENCLOSURES, IN CONDUITS, BOXES, CABINETS, AND PANELS SHALL BE FILLED.

G. PRESENT PAINTED CONSTRUCTION WHICH IS MARRED SHALL BE REPAIRED SAME AS NEW CONSTRUCTION.

H. CERTAIN ABBREVIATIONS OR SYMBOLS, WHEN APPLIED TO PRESENT (TO EXISTING) LINE, DEVICE OR EQUIPMENT, SHALL HAVE THE FOLLOWING MEANINGS.

NC — NEW CONNECTIONS TO PRESENT PIPING, DEVICE WIRING, EQUIPMENT, ETC. INSTALL, TEST, COVER, PAINT, ETC., SAME AS NEW WORK.

P — TO REMAIN UNCHANGED, IF CHANGE CANNOT BE AVOIDED, CHANGE "P" TO "PXR", AT NO INCREASE IN CONTRACT PRICE. VERIFY LOCATION.

PX — TO BE COMPLETELY REMOVED, INCLUDING UNNEEDED CONNECTIONS, PIPING, DUCTS, WIRING, BASES, ETC., OF EVERY KIND, UNUSED OPENINGS PLUGGED OR CAPPED, TESTED, COVERED, PAINTED SAME AS NEW WORK, OTHER DISTURBED WORK OF EVERY KIND RESTORED, PATCHED, TESTED, COVERED, PAINTED, ETC., TO EQUAL ORIGINAL CONDITION. REMOVED MATERIAL MUST NOT BE REUSED UNLESS OTHERWISE SPECIFIED OR DIRECTED BY ENGINEER.

PX-DO — SAME AS "PX", EXCEPT REMOVED, CLEANED AND RESTORED INTACT, AS FAR AS PRACTICAL, MATCHED MARKED, AND OTHERWISE IDENTIFIED AS REQUIRED AND DELIVERED TO OWNER OUTSIDE OF BUILDING AS DIRECTED BY ENGINEER.

PXR — SAME AS "PX", EXCEPT REMOVED, CLEANED AND RESTORED TO GOOD OPERATING CONDITION AND REINSTALLED, SAME AS NEW WORK, IN ORIGINAL POSITION, OR CLOSE TO ORIGINAL LOCATION. IF RECONDITIONING IS IMPRACTICAL, PROVIDE NEW DEVICE, AS APPROVED BY ENGINEER, AT NO INCREASE IN CONTRACT PRICE. E.C TO EXTEND CONDUIT AND WIRING AS REQUIRED.

PXN ETC. — SAME AS "PXR" EXCEPT REMOVED, CLEANED AND RESTORED TO GOOD OPERATING CONDITION AND REINSTALLED SAME AS NEW WORK, IN NEW POSITION MARKED "PN". IF RECONDITIONING IS IMPRACTICAL, PROVIDE NEW DEVICE, AS APPROVED BY ENGINEER, AT NO INCREASE IN CONTRACT PRICE.
UNUSED OPENINGS PLUGGED OR CAPPED, TESTED, COVERED, PAINTED SAME AS NEW AS NEW WORK. OTHER DISTURBED WORK OF EVERY KIND RESTORED, PATCHED, TESTED, COVERED, PAINTED, ETC., TO EQUAL ORIGINAL CONDITION.

PN ETC. — COMPLETELY REINSTALL DEVICE, LINE OR EQUIPMENT REMOVED, AT NEW LOCATION, SAME, AS NEW WORK.

I. WORK OF EVERY DIVISION SHALL BE COORDINATED WITH ALL OTHER WORK AND PRESENT CONDITIONS, SO THAT;
   1. ELECTRICAL SERVICES TO PRESENT BUILDINGS OR PORTIONS OF BUILDING WILL NOT BE INTERRUPTED DURING PERIODS WHEN THOSE SERVICES ARE NEEDED.
   2. SPECIAL SYSTEMS SUCH AS FIRE ALARM, SOUND, ETC., OF EVERY KIND TO PRESENT BUILDINGS WILL NOT BE INTERRUPTED DURING WORKING AND/OR OCCUPIED HOURS, EXCEPT AS APPROVED BY OWNER AND ARCHITECT.

J. NEW CONDUIT SERVING NEW AND/OR PRESENT ELECTRICAL DEVICES IN FINISHED PRESENT ROOMS OR SPACES SHALL BE CONCEALED IN FINISHED ROOMS, WHERE POSSIBLE OR SHALL BE RUN IN ADJOINING UNFINISHED ROOMS, SHAFTS, CHAMBERS, CLOAK ROOMS, ETC., WHERE EXPOSED CONDUIT IS PERMITTED IN FINISHED PRESENT ROOMS BY ARCHITECT IN WRITING, IT SHALL BE WIREMOLD, WITH MATCHING BOXES, RUN INCONSPICUOUSLY AS POSSIBLE, IN STRAIGHT LINES, PARALLEL TO WALLS AND CEILINGS, WITH NEAT BENDS, UNNEEDED BOXES, SWITCHES AND WIRING SHALL BE COMPLETELY REMOVED AND OPENINGS PATCHED. IN PRESENT ROOMS OR LOCATIONS WHERE NEW LIGHTING EQUIPMENT IS SHOWN, PRESENT FIXTURES, BOXES, WIRING, SWITCHES, ETC. SHALL BE REMOVED AS PER NOTE "PX" UNLESS ANOTHER SYMBOL IS SHOWN ON DRAWINGS. WHERE SPECIFICALLY APPROVED BY ARCHITECT IN WRITING, BOXES MAY BE PERMITTED TO REMAIN AND BE PROVIDED WITH NEAT FLUSH COVERS, EXTENDING OVER ENTIRE WALL OPENING.

K. UNNEEDED ELECTRICAL FIXTURES, SWITCHES, STARTERS, DEVICES, ETC., SHALL BE COMPLETELY REMOVED; AND CONSTRUCTION PATCHED AS PER NOTE "PX" NEW CONNECTIONS TO PRESENT EQUIPMENT, SHALL BE MADE, TESTED, COVERED, PAINTED, ETC., SAME AS NEW EQUIPMENT. PRESENT EQUIPMENT, AND OTHER COVERING DISTURBED BY CONTRACTOR SHALL BE REPAIRED TO EQUAL NEW CONDITION AND PAINTED SAME AS NEW COVERING.

L. WHERE DEVICES ARE OMITTED FROM PRESENT BRANCH CIRCUITS, THE REMAINING DEVICES, ON THE SAME CIRCUIT AND/OR CONDUIT RUN, SHALL BE REWIRED, IF NEEDED AND AS REQUIRED, TO REMAIN ON THEIR RESPECTIVE CIRCUITS AND IN OPERATING CONDITION.

M. LIGHTING FIXTURES WHICH ARE REUSED SHALL HAVE LENS AND REFLECTORS CLEANED. ALL FIXTURES SHALL BE PROVIDED WITH NEW LAMPS.

N. WORK SHALL BE COORDINATED SO THAT HEATING, PLUMBING, ELECTRICAL, AND TELEPHONE SERVICES TO THE PRESENT BUILDING WILL NOT BE INTERRUPTED, EXCEPT AS APPROVED BY THE ARCHITECT.

O. ELECTRICAL CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE EXISTING ELECTRICAL SYSTEM WHICH WILL BE AFFECTED BY THE DEMOLITION WORK. THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS AND FULLY UNDERSTAND THE NATURE AND SCOPE OF WORK REQUIRED FOR THIS PROJECT. COORDINATE ALL WORK WITH THE OWNER.

P. ELECTRICAL CONTRACTOR SHALL PROVIDE UPDATED TYPED PANELBOARD BRANCH CIRCUIT DIRECTORIES AS REQUIRED FOR REVISED CIRCUITS INDICATED AND BRANCH CIRCUITS REMOVED FROM ELECTRICAL DEMOLITION WORK.

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CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
ELECTRICAL NOTES AND SYMBOLS

PROJECT INFORMATION
Date: April 3, 2017
Rev. Date:
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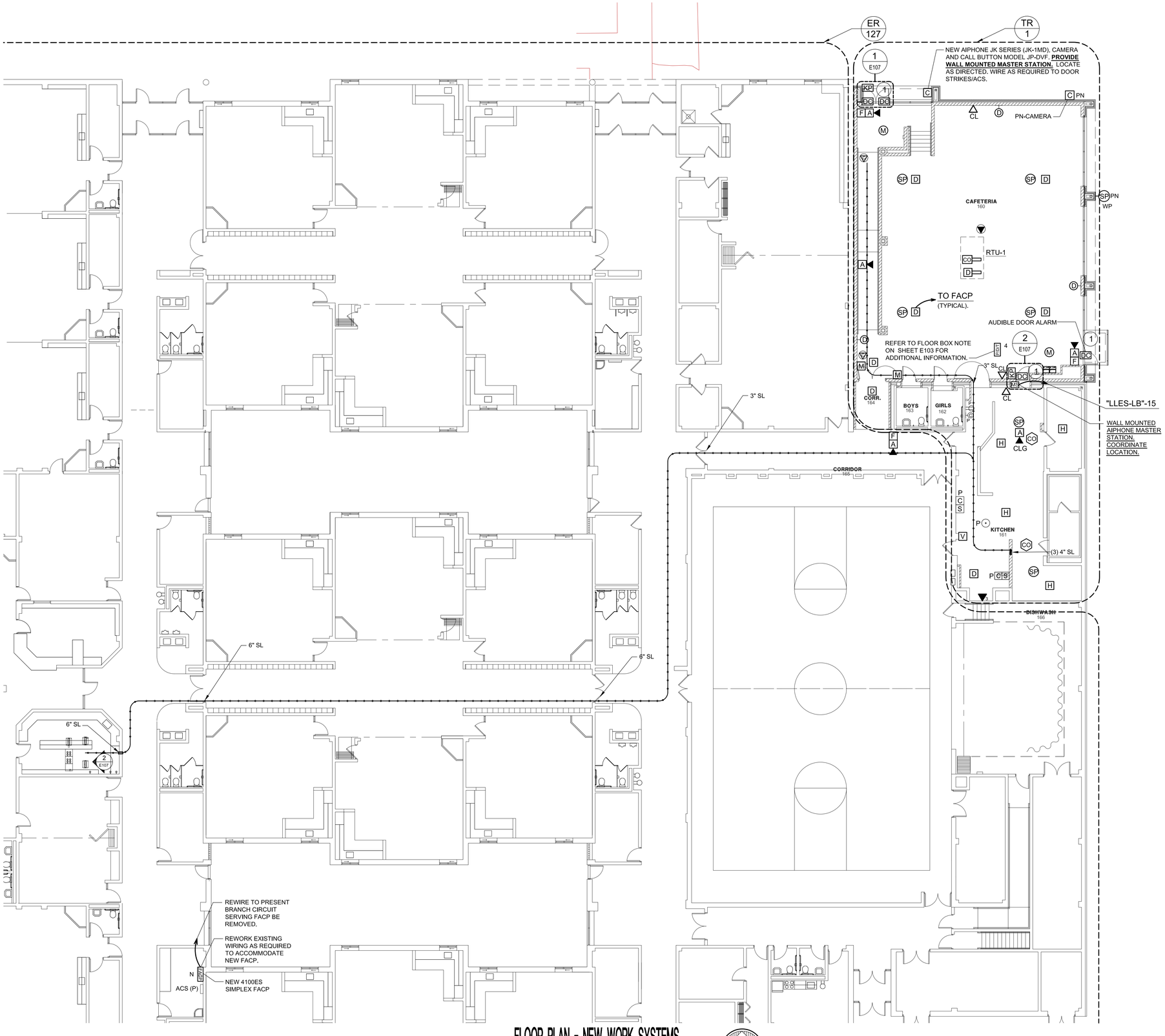
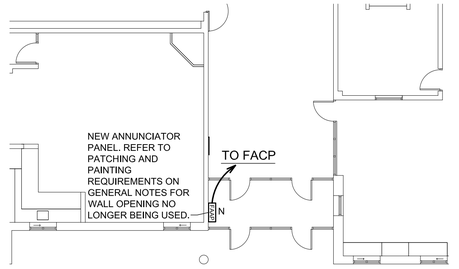
DRAWING NOTE

1. ELECTRICAL CONTRACTOR SHALL WIRE AND COMPLETELY INSTALL ALL ELECTRIC DOOR STRIKES,AIPHONE SYSTEM DEVICES ETC. AS REQUIRED FOR OPERATION. ELECTRICAL CONTRACTOR SHALL PROVIDE AND WIRE RELATED RELAYS TO ACCESS CONTROL PANEL. E.C. TO WIRE PER FINAL WIRING DIAGRAMS FOR ALL RELATED DOOR ACCESS SYSTEMS, ELECTRIC STRIKES, CARD READERS, INTERCOM STATIONS (AIPHONE) ETC. COORDINATE WITH THE ARCHITECT DOOR HARDWARE AND GENERAL CONTRACTOR PRIOR TO ROUGH-IN. (TYPICAL FOR ALL LOCATIONS). UTILIZE DESIGNATED BRANCH CIRCUITS "LLES-LB"-15,17. PROVIDE ALL WIRING DEVICES FOR SYSTEM OPERATIONS.



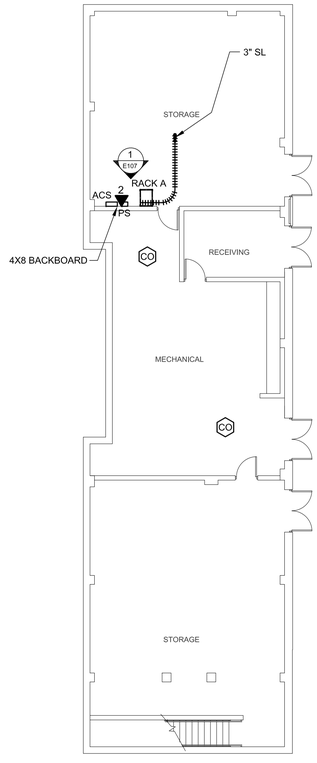
FLOOR PLAN - NEW WORK SYSTEMS

SCALE: 3/32" = 1'-0"



PARTIAL PLAN - NEW WORK SYSTEMS

SCALE: 3/32" = 1'-0"



BASEMENT PLAN - NEW WORK SYSTEMS

SCALE: 3/32" = 1'-0"

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NEW WORK SYSTEMS PLANS

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TELECOMMUNICATIONS SYMBOLS

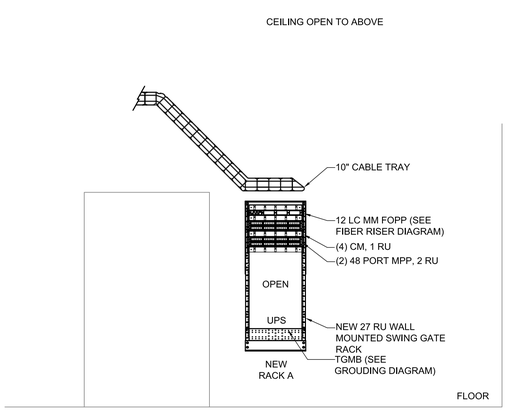
WAP CAM SP	WAP/CAMERA/SPEAKER (EQUIPMENT - FB0), PROVIDE CAT6 OUTLET CEILING - SEE DETAILS
KP	COMBINATION KEYPAD/CARD READER
	TELECOMMUNICATIONS OUTLET, CAT6 - SEE DETAILS
	SURFACE TELECOMMUNICATIONS PANELBOARD
C	CONDUIT RUN CONCEALED (OR PARTIALLY CONCEALED) IN CEILINGS OR WALLS (ARROWS INDICATE NUMBER OF CABLES)
	CONDUIT RUN CONCEALED IN OR UNDER FLOORS (ARROWS INDICATE NUMBER OF CABLES)
SC	SURFACE BOX TO CEILING CONDUIT RUN EXPOSED
ST	SURFACE BOX TO CABLE TRAY CONDUIT RUN EXPOSED
CC	WALL OUTLET CONDUIT RUN TO CEILING, CONCEALED
CF	WALL OUTLET CONDUIT RUN TO FLOOR, CONCEALED
CT	WALL OUTLET CONDUIT RUN TO CABLE TRAY, CONCEALED
CT-#	CABLE TRAY (WIDTH IN INCHES AS INDICATED), 4" DEEP
LR-#	LADDER RACK (WIDTH IN INCHES AS INDICATED)
FO	FIBER OPTIC BACKBONE CABLE
CO	COPPER BACKBONE CABLE
HCOP	HORIZONTAL COPPER DISTRIBUTION CABLE
	INTERIOR PATHWAY - J HO0K OR RING RUN B-LINE BCH21 OR EQUAL
UE/T	UNDERGROUND TELECOMMUNICATIONS IN DUCT BANK
O/E	OVERHEAD ELECTRICAL/TELECOMMUNICATIONS CABLING
T	EXTERIOR TELECOMMUNICATIONS CABLING IN CONDUIT
WAP	WIRELESS ACCESS POINT - 802.11N
TMGB	TELECOMMUNICATIONS MAIN GROUND BAR
TGB	TELECOMMUNICATIONS GROUND BAR
	VERTICAL SLEEVE (SIZE AS INDICATED)
CM	CABLE MANAGER
	INSULATION DISPLACEMENT CONNECTOR (110 VOICE BLOCK)
	CEILING MOUNTED IP VIDEO SURVEILLANCE CAMERA
	EXTERIOR IP VIDEO SURVEILLANCE CAMERA W/ HEATER AND BLOWER
CR	CARD READER, ACCESS CONTROL
ACP	ACCESS CONTROL PANEL
DC	DOOR CONTACT
PS	POWER SUPPLY
M	CEILING MOUNTED MOTION SENSOR (FBO) PROVIDE CABLE EQUAL TO BELDEN 6243FE FROM LOCATION TO SECURITY PANEL. PROVIDE 10' CABLE COILED AND SUPPORTED ASC AT SENSOR LOCATION AND 20' CABLE COILED AND SUPPORTED AT SECURITY PANEL LOCATION.

NOTES: TELECOMMUNICATIONS OUTLET BOXES INSTALLED IN FIRE RATED ASSEMBLIES SHALL COMPLY WITH BOCA 709,6.3 (NOT LESS THAN 24" O.C.)

ELECTRICAL DEVICES INSTALLED IN ACCORDANCE WITH ADA SPECIFICATIONS. VERIFY HEIGHTS AND SPECIFY DIMENSIONS.

TELECOMMUNICATIONS ABBREVIATIONS

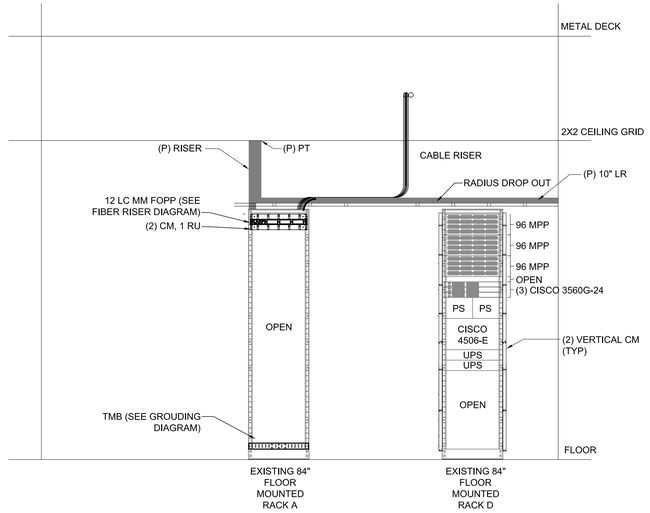
802.1P	IEEE STANDARD FOR LINK LAYER PRIORITIZATION
AC	ABOVE COUNTER
ACL	ACCESS CONTROL LIST
AFF	ABOVE FINISHED FLOOR
ACS	ACCESS CONTROL SYSTEM
AP	ACCESS POINT (THIN)
ASC	ABOVE SUSPENDED CEILING
BEP	BUILDING ENTRANCE PROTECTOR
C	CONDUIT
CA	CABLE
CM	CABLE MANAGEMENT
CPB	CONDUIT TO PULL BOX
CT	CABLE TRAY
CO	COPPER BACKBONE CABLE
CWO	COORDINATE WITH OWNER
DD	DISTRIBUTION DUCT
ER	EQUIPMENT ROOM (MDF)
FBO	FURNISHED BY OWNER
FD	FEEDER DUCT
FFA	FROM FLOOR ABOVE
FFB	FROM FLOOR BELOW
FO	FIBER OPTIC
FOPP	FIBER OPTIC PATCH PANEL
FW	FIREWALL
IDF	INTERMEDIATE DISTRIBUTION FACILITY-TELECOMMUNICATIONS ROOM
LC	"LC TYPE" FIBER OPTIC CONNECTOR
MDF	MAIN DISTRIBUTION FACILITY-EQUIPMENT ROOM
MPP	MODULAR PATCH PANEL, CATEGORY 6
MUTOA	MULTI-USER TELECOMMUNICATIONS OULET ASSEMBLY
MM	MULTIMODE FIBER
PB	PULL BOX
POE	POWER OVER ETHERNET
PS	POWER SUPPLY
PT	POKE THROUGH
RU	RACK UNIT
SM	SINGLEMODE FIBER
SC	"SC TYPE" FIBER OPTIC CONNECTOR
SF	SURFACE TO FLOOR
SL	SLEEVE
SP	SERVICE PROVIDER
SR	SURFACE RACEWAY (SIZED AT MAX 50% FILL)
ST	"ST TYPE" FIBER OPTIC CONNECTOR
TC	TELECOMMUNICATIONS CONTRACTOR
TFA	TO FLOOR ABOVE
TFB	TO FLOOR BELOW
TR	TELECOMMUNICATIONS ROOM (IDF)
UPS	UNIVERSAL POWER SUPPLY
VLAN	VIRTUAL LOCAL AREA NETWORK
W	WALL JACK
WLAN	WIRELESS LOCAL AREA NETWORK



NEW RACK ELEVATION - TR1

SCALE: 1/2" = 1'-0"

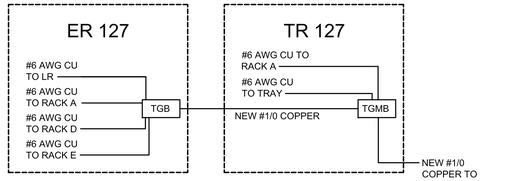
1 E107



RACK ELEVATION - ER 127

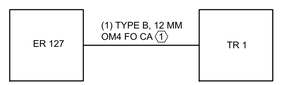
SCALE: 1/2" = 1'-0"

2 E107



GROUNDING DIAGRAM

NO SCALE



FIBER RISER DIAGRAM

NO SCALE

1 IN INNER DUCT ROUTED THROUGH PATHWAYS

CABLE SCHEDULE

CABLE SCHEDULE		
CABLE TYPE	ACCEPTABLE MANUFACTURERS	DESCRIPTION
A	BER-TEK, GENERAL, COMMSCOPE -SYSTIMAX, PANDUIT	TIA/EIA CATEGORY 6 COMPLIANT UTP, CMP, 23 AWG/4 PAIR SOLID COPPER, JACKET COLOR SHALL MATCH SCHEME LISTED BELOW.
B	CORNING, COMMSCOPE-SYSTIMAX	12 STRAND 550 LASER OPTIMIZED 50/125µm MULTIMODE OM3 FIBER OPTIC CABLE, OFNP, MIC TIGHT BUFFERED, PLENUM RATED MEETING NEC ART 770

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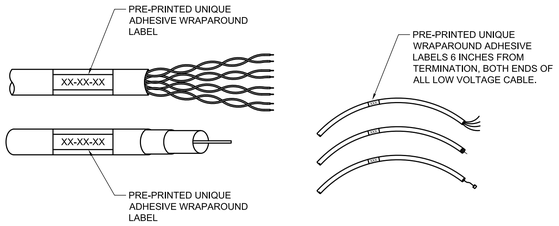
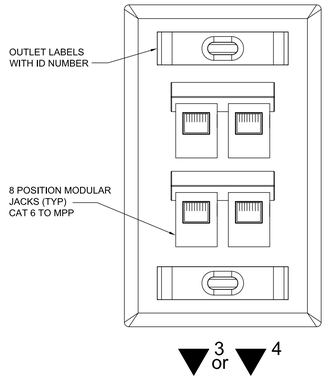


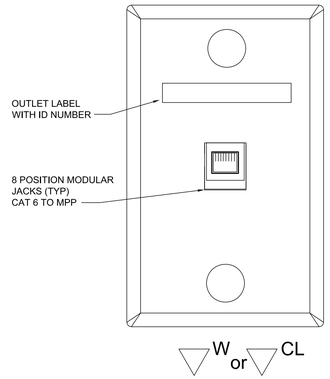
TYPICAL HORIZONTAL CABLE LABELS

NO SCALE



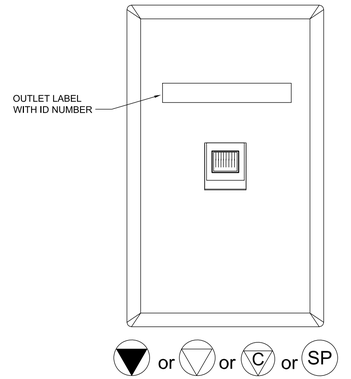
3 OR 4 PORT DATA OUTLET

NO SCALE - 18" AFF OR ABOVE COUNTER, UNO
PANDUIT MINICOM CFPSL4IW FACEPLATE, WITH COLOR CODED TX6 PLUS UTP JACKS PER SPECIFICATIONS.



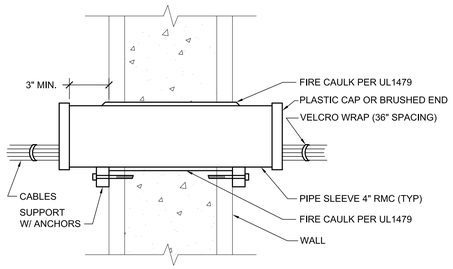
WALL TELEPHONE, OR CLOCK OUTLET

NO SCALE - WALL TELEPHONE - 42" AFF, 94" AFF FOR CLOCK/SPEAKER,
PANDUIT KWPY STAINLESS STEEL FACEPLATE, WITH
MINICOM CAT6 (CJ688TGIW) OFF WHITE JACK.



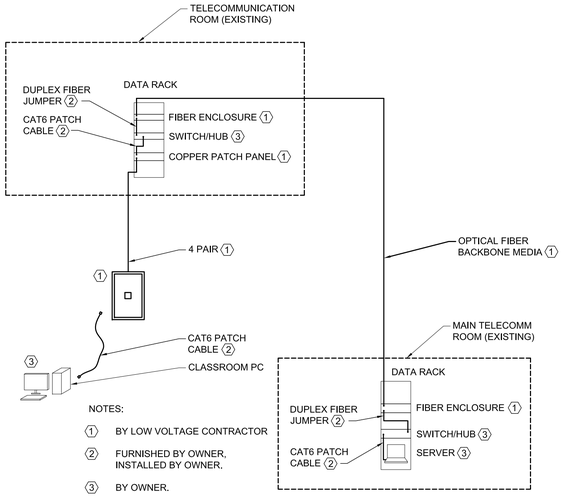
WAP, DOOR, night, CAMERA, AND SPEAKER OUTLET

NO SCALE - LOCATED ABOVE CEILING WITH 15FT SLACK LOOP
PANDUIT CFP1IW SINGLE PORT FACEPLATE, WITH MINICOM CAT6
(CJ688TGIW) OFF-WHITE JACK (WLAN)



PIPE SLEEVE THRU WALL

NO SCALE

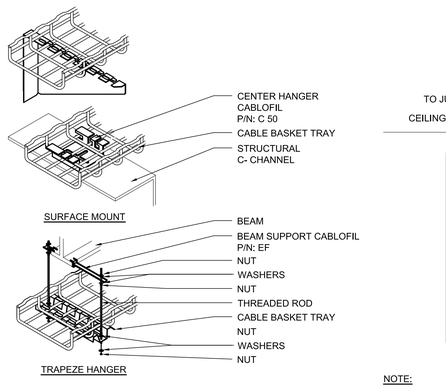


NOTES:

1. (1) BY LOW VOLTAGE CONTRACTOR
2. (2) FURNISHED BY OWNER, INSTALLED BY OWNER.
3. (3) BY OWNER.

DATA TERMINATION (TYPICAL)

NO SCALE

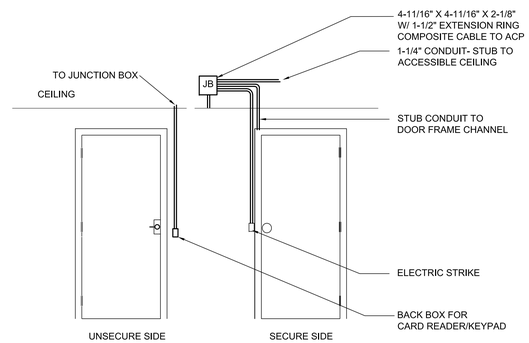


NOTES:

1. ALL METALLIC CABLE TRAYS MUST BE GROUNDED AND ALL SECTIONS BONDED IN ACCORDANCE WITH APPLICABLE CODES, STANDARDS, AND REGULATIONS.
2. ALL CABLE TRAYS AND GROUNDING CONDUCTORS SHOULD BE CLEARLY MARKED IN ACCORDANCE WITH APPLICABLE CODES, STANDARDS, AND REGULATIONS.
3. THERE SHALL BE A MINIMUM OF 6" CLEARANCE ABOVE THE CABLE TRAY, AND A MINIMUM OF 3" CLEARANCE BELOW THE CABLE TRAY
4. REFER TO THE SYSTEMS PLANS FOR EXACT CABLE TRAY SIZING.
5. SOME PART NUMBERS MAY VARY BASED ON THE SPECIFIC WIDTH OF THE CABLE TRAY INSTALLED.
6. COORDINATE MOUNTING HARDWARE WITH SPECIFIC CABLE TRAY INSTALLED.

BASKET CABLE TRAY MOUNTING DETAIL

NO SCALE

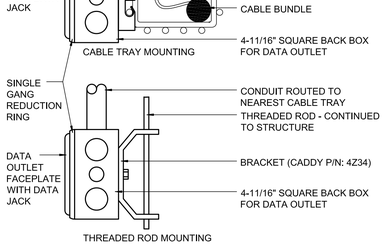


NOTE:

1. ALL CONDUITS SHALL BE 3/4" UNLESS NOTED OTHERWISE.
2. REFER TO PLANS FOR EXACT DOOR SWING.
3. TYPICAL REQUIREMENTS - REFER TO DOOR HARDWARE SCHEDULE FOR ADDITIONAL DETAIL.

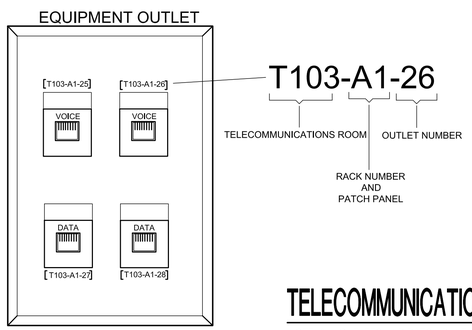
CARD READER ROUGH-IN DETAIL (2)

NO SCALE

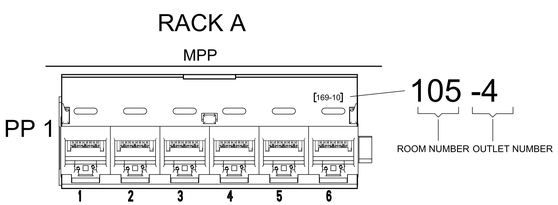


ABOVE CEILING OUTLET MOUNTING DETAIL

NO SCALE



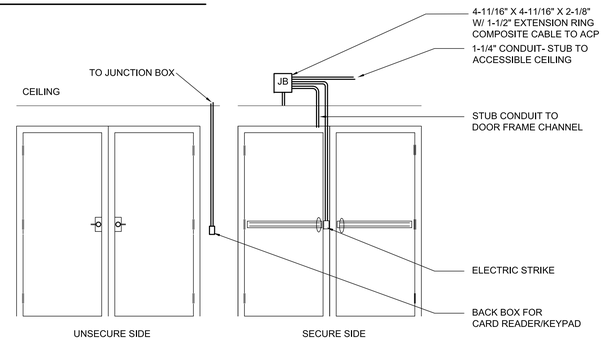
NOTE: ALL FACE PLATE COLORS SHALL BE OFF-WHITE; BLANK FILLERS ARE TO MATCH FACEPLATE COLOR.



NOTE: ALL INSERTS/JACKS SHALL BE COLOR CODED - SEE SPECIFICATIONS.

TELECOMMUNICATIONS LABELING DIAGRAM

NOTE: ALL OUTLETS AND PATCH PANELS SHALL BE LABELED PER THIS SCHEME, BOTH NEW AND EXISTING



NOTE:

1. ALL CONDUITS SHALL BE 3/4" UNLESS NOTED OTHERWISE.
2. REFER TO PLANS FOR EXACT DOOR SWING.
3. TYPICAL REQUIREMENTS - REFER TO DOOR HARDWARE SCHEDULE FOR ADDITIONAL DETAIL.

CARD READER ROUGH-IN DETAIL (1)

NO SCALE

CAFETERIA ADDITION AND REMODELING TO
LEWIS LEMON ELEMENTARY SCHOOL
ROCKFORD, ILLINOIS

RICHARD L. JOHNSON ASSOCIATES | ARCHITECTS

SHEET IDENTIFICATION
TELECOMMUNICATIONS DETAILS

PROJECT INFORMATION
Date: April 3, 2017
Rev. Date:
RLJA Proj: 2015-052

SHEET NUMBER
E108
OF
8

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