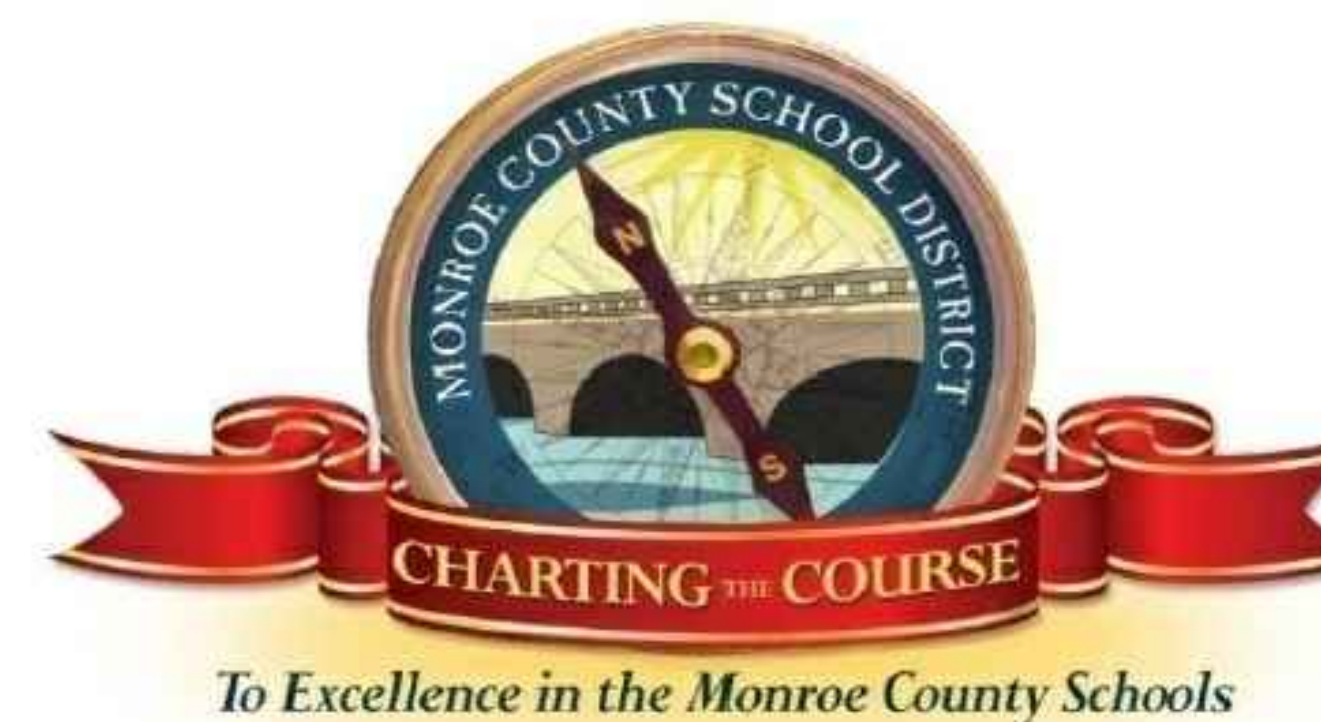


# HORACE O'BRYANT SCHOOL

## NEW BUS DROP OFF AND PICK UP LOOP

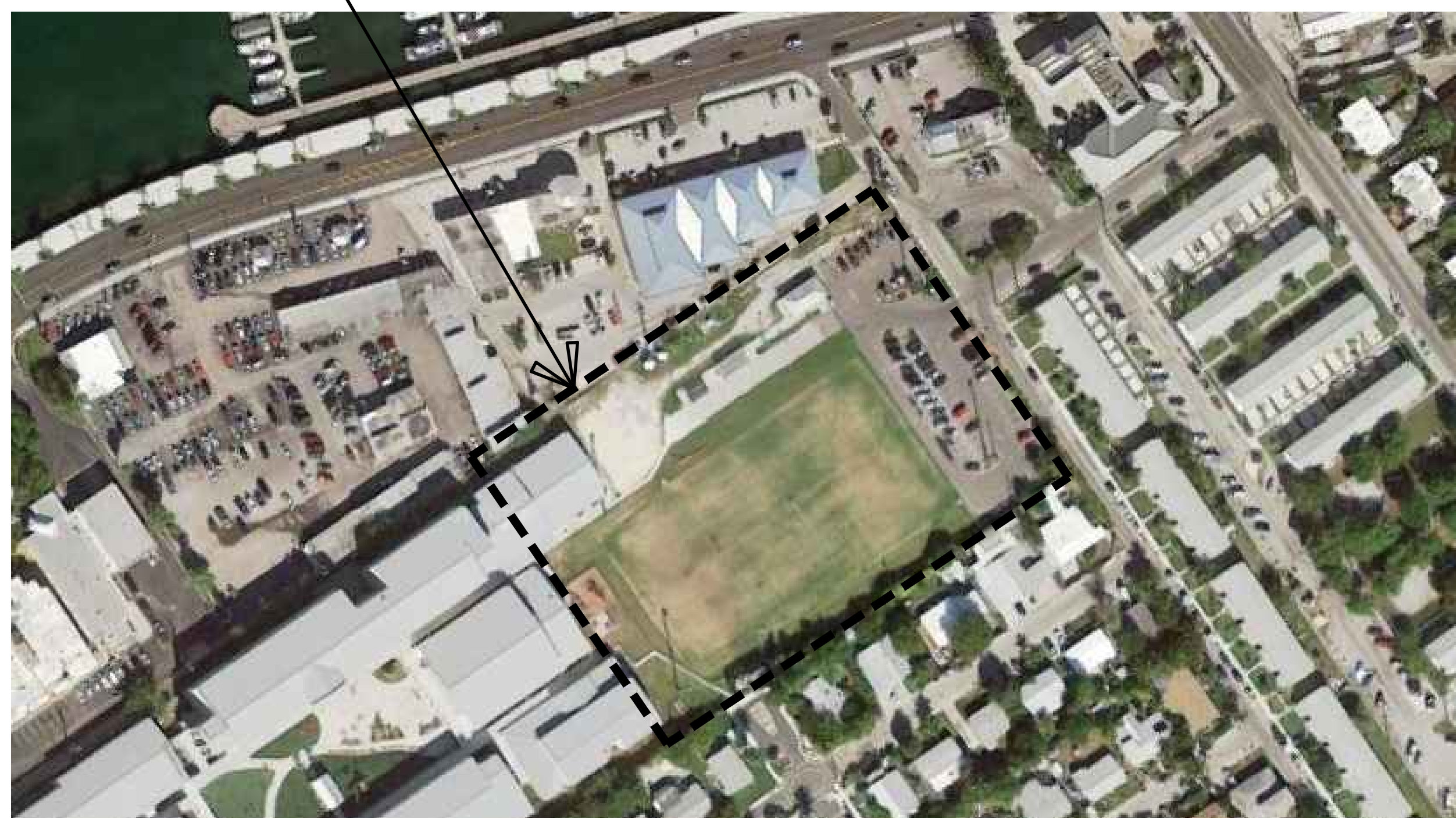


AREA OF WORK



SEAL

AREA OF WORK



INDEX OF SHEETS			
PAGE	DESCRIPTION	PAGE	DESCRIPTION
A-1	COVER SHEET		
A-2	PROPOSED SITE PLAN	E-0	ELECTRICAL GENERAL NOTES
A-3	PROPOSED ENLARGED SITE PLAN	E-1	ELECTRICAL SITE PLAN A
A-4	PROPOSED ENLARGED SITE PLAN	E-2	ELECTRICAL SITE PLAN B
A-5	SECTIONS, DETAILS, AND ELEVATIONS	E-3	ELECTRICAL DETAILS AND SCHEDULES
A-6	SECTIONS, DETAILS, AND ELEVATIONS	E-4	ELECTRICAL SPECIFICATIONS
A-7	SPECIFICATIONS		
		PH-1	SITE PHOTOMETRICS
EX-1	EXISTING SITE PLAN		
AD-1	DEMOLITION SITE PLAN	C-1	DRAINAGE PLAN
		C-2	DRIVEWAY PLAN
S-1	STRUCTURAL PLAN AND DETAILS	C-3	CIVIL DETAILS
S-2	STRUCTURAL PLAN AND DETAILS		

**SCOPE OF WORK**

SCOPE OF WORK TO INCLUDE THE DEMOLITION OF SOME SITE CONCRETE, ASPHALT, AND FENCES/GATES. NEW WORK TO INCLUDE A NEW ASPHALT BUS LOOP, NEW LANDSCAPE ISLAND, NEW CONCRETE WALKWAYS, NEW PREFABRICATED ALUMINUM CANOPY FOR A COVERED WALKWAY, RECONFIGURATION OF EXISTING CURBS IN THE EXISTING PARKING LOT, NEW SITE LIGHTING, RELOCATED BLEACHERS, NEW CROSS WALKS WITH DETECTABLE WARNING, AND RELOCATED TREES.

**SITE DATA**

SITE AREA: PARCEL 'B' = 108,621 S.F.  
 LAND USE: PS (PUBLIC AND SEMI-PUBLIC SERVICES DISTRICT)  
 FLOOD ZONE: AE +6.0'  
 SETBACKS:  
 FRONT SETBACK: REQUIRED = 20'-0" EXISTING TO REMAIN  
 PROPOSED =  
 SIDE SETBACK: REQUIRED = 15'-0" EXISTING TO REMAIN  
 PROPOSED =  
 STREET SIDE SETBACK: REQUIRED = 15'-0" EXISTING TO REMAIN  
 PROPOSED =  
 REAR SETBACK: REQUIRED = 20'-0" EXISTING TO REMAIN  
 PROPOSED =  
 MAXIMUM HEIGHT: REQUIRED = 25'-0" EXISTING TO REMAIN  
 PROPOSED =  
 BUILDING COVERAGE AREA:  
 REQUIRED: 40% MAX(43,448 SF)  
 EXISTING: 1,280 SF  
 PROPOSED: 3,556 SF  
 IMPERVIOUS AREA:  
 REQUIRED: 60% MAX(65,172 SF)  
 EXISTING: 36,611 SF  
 PROPOSED: 46,840 SF

**DESIGN CRITERIA**

THE FLORIDA BUILDING CODE 2014 EDITION, AS AMENDED BY GOVERNING LOCAL ORDINANCES AND REQUIREMENTS OF THE STATE OF FLORIDA 'COASTAL ZONE PROTECTION ACT', TOGETHER WITH APPLICABLE REQUIREMENTS OF GOVERNING PUBLIC AGENCIES AND THE FOLLOWING LISTED CODES SHALL APPLY TO THIS PROJECT

NATIONAL ELECTRIC CODE, 2014 EDITION WIND LOADING SHALL BE BASED ON ASCE 7-10 180 MPH WIND LOADING. NOTE ANY REFERENCE TO WIND LOADING FOUND IN THE DRAWINGS OR SPECIFICATIONS WHICH DIFFERS FROM THE ABOVE SHALL BE SUPERCEDED BY THIS STATEMENT.

THESE DRAWINGS MAY NOT BE REPRODUCED WITHOUT WRITTEN AUTHORIZATION BY WILLIAM P. HORN

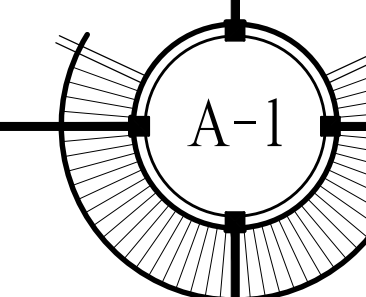
DATE  
03-27-2017 BID SET

REVISIONS

DRAWN BY  
EVK

PROJECT NUMBER  
1618

NEW BUS DROP OFF PICK UP  
HORACE O' BRYANT MIDDLE SCHOOL  
1105 LEON STREET  
KEY WEST, FLORIDA





SEAL

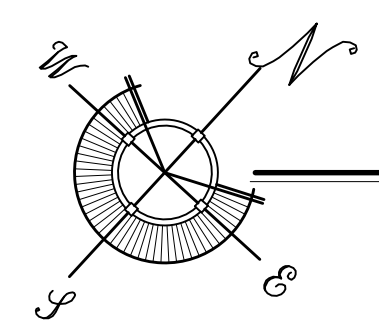
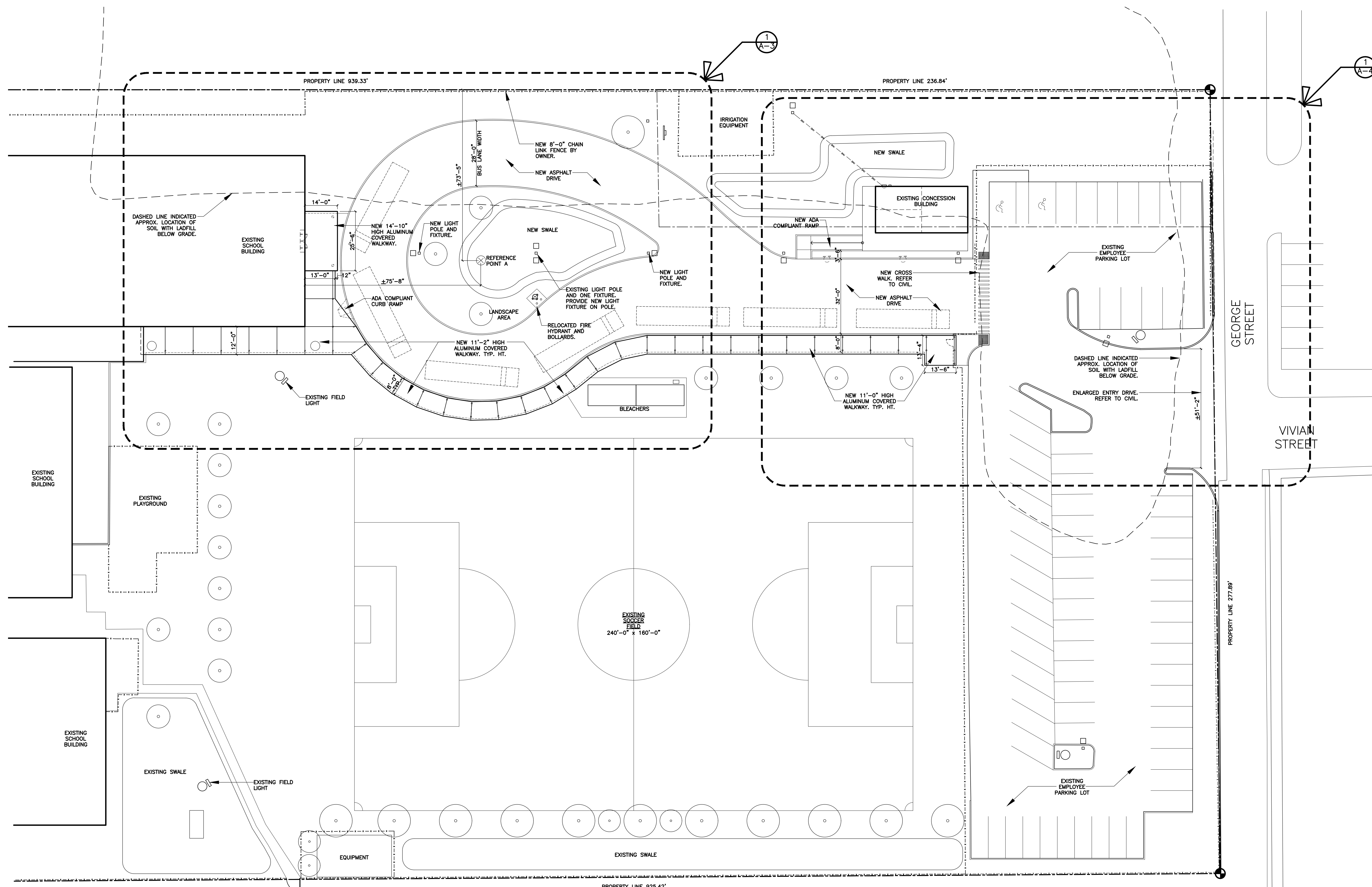
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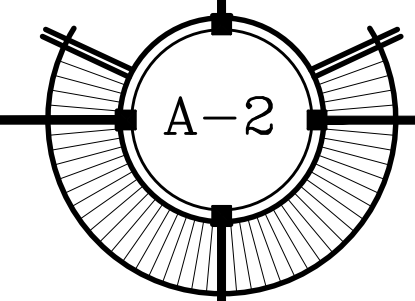
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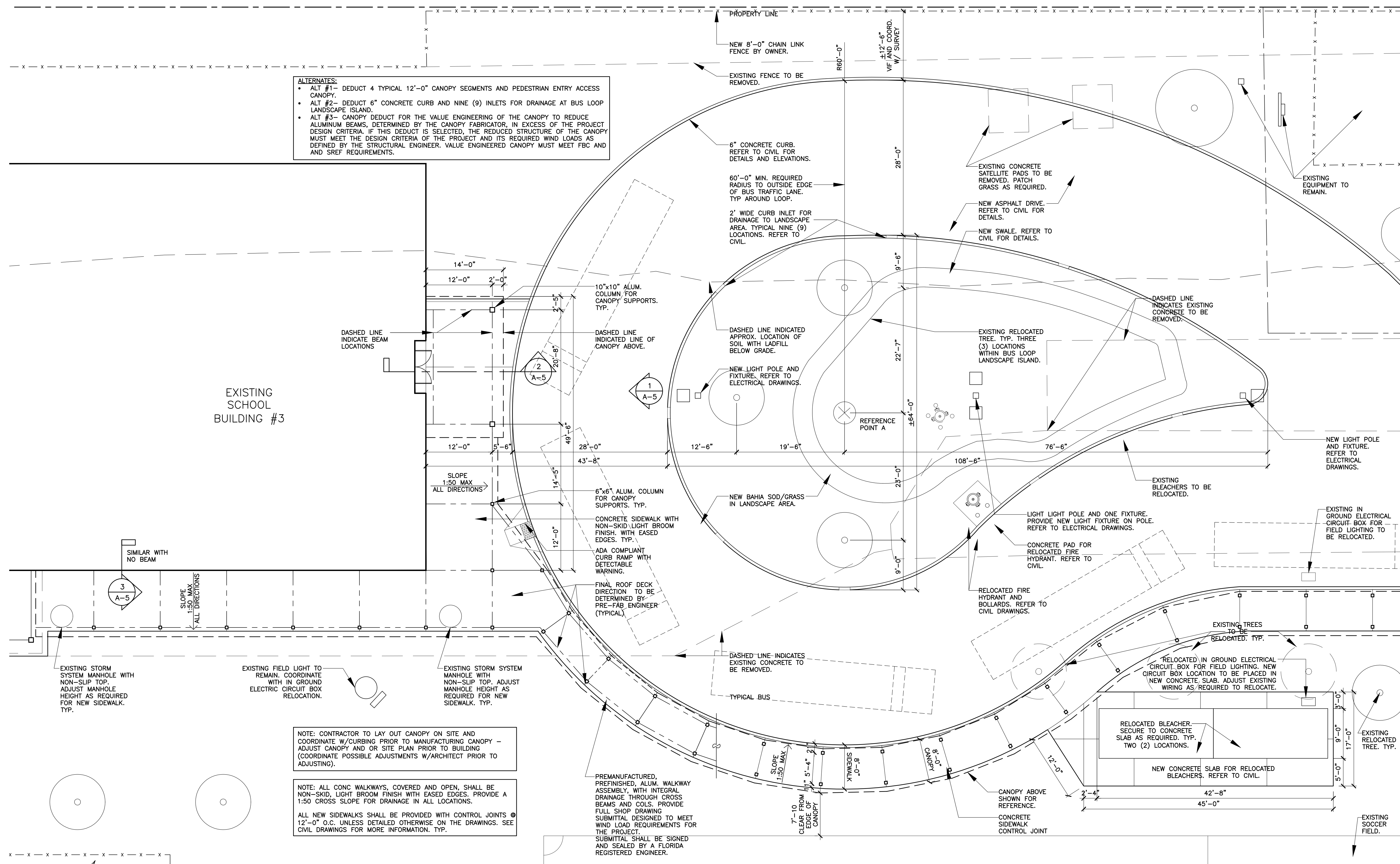


**PROPOSED SITE PLAN**

ALL SITE INFORMATION OBTAINED FROM SURVEY  
BY REECE & ASSOCIATES ON 11-28-2016. SCALE: 1"=20'-0"

**NEW BUS DROP OFF / PICK UP  
HORACE O' BRYANT MIDDLE SCHOOL**  
1105 LEON STREET  
KEY WEST, FLORIDA





**ALTERNATES:**

- ALT #1- DEDUCT 4 TYPICAL 12'-0" CANOPY SEGMENTS AND PEDESTRIAN ENTRY ACCESS CANOPY.
- ALT #2- DEDUCT 6" CONCRETE CURB AND NINE (9) INLETS FOR DRAINAGE AT BUS LOOP LANDSCAPE ISLAND.
- ALT #3- CANOPY DEDUCT FOR THE VALUE ENGINEERING OF THE CANOPY TO REDUCE ALUMINUM BEAMS, DETERMINED BY THE CANOPY FABRICATOR, IN EXCESS OF THE PROJECT DESIGN CRITERIA. IF THIS DEDUCT IS SELECTED, THE REDUCED STRUCTURE OF THE CANOPY MUST MEET THE DESIGN CRITERIA OF THE PROJECT AND ITS REQUIRED WIND LOADS AS DEFINED BY THE STRUCTURAL ENGINEER. VALUE ENGINEERED CANOPY MUST MEET FBC AND AND SREF REQUIREMENTS.

NOTE: CONTRACTOR TO LAY OUT CANOPY ON SITE AND COORDINATE W/CURBING PRIOR TO MANUFACTURING CANOPY - ADJUST CANOPY AND OR SITE PLAN PRIOR TO BUILDING (COORDINATE POSSIBLE ADJUSTMENTS W/ARCHITECT PRIOR TO ADJUSTING).

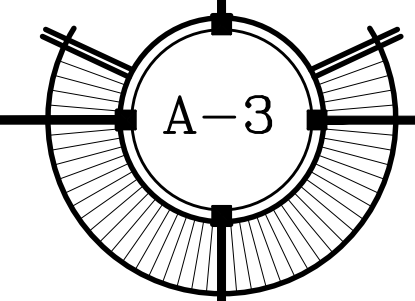
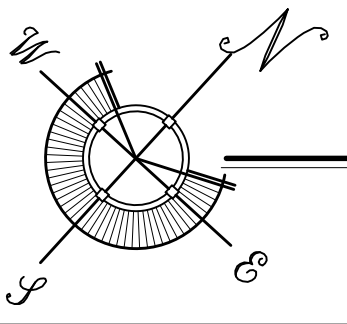
NOTE: ALL CONC WALKWAYS, COVERED AND OPEN, SHALL BE NON-SKID, LIGHT BROOM FINISH WITH EASED EDGES. PROVIDE A 1:50 CROSS SLOPE FOR DRAINAGE IN ALL LOCATIONS.  
ALL NEW SIDEWALKS SHALL BE PROVIDED WITH CONTROL JOINTS @ 12'-0" O.C. UNLESS DETAILED OTHERWISE ON THE DRAWINGS. SEE CIVIL DRAWINGS FOR MORE INFORMATION. TYP.

PREMANUFACTURED, PREFINISHED, ALUM. WALKWAY ASSEMBLY, WITH INTEGRAL DRAINAGE THROUGH CROSS BEAMS AND COLS. PROVIDE FULL SHOP DRAWING SUBMITTAL DESIGNED TO MEET WIND LOAD REQUIREMENTS FOR THE PROJECT. SUBMITTAL SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED ENGINEER.

ENLARGED SITE PLAN

ALL SITE INFORMATION OBTAINED FROM SURVEY  
BY REECE & ASSOCIATES ON 11-28-2016 SCALE: 1/8"=1'-0"

NEW BUS DROP OFF / PICK UP  
HORACE O' BRYANT MIDDLE SCHOOL  
1105 LEON STREET  
KEY WEST, FLORIDA



SEAL

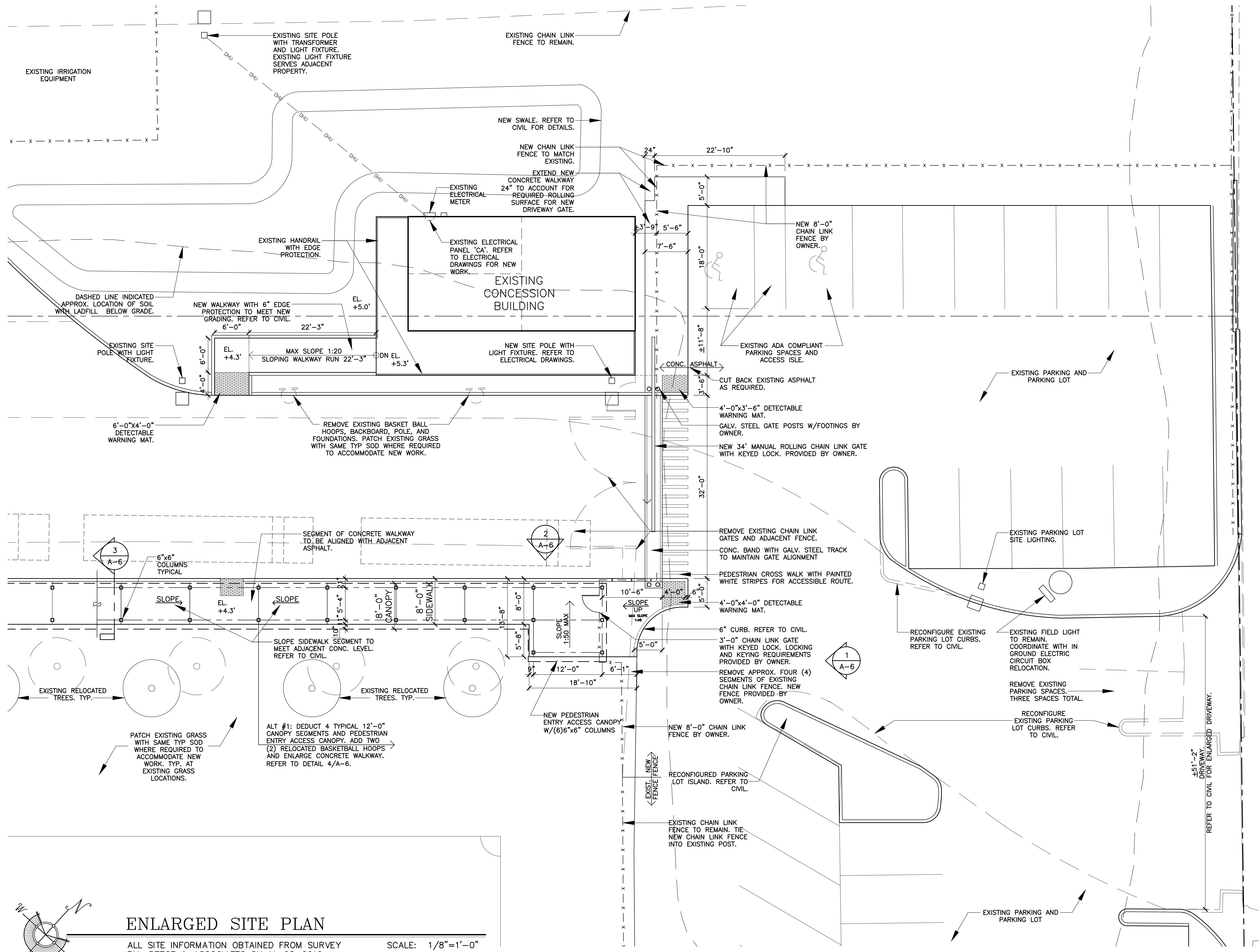
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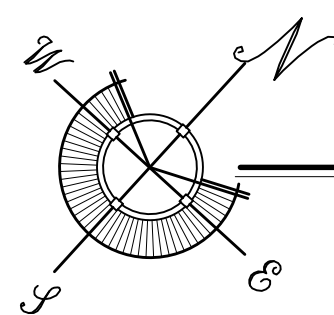
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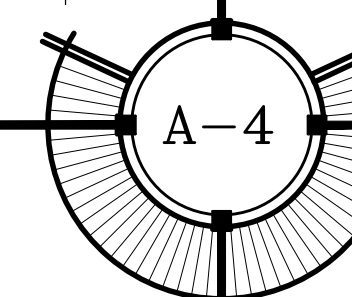
ENLARGED SITE PLAN

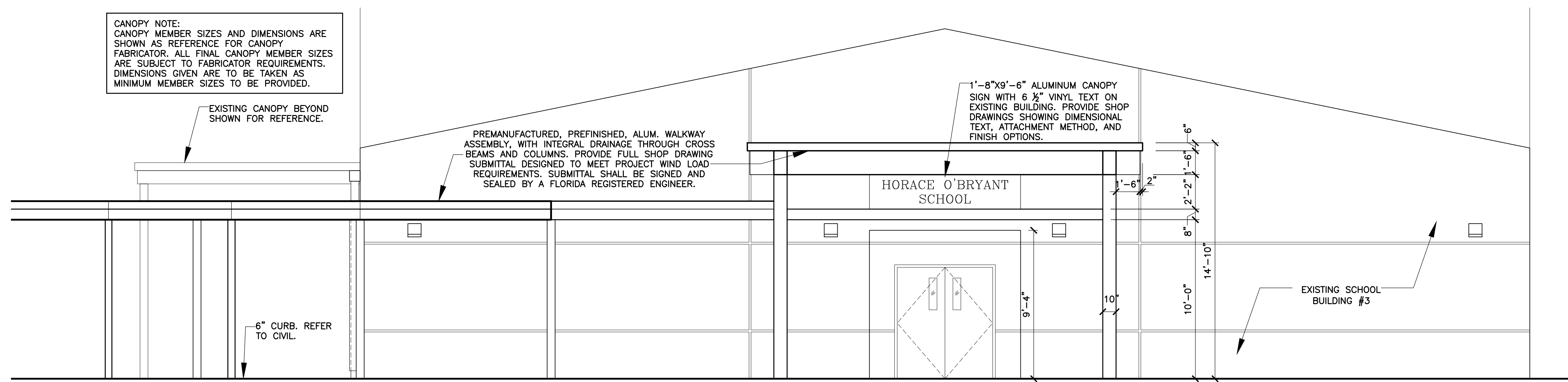
ALL SITE INFORMATION OBTAINED FROM SURVEY  
BY REECE & ASSOCIATES ON 11-28-2016.

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



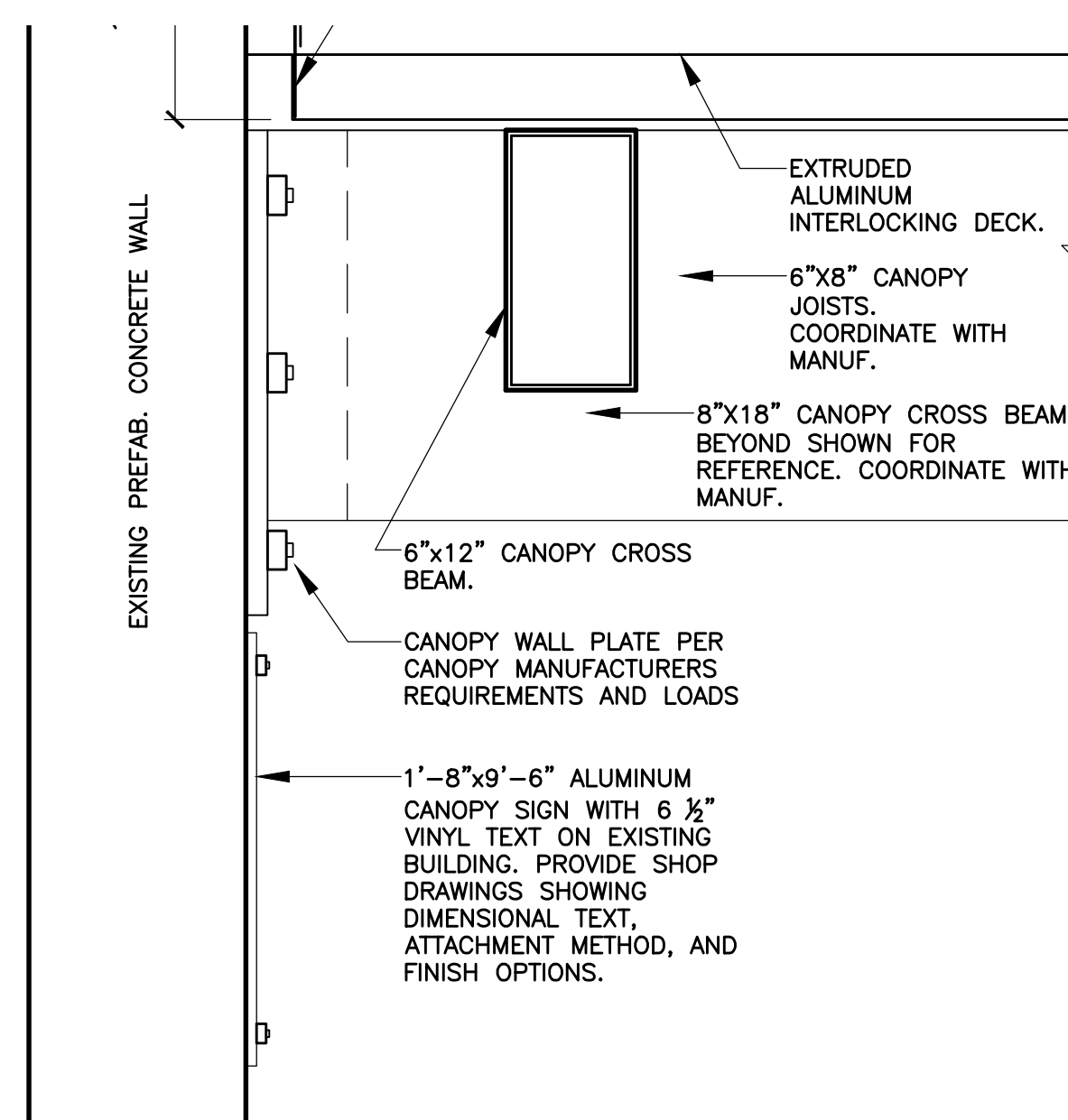
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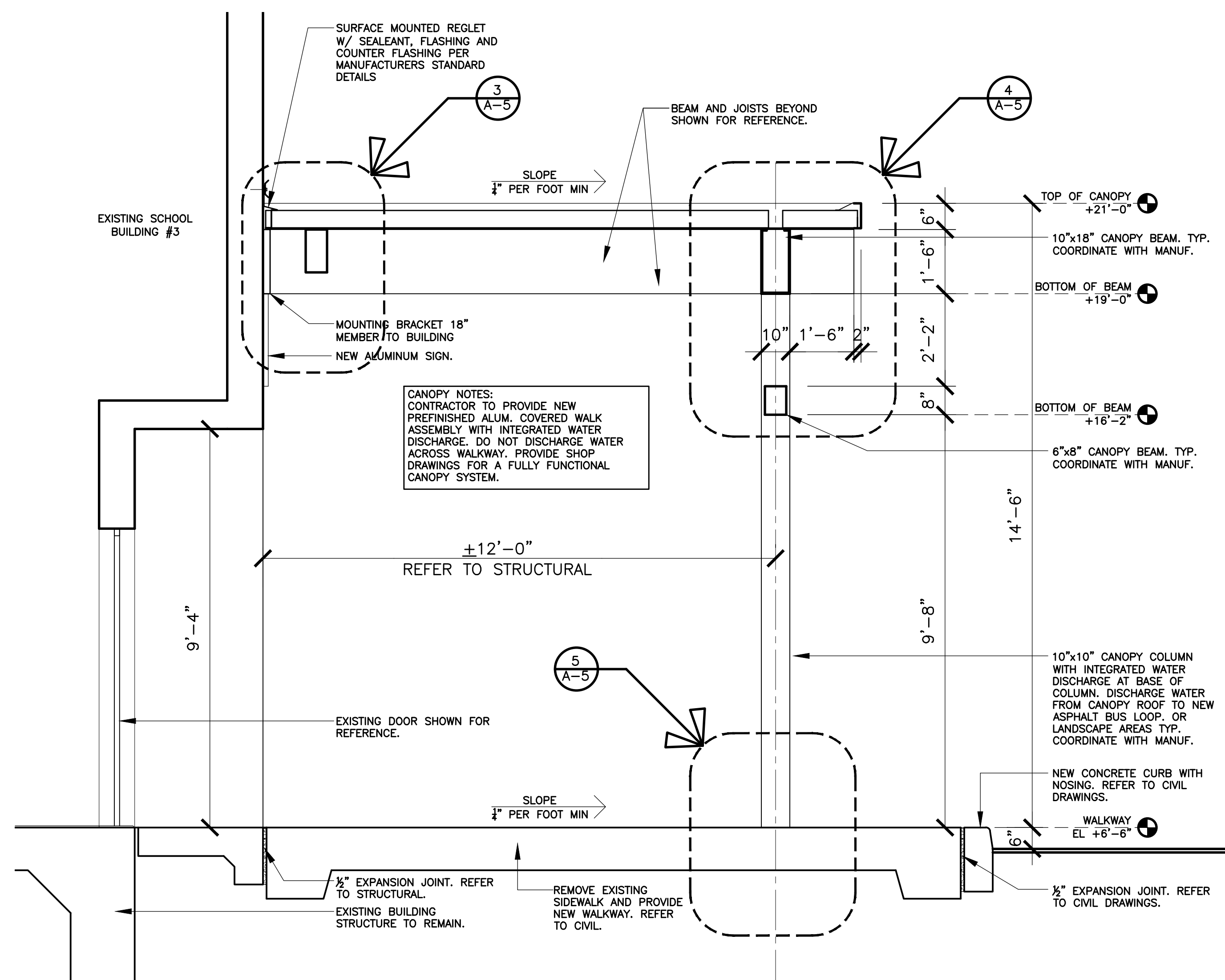
1  
A-5 WALKWAY ELEVATION

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



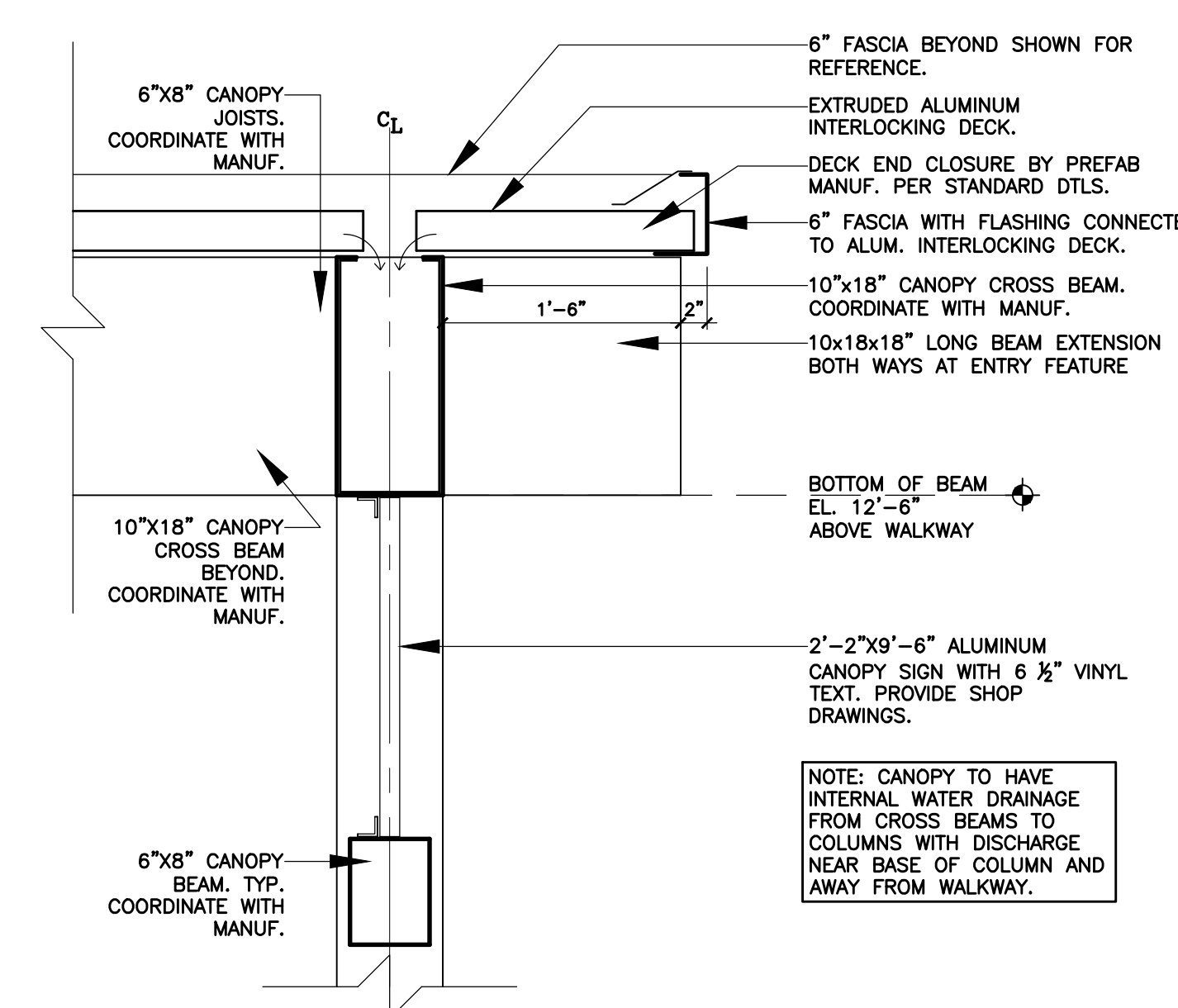
3  
A-5 WALKWAY ELEVATION

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



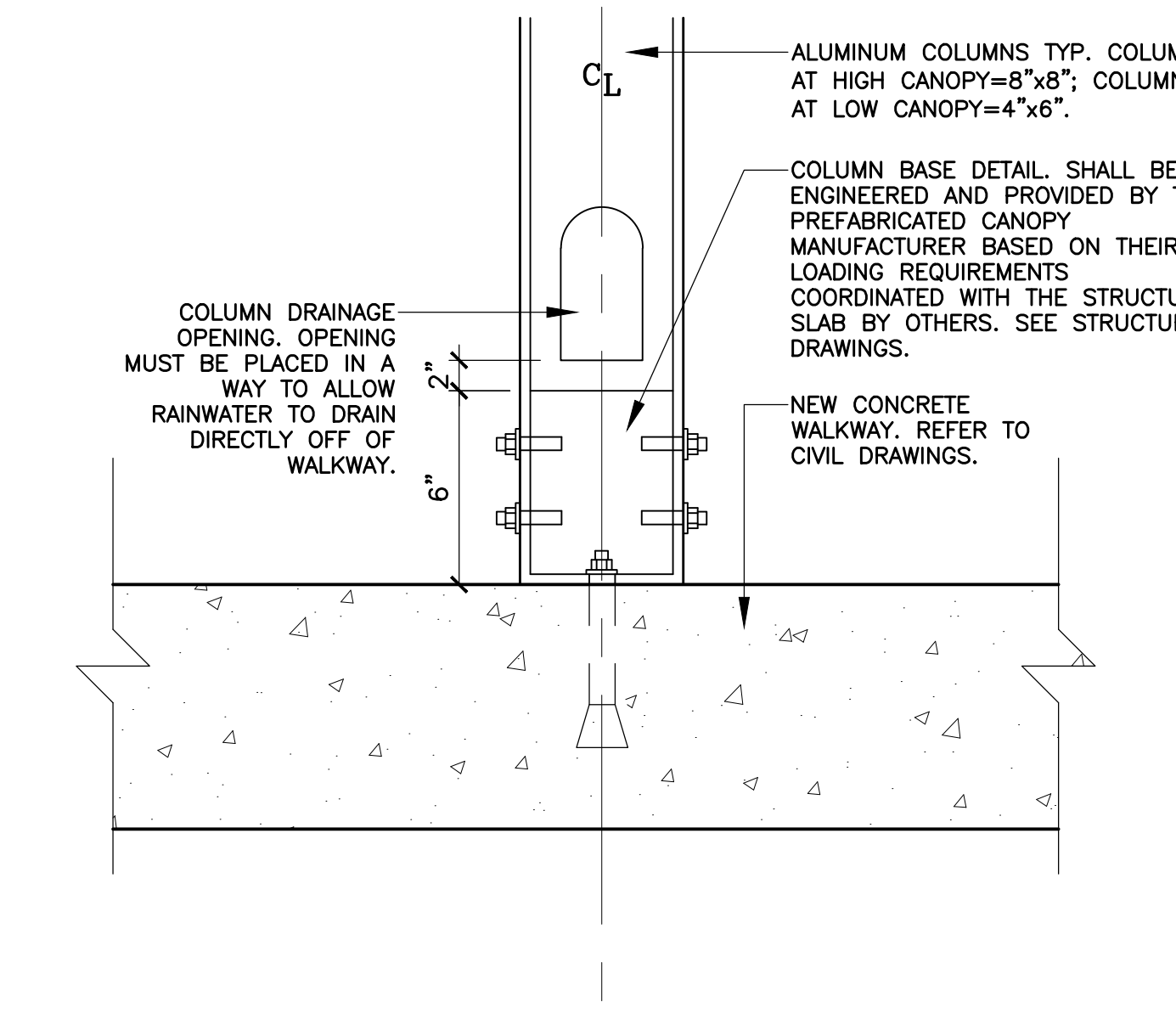
2  
A-5 SECTION DETAIL

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



4  
A-5 SECTION DETAIL

SCALE: 1" = 1'-0"



5  
A-5 SECTION DETAIL

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

SEAL

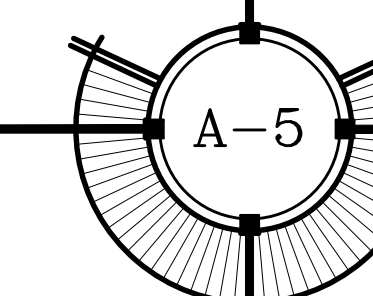
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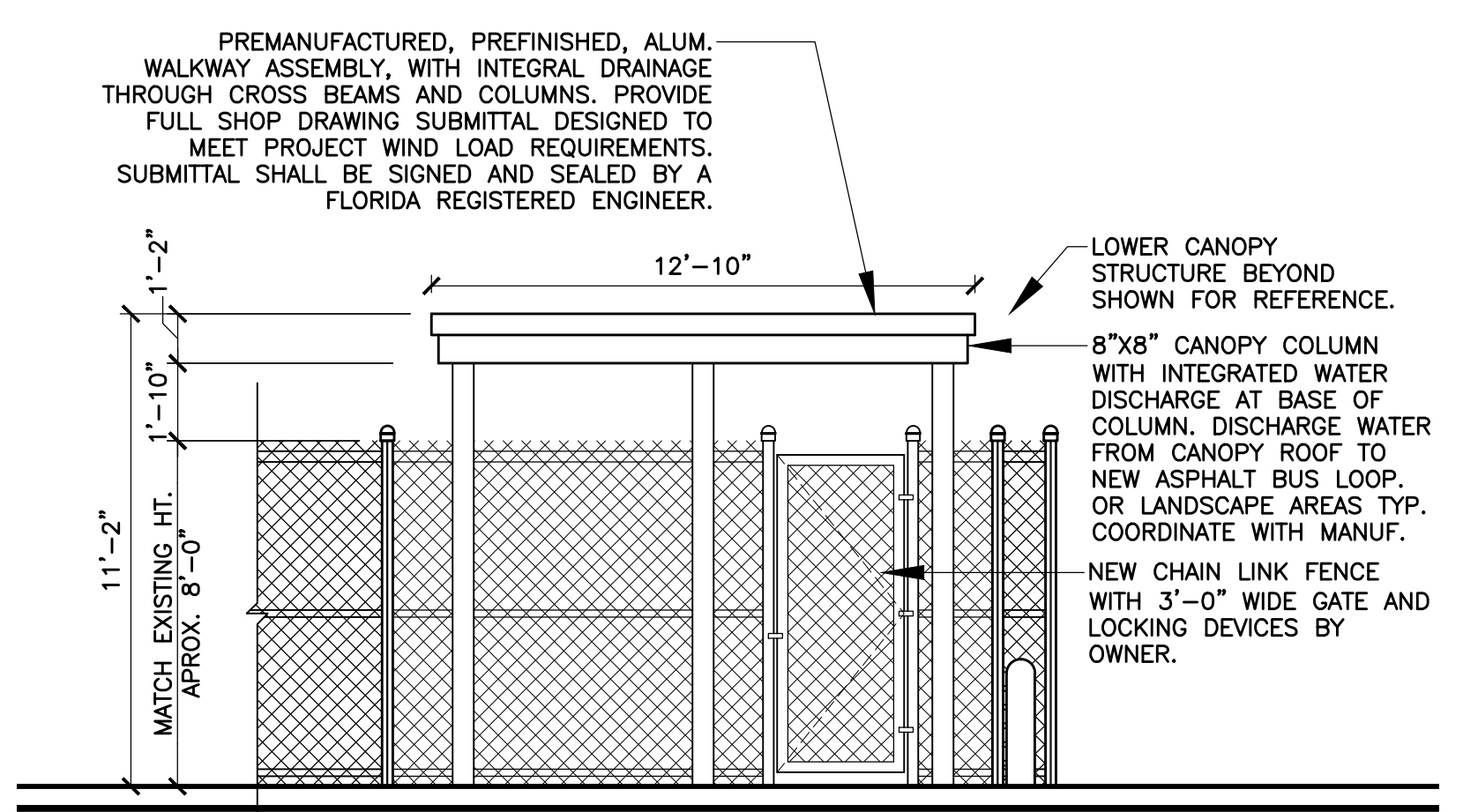
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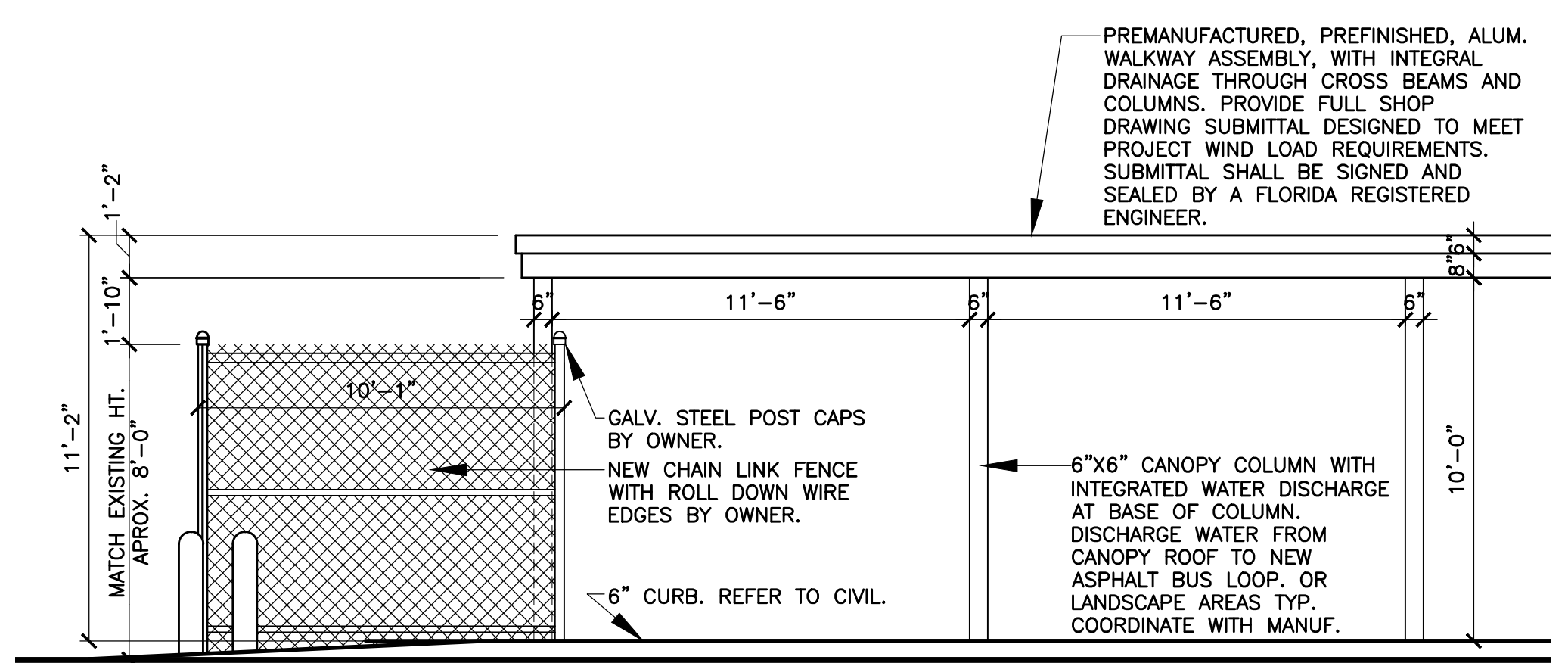
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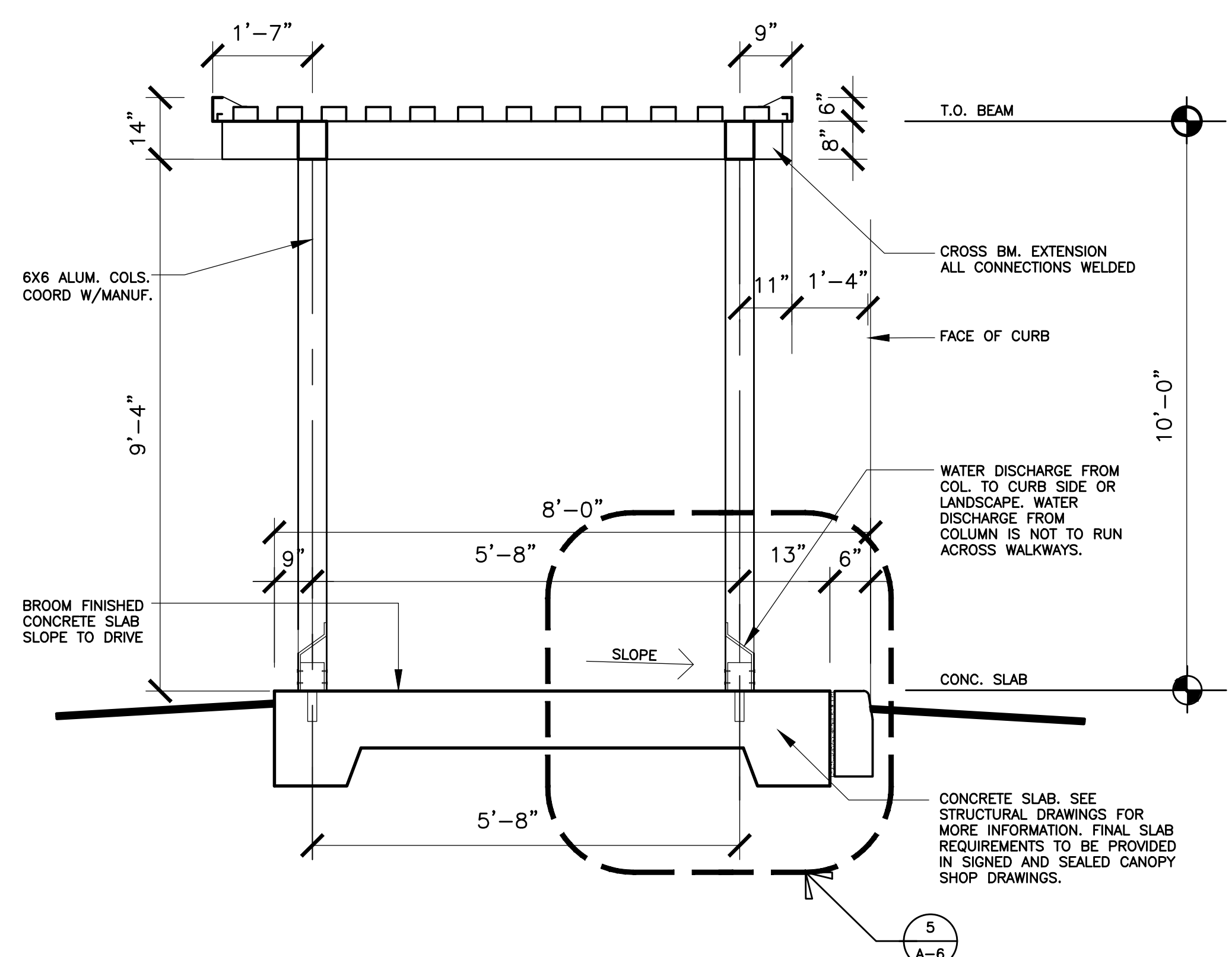




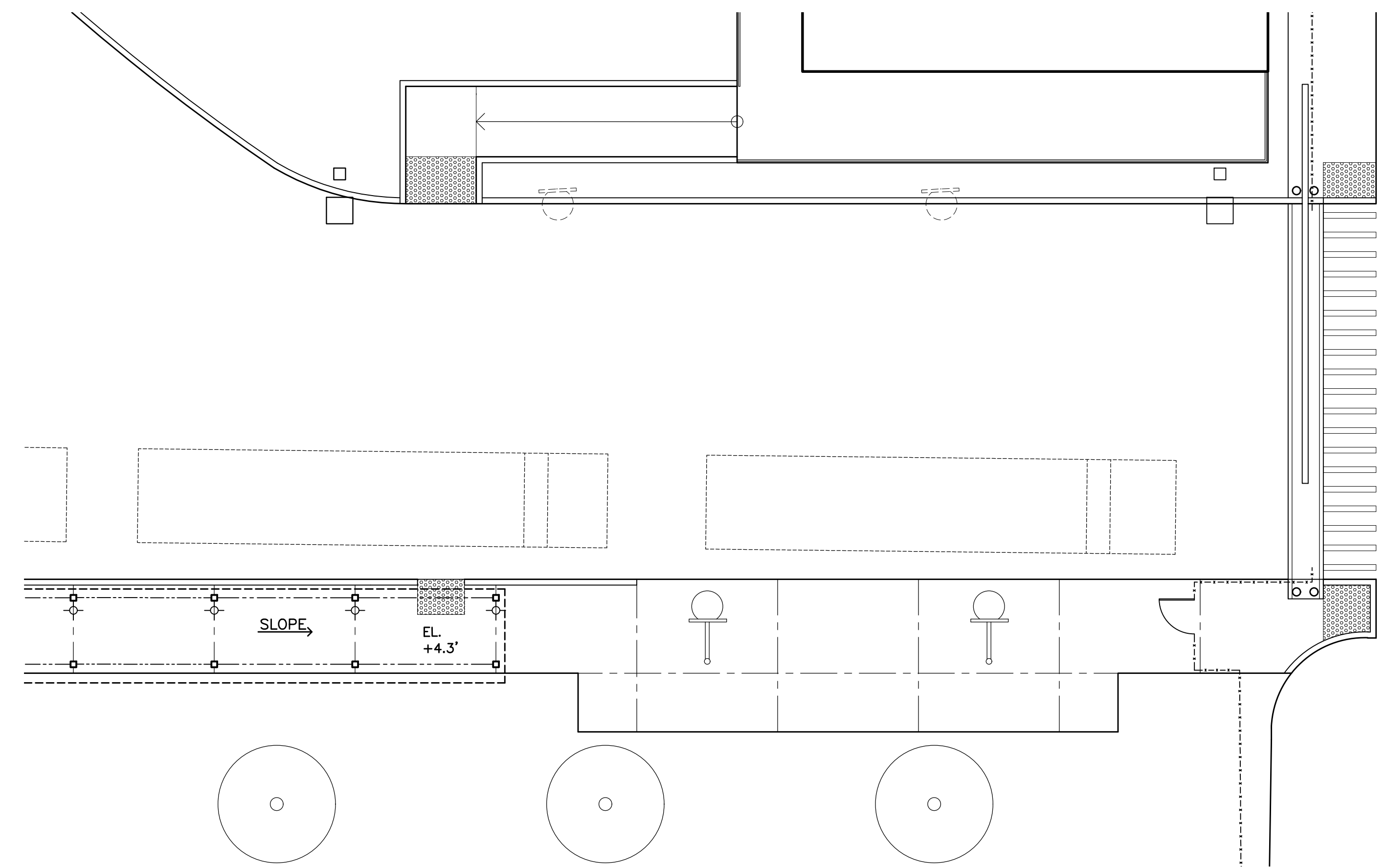
1  
A-6  
**CANOPY ELEVATION**  
SCALE: 1/4" = 1-0"



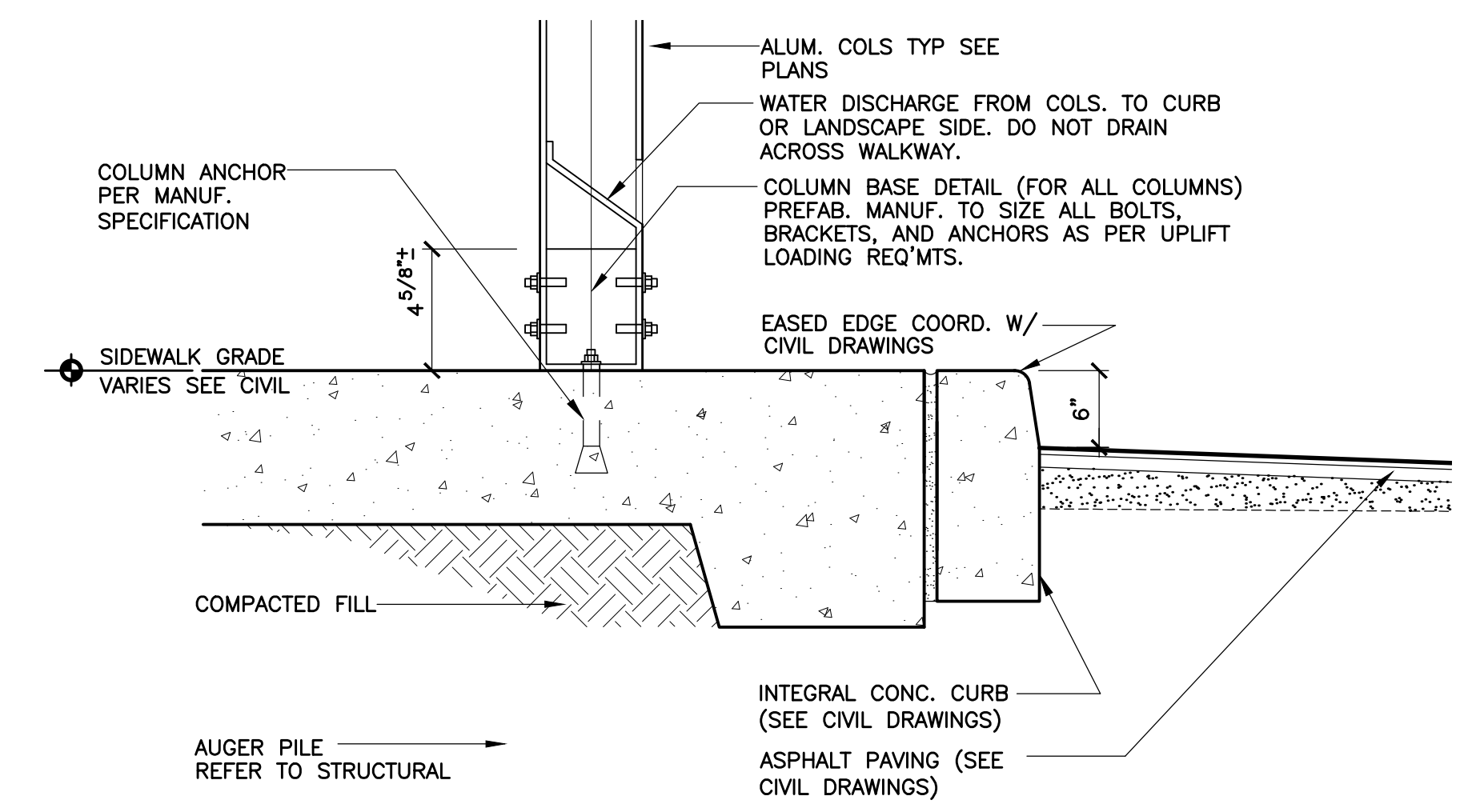
2  
A-6  
**CANOPY ELEVATION**  
SCALE: 1/4" = 1-0"



3  
A-6  
**TYPICAL CANOPY SECTION**  
SCALE: 1/2" = 1-0"



4  
A-6  
**ALT #1 ENLARGED PLAN**  
SCALE: 1/8" = 1-0"



5  
A-6  
**SECTION DETAIL**  
SCALE: 1" = 1-0"

SEAL

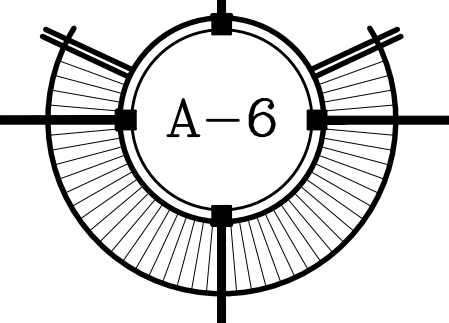
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**01800 - GENERAL REQUIREMENTS**

Project Description The Contractor shall furnish all labor and materials required and necessary to provide a complete habitable, weatherproof, safe and secure finish building, suitable for human occupancy in accordance with Specifications, Drawing and Project Documents.

The General Condition of the Contract, AIA Document A201, latest edition, are hereby made a part of these Construction Documents and shall apply to this Project.

The Florida Building Code 2014 Edition, as amended by Governing Local Ordinances and requirements of the State of Florida "Coastal Zone Protection Act", together with applicable requirements of governing public agencies and the following listed codes shall apply to this project.  
Florida Building Code-Accessibility, 2014 Edition  
Florida Building Code-Energy Conservation, 2014 Edition  
National Electric Code Latest Edition  
Florida Plumbing Code, 2014 Edition  
Florida Mechanical Code, 2014 Edition  
Florida Fuel Gas Code, 2014 Edition

FEMA: Coordinate all building items required to be above flood elevation for project and other FEMA regulations that apply to the project.  
Contractor shall visit the site to become familiar with existing conditions and requirements of construction prior to bidding.  
Contractor shall complete new work in conformance with these drawings. Notify Architect if conflicts appear or are uncovered during the progress of the work prior to any field modifications or construction. Deviations from permitted drawings without Architects prior written approval shall be at the Contractors responsibility. Contractor is to verify all dimensions of project prior to proceeding with construction. Notify architect of any conflicts or problems so solutions can be achieved prior to construction. In event of conflict between drawings and specifications the most stringent requirements shall apply. Verification shall include, but not limited to, coordination of site work, existing conditions, buildings and utilities. Contractor to physically lay out all items on site, and verify that all items fit on site prior to starting construction. Verify that architectural plans and foundation plans dimensions and elevations work on the actual site prior to starting any construction. Notify architect of any conflicts so solution can be worked out prior to construction.

Contractor shall provide all subcontractors complete set of drawings, including drawings from other disciplines. Change orders will not be allowed because a subcontractor only looked at drawings for his discipline and not other disciplines. Contractor must review all drawings and notify Architect of any conflicts. If a conflict arises assume worst case scenario for bidding and or Construction (or notify Architect for clarification prior to bidding). General Contractor is responsible for reviewing the complete set of drawings and specifications and assuring that his and his subcontractors bids include complete work and systems (free of conflict with other contractors and subcontractors). Contractor and subcontractor shall follow industry standards for each discipline. Drawings do not show every condition, fastener, etc. . If something is not detailed, follow industry standards. Provide complete functioning systems.

Contractor needs to coordinate final color selections with owner and architect prior to ordering items. Factory finished items such as roofing, windows + doors need color + finish selections verified in writing by owner + architect prior to ordering.

General Notes:

- A. Engineer's approval must be secured for all structural substitutions.
- B. Prior to installation of electrical equipment or other items to be attached to the structure, engineer's approval of connections and supports shall be obtained. Unless specifically detailed on architectural and structural drawings, respective sub-contractor shall furnish all hangers, connections, etc., required for installation of items.
- C. Provide all embedded items in structure as noted on architectural, mechanical, electrical as well as structural drawings. Miscellaneous embedded items and anchor bolts shall be furnished by steel supplier and installed by concrete contractor.
- D. Contractor to verify all dimensions before proceeding with any new work, including layout of the entire project on site for verification of setbacks, elevations and location of existing trees.
- E. Provide temporary bracing and precautions necessary to withstand all construction and/or wind loads until all field connections are completed and decks are in place. All shoring is the responsibility of the contractor.
- F. Submit shop and erection drawings for all items required by the drawing or elsewhere in the specifications for written approval. The manufacture or fabrication of any items prior to written approval of shop drawings will be entirely at the risk of the contractor. All references to standards to be of the latest issue applicable.
- G. This project is in a coastal salt water environment. Contractor shall consider this in selections of materials used in the exterior and non-air conditioned areas. All materials shall be salt resistant.
- H. Manufactured assemblies shall require detailed shop drawing submittals. Miami Dade N.O.A'S providing tested assembly installation details and windload compliance are required. Manufacturers recommendations and requirements (including warranty requirements) shall be incorporated along with the latest industry standards and best practices. All final color selections or finishes shall be coordinated and verified with the owner and architect prior to ordering (typical).
- I. If in the event of conflicting, or overlapping requirements in any area of the proposed documents, technical specifications, or drawings, the most stringent condition shall be proposed and constructed.

**DIVISION 2 - SITE AND CIVIL WORK (See Civil Also)**

02250 - Demolition shall include the removal of all items as indicated on the drawings, as well as incidental items necessary for new work to progress. All work shall be done in a workman like manner with minimal disturbance to existing to remain; see structural specifications for temporary shoring and bracing. All unwanted material to be removed from the site and properly disposed of. Unless noted otherwise, patch all areas to remain to match existing in areas damaged by demolition.

02361 - Termite Control: Provide soil treatment for termite control at slabs on grade including foundations and slab penetrations, if any. Formulate and apply termiticides, and label with a federal registration number, to comply with EPA regulations and authorities having jurisdiction. Use only soil treatment solutions not harmful to plants. Apply at label volume and rate per EPA- registered label with application by a licensed pest control operator. Provide a soil treatment application report for owners record and use.

02500 - Walks - Walkways shall be light broom finish concrete unless noted. see civil and structural drawings for more information.

02820 - Chain Link Fence - Chain link fences are to be hot-dipped, galvanized steel with top, middle, and bottom bars. Posts and bars to be schedule 40 steel. Provide galvanized steel post caps and accessories. Fence to meet ASTM A53-06 standard specifications. Contractor to provide foundation for fence as indicated on the drawing set.

02855 - Underground Utilities - Contractor shall include in his work all underground (and above) utility work for all systems to make a complete system from buildings to street hook-ups as required to complete the job.

**02900 - Landscaping and Top Soil:**

1. All plant material is to be Florida No. 1 or better. Florida Department of Agriculture grades and standards, Parts I & II 1973, 1975 respectively.
2. All trees to be staked in a good workmanlike manner. No nail staking permitted. (Refer to planting details).
3. Landscape plan shall be installed in compliance with all local codes.
4. All tree holes to be back filled around and under root ball with planting soil.
5. Sod shall be Bahia solid sod laid with alternating and abutting joints, with 2" top soil minimum if required. (See specs).
6. All trees, shrubs and groundcovers shall be guaranteed for one year.
7. All planting beds shall be weed and grass free.
8. All trees, palms, shrubs and groundcover plants shall be fertilized at installation, with long lasting fertilizer, according to manufacturer's recommendations. (Submit sample for approval). (See specs).
9. Landscape contractor shall locate and verify all underground utilities prior to digging.
10. No change shall be made without the prior consent of the Architect.
11. All material is subject to availability at time of installation. Substitutions may be made after consultation with Landscape Architect.
12. Contractor will visit site to familiarize himself with the scope of work prior to submitting a bid.
13. Landscape contractor to coordinate his work with the general contractor and the electrical contractor.
14. All existing plant material to remain shall be protected. (Refer to demolition plan).
15. All trees to be relocated will get root pruned 30 days min. (or more if required by the species). Upon relocation, thin out (under landscape architect's direction) 30% of the, to be relocated tree, canopy.
16. After removal or relocation of existing trees and palms, backfill tree pit with planting soil and sod disturbed area, as required.
17. All trees on sod areas shall receive a mulch ring 2' in diameter typical.
18. All trees shall have a 2" caliper at D.B.H. minimum of 10' height tree.
19. All 1 gallon material to have 12" spread minimum, all 3 gallon material to have 20-24" spread minimum.

**DIVISION 3 - CONCRETE (See Structural)**

**DIVISION 4 - MASONRY (Not Used)**

**DIVISION 5 - METALS (See Structural)**

**05500 - Aluminum Fabrications**

A. All structural members shall conform to ASTM B221 specification- Aluminum Alloy Extrude Bar, Rod, Wire, Shape and Tube.

1. Extruded aluminum: ASTM B221, Alloy 6063, Temper T-6.
  2. Sheet aluminum: ASTM B209 6063, Temper T-6.
- B. Provide Shop drawings showing layout, dimensions, profiles, spacing of components, and anchorage and installation details. Drawings shall be signed and sealed by a Florida registered Engineer (Typical).
1. Submit complete shop drawing for all structural components. Drawings shall include all shop and erection details. Including dates, copes, connections, holes, bolts, shim plates and welds in structural steel. All welds, both shop and field, shall be indicated on the details on the shop drawings by standard welding symbols given in the AISC Manual.
  2. Contractor shall check shop drawings for field coordination of elevation and dimensions prior to submittal.
  3. All guardrails and handrails shall have welded connections of all members and have a shop applied powder coat finish (see paint spec's).
  4. All guardrails and handrails shall meet required codes for handicap compliance, structural compliance and size requirements.
- C. Provide aluminum caps for exposed open extruded aluminum sections and for attachment of components to posts.
- D. Do not install bent, bowed, or otherwise damaged components. Remove damaged components from site and replace.

**DIVISION 6 - WOOD AND PLASTICS (Not Used)**

**DIVISION 7 - THERMAL AND MOISTURE PROTECTION (Not Used)**

**DIVISION 8 - DOOR AND WINDOWS (Not Used)**

**DIVISION 9 - FINISHES**

09900 - Painting - This section includes surface preparation, painting, and finishing of exposed exterior items and surfaces. Surface preparation, priming, and finish coats specified in this section are in addition to shop priming and surface treatment specified under other sections.

- A. Paint exposed surfaces whether or not colors are designated in "schedules", except where a surface or material is specifically indicated not to be painted or is to remain natural. Where an item or surface is not specifically mentioned, paint the same as similar adjacent materials or surfaces. If color or finish is not designated, the architect will select from standard colors or finishes available.
1. Painting includes field painting exposed bare and covered pipes and ducts (including color coding), hangers, exposed steel and iron work, and primed metal surfaces of mechanical and electrical equipment.
  2. Painting is not required on prefinished items, finished metal surfaces, concealed surfaces, operating parts, and labels.
  3. Labels: do not paint over Underwriter's Laboratories, Factory Mutual or other code-required labels or equipment name, identification, performance rating, or nomenclature plates.
- B. Submit Data: Manufacturer's technical information, label analysis, and application instructions for each material proposed for use.
1. List each material and cross-reference the specific coating and finish system and application. Identify each material by the manufacturer's catalog number and general classification.

2. Samples for initial color selection in the form of manufacturer's color charts. The exterior will have four colors minimum, one being special order color. The interior will have three colors minimum, one being a special order color.

C. Provide samples of each color and materials to be applied, with texture to simulate actual conditions, or representative samples of actual substrate. Define each separate coat, including block fillers and primers. Use representative colors when preparing samples for review. Resubmit until required sheen, color, and texture are achieved.

1. Provide a list of material and application for each coat of each sample. Label each sample as to location and application.
2. Electrostatically applied colored polyester powder coating heat cured to chemically bond finish to metal substrate.
3. Minimum hardness measured in accordance with ASTM D3363: 2H.
4. Direct impact resistance tested in accordance with ASTM D2794. Withstand 160 inch-pounds.
5. Salt spray resistance tested in accordance with ASTM B117: No undercutting, rusting, or blistering after 500 hours in 5 percent salt spray at 95 degrees F and 95 percent relative humidity and after 1000 hours less than [3/16 inch] [5 mm] undercutting.
6. Weatherability tested in accordance with ASTM D822: No film failure and 88 percent gloss retention after 1 year exposure in South Florida with test panels tilted at 45 degrees.
7. Firm with manufacturing and delivery capacity required for the project, shall have successfully completed at least ten projects within the past five years, utilizing finish systems, and techniques as herein specified.
8. Supplier must own and operate its own Painting and Finishing facility to assure single source responsibility and quality control.
9. All materials shall be protected during finishing, shipment, site storage and erection to prevent damage to the finished work from other trades. Store materials inside a well-ventilated area, away from uncured concrete and masonry, and protected from the weather, moisture, soiling, abrasion, extreme temperatures, and humidity.
10. Clean all surfaces following installation. If necessary use only a mild soap or detergent solution such as TSP-90 or Ivory with a soft cloth to remove dirt and hand prints. Black handling marks can be removed using a mixture of isopropyl alcohol and an abrasive cleanser like Comet. Replace units having scratches, abrasions, or other defects, with unblemished materials.

**DIVISION 10 - SPECIALTIES (Not Used)**

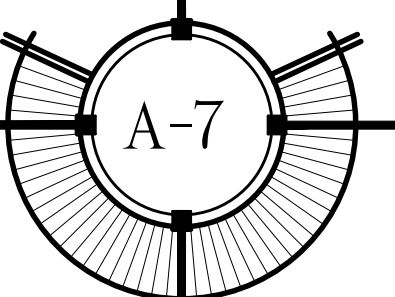
**DIVISION 11 - EQUIPMENT**

11400 - Contractor to coordinate with owner and or equipment supplier prior to bidding to determine in writing what will be supplied by owner, equipment supplier, or contractor, and to determine what will be coordinated or installed by contractor.

**DIVISION 12, 13 & 14 - NOT USED**

**DIVISION 15 - MECHANICAL (Not Used)**

**DIVISION 16 - ELECTRICAL (See Electrical)**



SEAL

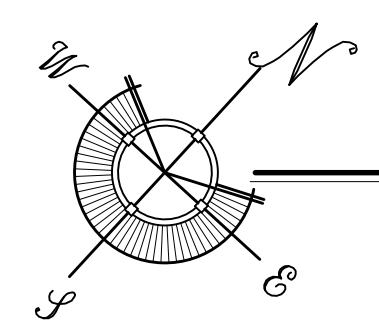
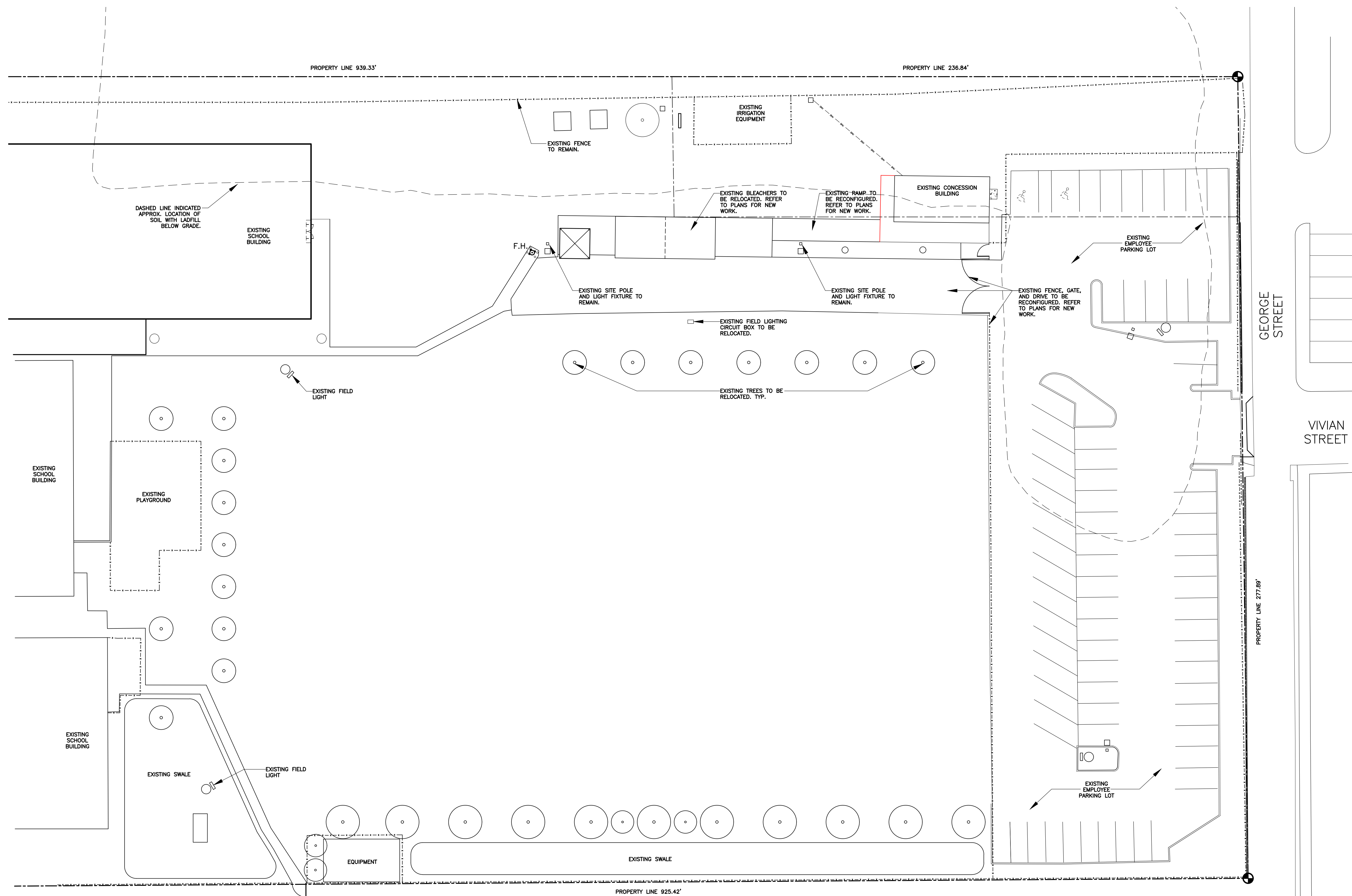
THESE DRAWINGS MAY  
NOT BE REPRODUCED  
WITHOUT WRITTEN  
AUTHORIZATION BY  
WILLIAM P. HORN

DATE  
03-27-2017 BID SET

REVISIONS

DRAWN BY  
EVK

PROJECT  
NUMBER  
1618

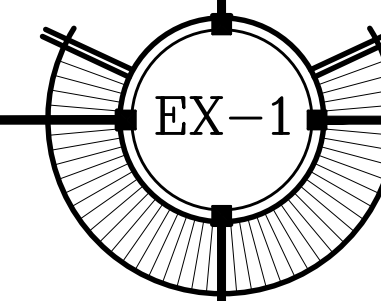


EXISTING SITE PLAN

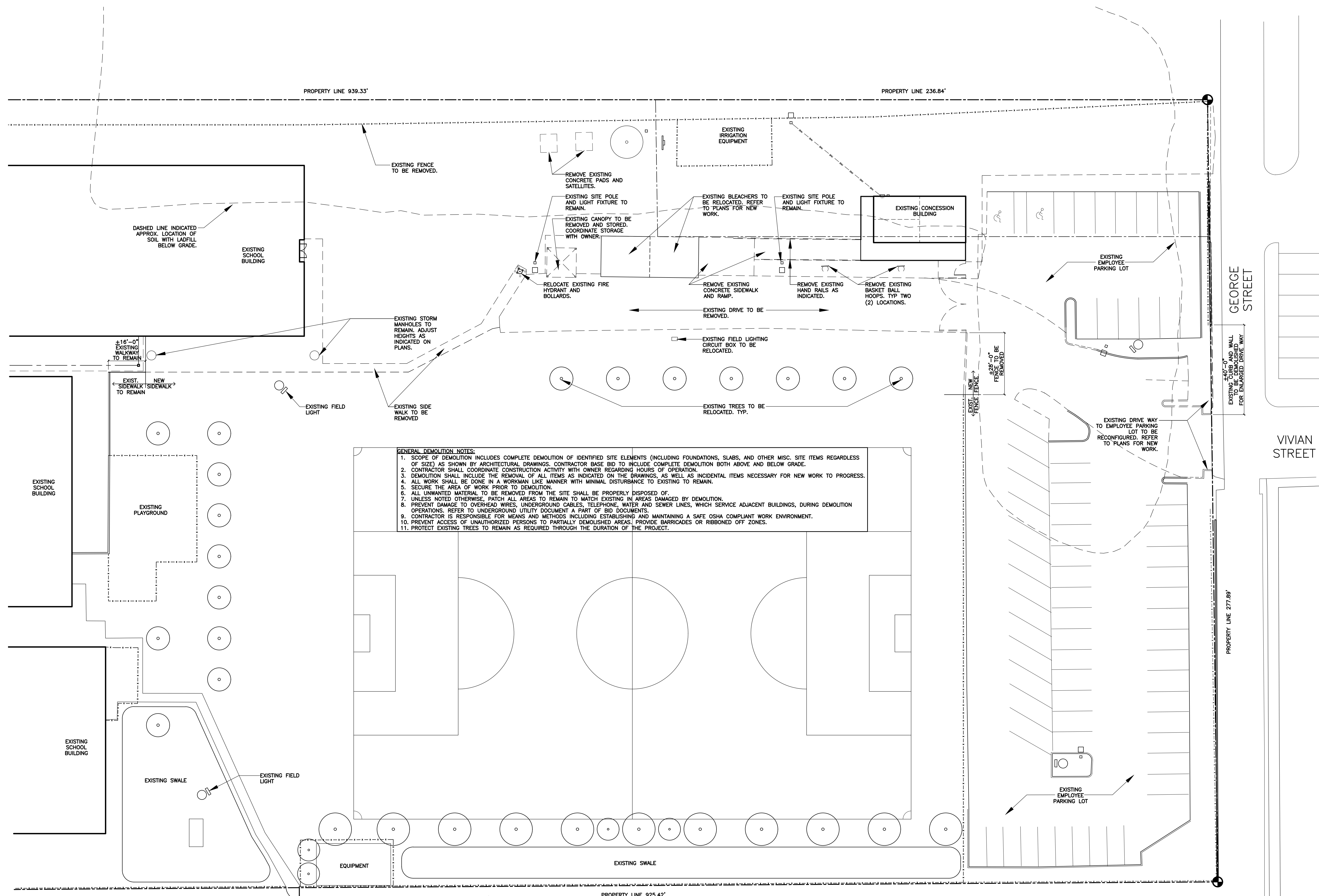
ALL SITE INFORMATION OBTAINED FROM SURVEY  
BY REECE & ASSOCIATES ON 11-28-2016.

SCALE: 1"=20'-0"

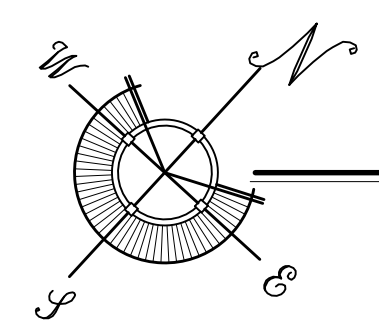
NEW BUS DROP OFF / PICK UP  
HORACE O' BRYANT MIDDLE SCHOOL  
1105 LEON STREET  
KEY WEST, FLORIDA







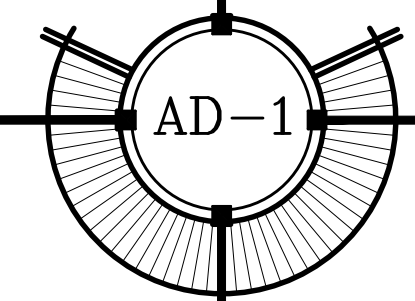
- GENERAL DEMOLITION NOTES:**
- SCOPE OF DEMOLITION INCLUDES COMPLETE DEMOLITION OF IDENTIFIED SITE ELEMENTS (INCLUDING FOUNDATIONS, SLABS, AND OTHER MISC. SITE ITEMS REGARDLESS OF SIZE) AS SHOWN BY ARCHITECTURAL DRAWINGS. CONTRACTOR BASE BID TO INCLUDE COMPLETE DEMOLITION BOTH ABOVE AND BELOW GRADE.
  - CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITY WITH OWNER REGARDING HOURS OF OPERATION.
  - DEMOLITION SHALL INCLUDE THE REMOVAL OF ALL ITEMS AS INDICATED ON THE DRAWINGS, AS WELL AS INCIDENTAL ITEMS NECESSARY FOR NEW WORK TO PROGRESS.
  - ALL WORK SHALL BE DONE IN A WORKMAN LIKE MANNER WITH MINIMAL DISTURBANCE TO EXISTING TO REMAIN.
  - SECURE THE AREA OF WORK PRIOR TO DEMOLITION.
  - ALL UNWANTED MATERIAL TO BE REMOVED FROM THE SITE SHALL BE PROPERLY DISPOSED OF.
  - UNLESS NOTED OTHERWISE, PATCH ALL AREAS TO REMAIN TO MATCH EXISTING IN AREAS DAMAGED BY DEMOLITION.
  - PREVENT DAMAGE TO OVERHEAD WIRES, UNDERGROUND CABLES, TELEPHONE, WATER AND SEWER LINES, WHICH SERVICE ADJACENT BUILDINGS, DURING DEMOLITION OPERATIONS. REFER TO UNDERGROUND UTILITY DOCUMENT A PART OF BID DOCUMENTS.
  - CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS INCLUDING ESTABLISHING AND MAINTAINING A SAFE OSHA COMPLIANT WORK ENVIRONMENT.
  - PREVENT ACCESS OF UNAUTHORIZED PERSONS TO PARTIALLY DEMOLISHED AREAS; PROVIDE BARRICADES OR RIBBONED OFF ZONES.
  - PROTECT EXISTING TREES TO REMAIN AS REQUIRED THROUGH THE DURATION OF THE PROJECT.



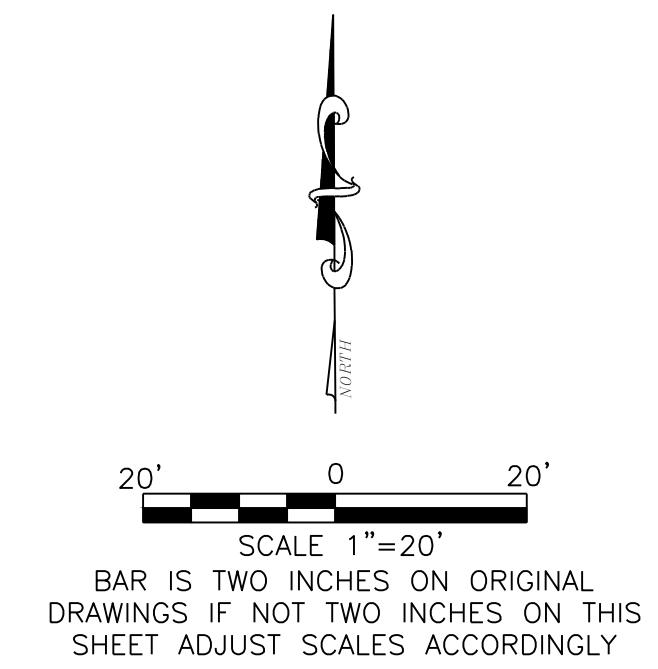
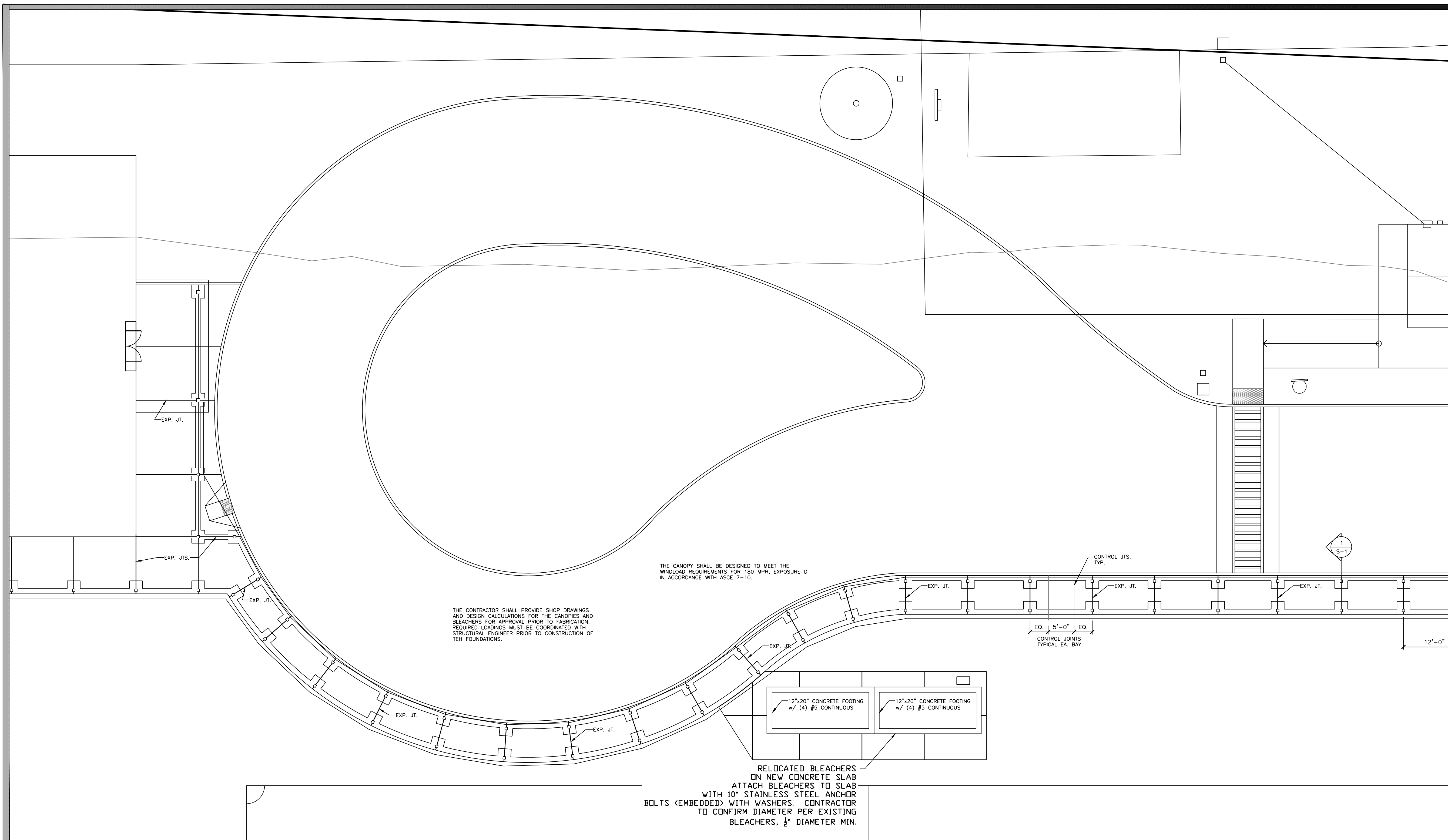
**EXISTING SITE PLAN**

ALL SITE INFORMATION OBTAINED FROM SURVEY  
BY REECE & ASSOCIATES ON 11-28-2016. SCALE: 1"=20'-0"

**NEW BUS DROP OFF / PICK UP  
HORACE O' BRYANT MIDDLE SCHOOL**  
1105 LEON STREET  
KEY WEST, FLORIDA







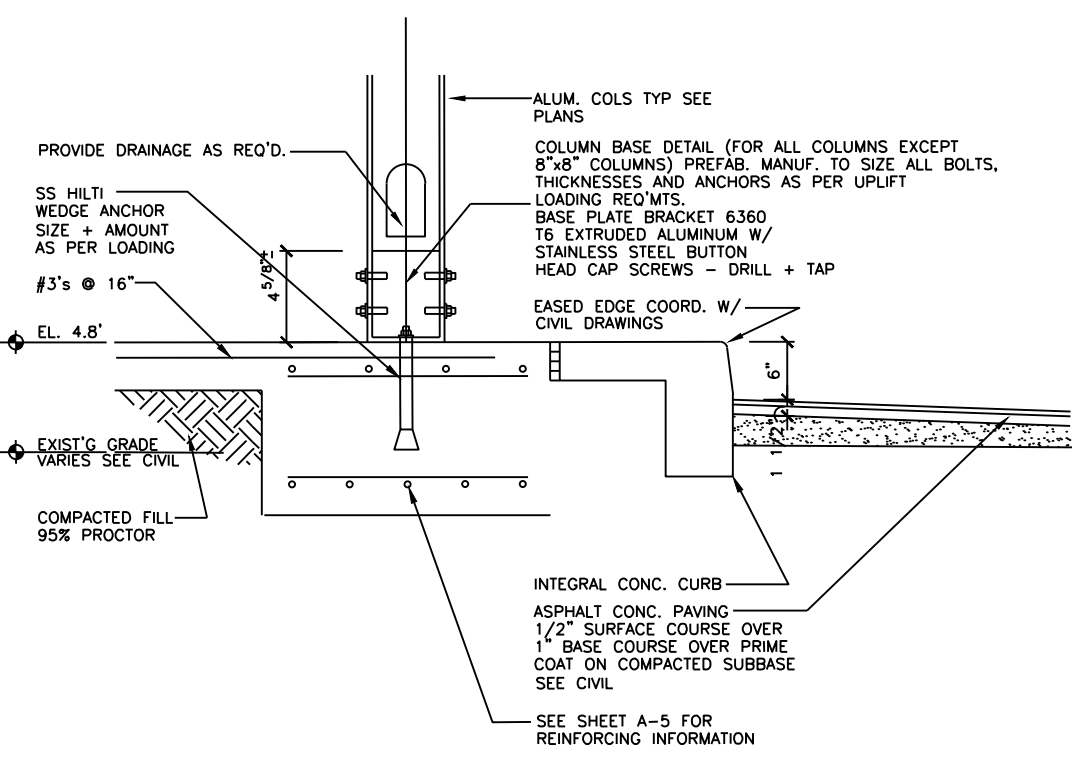
THE CANOPY SHALL BE DESIGNED TO MEET THE WINDLOAD REQUIREMENTS FOR 180 MPH, EXPOSURE D IN ACCORDANCE WITH ASCE 7-10.

THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND DESIGN CALCULATIONS FOR THE CANOPIES AND BLEACHERS FOR APPROVAL PRIOR TO FABRICATION. REQUIRED LOADINGS MUST BE COORDINATED WITH STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION OF THE FOUNDATIONS.

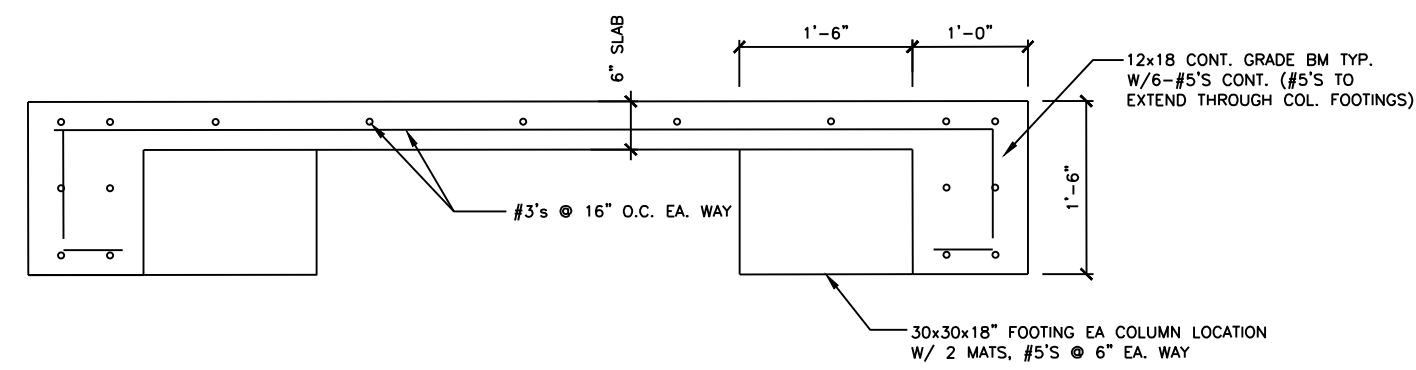
RELOCATED BLEACHERS ON NEW CONCRETE SLAB ATTACH BLEACHERS TO SLAB WITH 10\"/>

**FOUNDATION & CONCRETE NOTES**

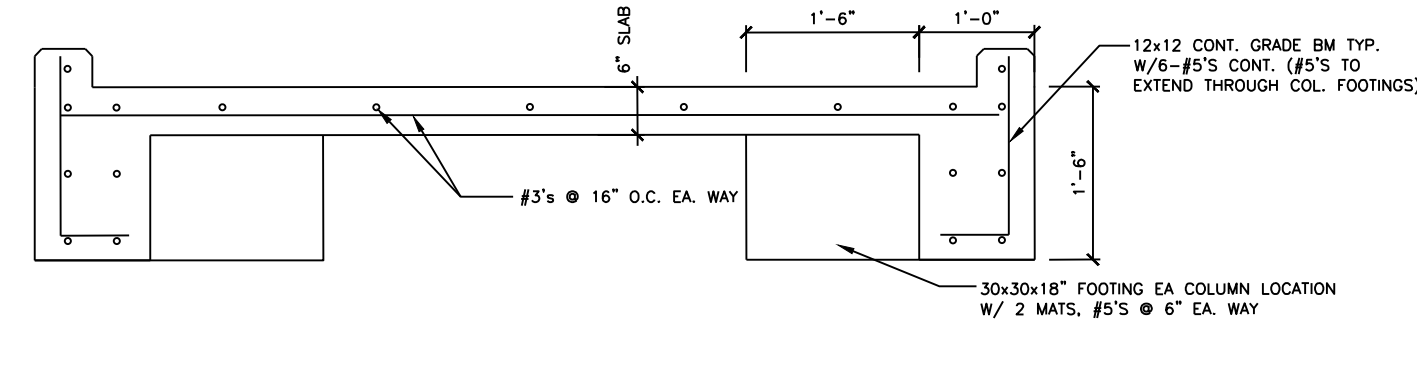
1. ALL FOOTINGS ARE TO BE PLACED ON FIRM, UNDISTURBED, NATURAL ROCK UNLESS OTHERWISE NOTED.
2. CENTER ALL FOOTINGS UNDER WALLS, COLUMNS OR GRID LINES UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL FURNISH FIELD DENSITY TESTS ON COMPACTED FILL UNDER FOOTINGS AND SLABS PRIOR TO PLACING CONCRETE. A MINIMUM OF 3 REPRESENTATIVE TESTS SHALL BE TAKEN FOR EACH FOOTING AND SLAB POUR.
4. ALL CAST-IN-PLACE CONCRETE SHALL BE MADE WITH TYPE II PORTLAND CEMENT, STONE AGGREGATE AND SHALL DEVELOP AT LEAST 4000 PSI COMPRESSIVE STRENGTH IN 28 DAYS. (UNLESS OTHERWISE NOTED.)
5. SLABS, TOPPING, FOOTINGS, BEAMS AND WALLS SHALL NOT HAVE JOINTS IN THE HORIZONTAL PLANE. ANY STOP IN CONCRETE WORK MUST BE MADE AT THE CENTER OF SPAN WITH VERTICAL BULKHEADS AND SHEAR KEYS UNLESS OTHERWISE NOTED. ALL CONSTRUCTION JOINTS SHALL BE AS DETAILED OR OTHERWISE APPROVED BY THE ENGINEER.
6. ALL CONCRETE WORK AND REINFORCING DETAILS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 318. EXPOSED EDGES OF CONCRETE SHALL HAVE 1/2\"/>
- 7. CONCRETE FORMS SHALL BE WETTED IMMEDIATELY PRIOR TO PLACING CONCRETE.
- 8. MIXING, PLACING AND CURING OF ALL CONCRETE MUST BE IN ACCORDANCE WITH ACI 305R. HOT WEATHER CONCRETING: NEW CONCRETE EXPOSED TO DIRECT SUNLIGHT SHALL BE SPRAYED OR MOPPED WITH A CURING COMPOUND TO SEAL IN MOISTURE AFTER THE FINISH HAS SET, OR THE CONCRETE COVERED AND SPRAYED.
- 9. NO PIPE, CONDUIT OR ACCESSORY SHALL BE PLACED IN STRUCTURAL SLABS, COLUMNS OR BEAMS UNLESS SPECIFICALLY SHOWN ON STRUCTURAL DRAWINGS.
- 10. ALL REINFORCING SHALL BE HIGH STRENGTH DEFORMED BARS CONFORMING TO ASTM A-615, GRADE 60.
- 11. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND SHALL BE LAPPED ONE FULL MESH AND AT SIDE AND END SPLICES AND WIRED TOGETHER.
- 12. REINFORCEMENT COVERAGE SHALL BE 2\"/>
- 13. LAP SPLICES SHALL BE A MINIMUM OF 48 BAR DIAMETERS. MAKE ALL BARS CONTINUOUS AROUND CORNERS.
- 14. PROVIDE ALL ACCESSORIES NECESSARY TO SECURE REINFORCING IN PROPER POSITION AS INDICATED ON THE DRAWINGS AND IN ACCORDANCE WITH ACI 318. ALL ACCESSORIES TO BE GALVANIZED.
- 15. MANUFACTURED STRAPS AND ANCHORS SHALL BE GALVANIZED AND SHALL BE FASTENED PER THE MANUFACTURER RECOMMENDATIONS.



**FOOTING SECTION - TYPICAL**  
SCALE: 1" = 1'-0"



**WALKWAY SECTION - TYPICAL**  
SCALE: 1" = 1'-0"



**WALKWAY SECTION - WITH EDGE PROTECTION**  
SCALE: 1" = 1'-0"

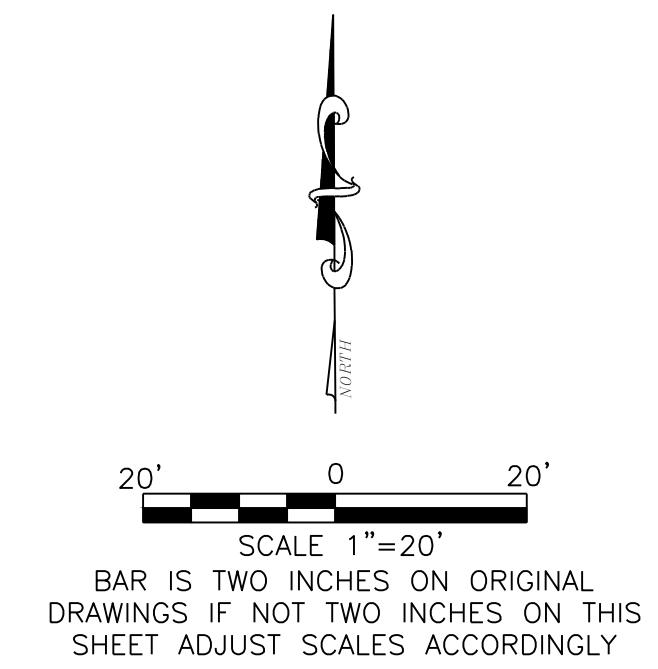
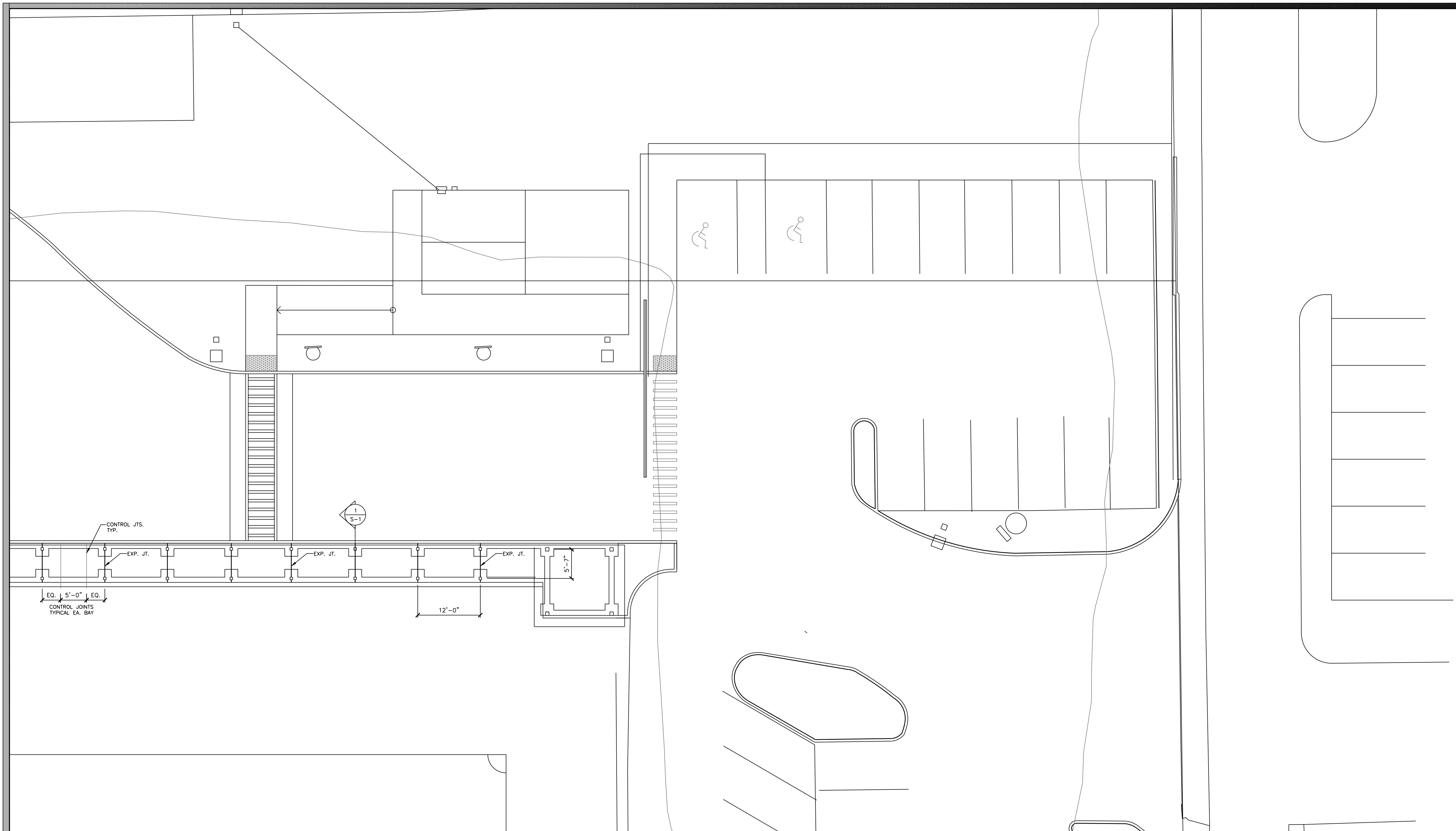
NOTE: SEE ARCHITECTURAL SITE PLAN FOR LOCATIONS OF WALKWAY WITH EDGE PROTECTION

ORIGINAL: \_\_\_\_\_

REVISIONS:

1	2/27/17 RSP/SET
2	
3	
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5	
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**FOUNDATION & CONCRETE NOTES**

1. ALL FOOTINGS ARE TO BE PLACED ON FIRM, UNDISTURBED, NATURAL ROCK UNLESS OTHERWISE NOTED.
2. CENTER ALL FOOTINGS UNDER WALLS, COLUMNS OR GRID LINES UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL FURNISH FIELD DENSITY TESTS ON COMPACTED FILL UNDER FOOTINGS AND SLABS PRIOR TO PLACING CONCRETE. A MINIMUM OF 3 REPRESENTATIVE TESTS SHALL BE TAKEN FOR EACH FOOTING AND SLAB POUR.
4. ALL CAST-IN-PLACE CONCRETE SHALL BE MADE WITH TYPE II PORTLAND CEMENT, STONE AGGREGATE AND SHALL DEVELOP AT LEAST 4000 PSI COMPRESSIVE STRENGTH IN 28 DAYS. (UNLESS OTHERWISE NOTED.)
5. SLABS, TOPPING, FOOTINGS, BEAMS AND WALLS SHALL NOT HAVE JOINTS IN THE HORIZONTAL PLANE. ANY STOP IN CONCRETE WORK MUST BE MADE AT THE CENTER OF SPAN WITH VERTICAL BULKHEADS AND SHEAR KEYS UNLESS OTHERWISE NOTED. ALL CONSTRUCTION JOINTS SHALL BE AS DETAILED OR OTHERWISE APPROVED BY THE ENGINEER.
6. ALL CONCRETE WORK AND REINFORCING DETAILS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 318. EXPOSED EDGES OF CONCRETE SHALL HAVE 1/2" CHAMFER. USE STANDARD HOOKS ON DOWELS UNLESS OTHERWISE NOTED.
7. CONCRETE FORMS SHALL BE WETTED IMMEDIATELY PRIOR TO PLACING CONCRETE.
8. MIXING, PLACING AND CURING OF ALL CONCRETE MUST BE IN ACCORDANCE WITH ACI 305R. HOT WEATHER CONCRETING: NEW CONCRETE EXPOSED TO DIRECT SUNLIGHT SHALL BE SPRAYED OR MOPPED WITH A CURING COMPOUND TO SEAL IN MOISTURE AFTER THE FINISH HAS SET, OR THE CONCRETE COVERED AND SPRAYED.
9. NO PIPE, CONDUIT OR ACCESSORY SHALL BE PLACED IN STRUCTURAL SLABS, COLUMNS OR BEAMS UNLESS SPECIFICALLY SHOWN ON STRUCTURAL DRAWINGS.
10. ALL REINFORCING SHALL BE HIGH STRENGTH DEFORMED BARS CONFORMING TO ASTM A-615, GRADE 60.
11. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND SHALL BE LAPPED ONE FULL MESH AND AT SIDE AND END SPLICES AND WIRED TOGETHER.
12. REINFORCEMENT COVERAGE SHALL BE 2" MINIMUM WHEN FORMS ARE USED AND 3" MINIMUM WHEN POURED AGAINST THE EARTH, UNLESS OTHERWISE NOTED.
13. LAP SPLICES SHALL BE A MINIMUM OF 48 BAR DIAMETERS. MAKE ALL BARS CONTINUOUS AROUND CORNERS.
14. PROVIDE ALL ACCESSORIES NECESSARY TO SECURE REINFORCING IN PROPER POSITION AS INDICATED ON THE DRAWINGS AND IN ACCORDANCE WITH ACI 318. ALL ACCESSORIES TO BE GALVANIZED.
15. MANUFACTURED STRAPS AND ANCHORS SHALL BE GALVANIZED AND SHALL BE FASTENED PER THE MANUFACTURER RECOMMENDATIONS.

CIVIL ENGINEERING • REGULATORY PERMITTING • CONSTRUCTION MANAGEMENT

**PEREZ ENGINEERING & DEVELOPMENT, INC.**

KEY WEST OFFICE  
1010 EAST KENNEDY DRIVE, SUITE 201  
KEY WEST, FL 33040  
TEL: (305) 293-9440 FAX: (305) 296-0243

CERTIFICATE OF AUTHORIZATION No. 8879

PAUL R. SEMMES, P.E.  
Florida P.E. NO. 44137  
March 27, 2017

ORIGINAL: \_\_\_\_\_

REVISIONS:

1	2/27/17 PDP 9ET
2	
3	
4	
5	
6	

NEW BUS DROPOFF/PICKUP

STRUCTURAL PLAN AND DETAILS

HORACE O'BRYANT SCHOOL

1105 LEON STREET

KEY WEST, FL 33040

JOB NO.	161066
DRAWN	PRS
DESIGNED	PRS
CHECKED	PRS
QC	
SHEET	S-2



SYMBOL LEGEND			
CCTV ①	CCTV SYSTEM JUNCTION BOX TO MATCH EXISTING SCHOOL STANDARDS	⊖	POLE WITH SINGLE LUMINAIRE
PA ①	PA SYSTEM JUNCTION BOX TO MATCH EXISTING SCHOOL STANDARDS	⊖	POLE WITH DUAL LUMINAIRE
CCTV [EET]	EXISTING CCTV SYSTEM HEAD END EQUIPMENT	☐	CONTACTOR
PA [EET]	EXISTING PA SYSTEM HEAD END EQUIPMENT	HH	HAND HOLE
[EET]	ELECTRICAL PANEL	[EET]	DIGITAL TIME CLOCK: 120 VOLT, DOUBLE POLE/SINGLE THROW WITH ASTRONOMICAL TIME CLOCK
[EET]	ELECTRICAL METER	WP	WEATHERPROOF/WEATHER RESISTANT
[EET]	LIGHTING CONTROL ELECTRONIC TIME CLOCK WITH ASTRONOMICAL DIAL	UG	UNDERGROUND
(E)	EXISTING ELECTRICAL EQUIPMENT OR DEVICE	V	VOLTAGE
(IRE)	RELOCATED EXISTING ELECTRICAL EQUIPMENT OR DEVICE	PH	PHASE
NO SYMBOL	NEW	W	WIRE
		MCB	MAIN CIRCUIT BREAKER
		MLO	MAIN LUGS ONLY
		GND	GROUND
		CKT	CIRCUIT

NOTE: ALL SYMBOLS MAY NOT BE USED FOR THIS PROJECT

CONTRACTOR GENERAL CONDITIONS NOTES	
1.	RFIS: CONTRACTOR SHALL SUBMIT RFIS WITH HIS PROPOSED SOLUTION IN A TIMELY MANNER. CONTRACTOR RECOGNIZES THE CONSULTANT SHALL REQUIRE UP TO 5 WORKING DAYS TO RESPOND.
2.	SUBMITTALS AND PRODUCT DATA: CONTRACTOR SHALL PREPARE A SUBMITTAL SCHEDULE FOR APPROVAL BY THE A/E. CONTRACTOR RECOGNIZES THE CONSULTANT SHALL REQUIRE UP TO 10 WORKING DAYS TO REVIEW SUBMISSIONS. ALL SUBMITTALS, PRODUCT DATA, SHALL BE CLEARLY STAMPED AND INDICATED APPROVED BY THE CONTRACTOR PRIOR TO SUBMISSION TO THE CONSULTANT.
3.	SHOP DRAWINGS: CONTRACTOR SHALL PREPARE A SHOP DRAWING SCHEDULE FOR APPROVAL BY THE A/E. CONTRACTOR RECOGNIZES THE CONSULTANT SHALL REQUIRE UP TO 10 WORKING DAYS TO REVIEW SHOP DRAWINGS. ALL SHOP DRAWINGS, SHALL BE CLEARLY STAMPED AND INDICATED APPROVED BY THE CONTRACTOR PRIOR TO SUBMISSION TO THE CONSULTANT.
4.	LAYOUT AND COORDINATION DRAWINGS: CONTRACTOR SHALL PREPARE SCALED COMPREHENSIVE COORDINATED LAYOUT DRAWINGS, PROVIDE SECTIONS, GENERAL ARRANGEMENTS, ELEVATIONS INCLUDING ALL DISCIPLINES FOR HIS PROPOSED LAYOUT AND ROUTING PRIOR TO FABRICATION. SUBMIT TO SCHOOL AND A/E FOR REVIEW AND GENERAL CONFORMANCE. PROVIDE DRAWINGS THAT DEMONSTRATE VIA COORDINATED ELEMENTS AND SYSTEMS WITH STRUCTURE THAT CLEARLY INDICATE PROPOSED SYSTEMS WILL FIT, FUNCTION AS INTENDED, BE FREE OF INTERFERENCES AND CONFORM TO REQUIRED CODE AND MANUFACTURER WORKING AND MAINTENANCE CLEARANCES.
5.	DEVIATIONS FROM BASIS FOR DESIGN SYSTEMS SHALL BE CLEARLY IDENTIFIED ON ALL SUBMISSIONS.
6.	SUBSTITUTIONS: A. CONTRACTOR SHALL PREPARE REQUESTS WITH COMPLETE COORDINATION INFORMATION, INCLUDE ALL CHANGES REQUIRED IN OTHER ELEMENTS OF THE WORK TO ACCOMMODATE THE SUBSTITUTION INCLUDING WORK PERFORMED BY THE SCHOOL AND THE SEPARATE CONTRACTORS. B. PROVIDE COMPLETE SUPPORTING DATA QUALIFYING THE SUBSTITUTION COMPARED TO THE BASIS OF DESIGN SYSTEM. PROVIDE A DETAILED LIST OF ANY VARIANCES, PHYSICAL OR SPATIAL LAYOUTS, ELEVATIONS, ETC. TO THE BASIS OF DESIGN. C. PROVIDE A STATEMENT INDICATING THE EFFECT THE SUBSTITUTION WILL HAVE ON THE WORK SCHEDULE IN COMPARISON TO THE SCHEDULE WITHOUT APPROVAL OF THE PROPOSED SUBSTITUTION, INCLUDE INFORMATION REGARDING THE EFFECT OF THE PROPOSED SUBSTITUTION ON THE CONTRACT TIME. D. PROVIDE CERTIFICATION BY THE CONTRACTOR TO THE EFFECT THAT, IN THE CONTRACTOR'S OPINION, AFTER THOROUGH EVALUATION, THE PROPOSED SUBSTITUTION WILL RESULT IN WORK THAT IN EVERY SIGNIFICANT RESPECT IS EQUAL TO OR BETTER THAN THE WORK REQUIRED BY THE CONTRACTOR DOCUMENTS AND THAT IT WILL PERFORM ADEQUATELY IN THE APPLICATION INDICATED.
E.	CONSULTANT'S EXPENSES THAT ARE INCURRED DUE TO REVISIONS OR SUBSTITUTIONS REQUESTED BY THE CONTRACTOR OR APPROVED BY THE SCHOOL SHALL BE COMPENSATED TO THE CONSULTANT BY THE CONTRACTOR.
7.	AS-BUILT DRAWINGS: THE CONTRACTOR SHALL MAINTAIN AND PREPARE A COMPLETE AND ACCURATE SET OF AS-BUILTS DURING THE PROJECT AND ISSUE TO THE A/E AND SCHOOL AT PROJECT CLOSEOUT. DURING THE COURSE OF THE PROJECT, THE CONTRACTOR SHALL ISSUE SKETCHES OR SCALED DRAWINGS FOR FIELD CHANGES THAT ARE PROPOSED OR MADE WHICH VARY FROM THE BASIS OF DESIGN. CONSULTANT EXPENSES THAT ARE INCURRED DUE TO SERVICES OR REVISIONS REQUIRED BY BUILDING DEPARTMENT, OWNER, CONTRACTOR, AND MANUFACTURER SHALL BE COMPENSABLE TO THE CONSULTANT BY THE CONTRACTOR.
8.	INSTALLATION, TESTING AND START UP, COMMISSIONING AND PERFORMANCE TROUBLESHOOTING OF SYSTEMS- CONTRACTOR RECOGNIZES HE IS SOLELY RESPONSIBLE FOR PERFORMANCE AND COMPLETION OF THESE SERVICES AS PART OF THE PROJECT REQUIREMENTS. DURING THE COURSE OF THE PROJECT, THE CONTRACTOR SHALL DOCUMENT THE SERVICES COMPLETED TO THE SCHOOL AND A/E. CONSULTANT EXPENSES THAT ARE INCURRED DUE TO SUPPORTING SERVICES OR REVISIONS REQUIRED BY BUILDING DEPARTMENT, SCHOOL, CONTRACTOR, AND MANUFACTURER SHALL BE COMPENSABLE TO THE CONSULTANT BY THE CONTRACTOR.

GENERAL NOTES	
1.	DO NOT SCALE THE ELECTRICAL DRAWING. REFER TO THE ARCHITECTURAL PLAN AND ELEVATIONS FOR EXACT LOCATION OF ALL EQUIPMENT AND CONFIRM WITH SCHOOL'S REPRESENTATIVES. CONTRACTOR SHALL REFER TO THE ENTIRE SET OF CONTRACT DOCUMENTS FOR PROJECT COORDINATION.
2.	ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE EDITIONS CURRENTLY ADOPTED BY THE LOCAL AUTHORITIES HAVING JURISDICTION OF THE FOLLOWING: THE NATIONAL ELECTRICAL CODE (NFPA 70), NFPA 72, NFPA 75, THE FIRE PREVENTION CODE INCLUDING NFPA 1 & NFPA 101, NFPA 110, AND THE FBC, AND THE FPPC, AND SCHOOL BOARD CONSTRUCTION CRITERIA IF APPLICABLE.
3.	UNLESS OTHERWISE NOTED, ALL CONDUCTORS SHALL BE COPPER, WITH "THWN" INSULATION FOR SIZE #10 AND SMALLER. CONDUCTORS LARGER THAN #10 SHALL HAVE "THWN" INSULATION. ALL CONDUCTORS IN WET LOCATIONS MUST HAVE "THWN" INSULATION. ALL CONDUCTORS #10 AND SMALLER MAY BE SOLID. ALL CONDUCTORS #8 AND LARGER SHALL BE STRANDED. ALL CONDUCTORS MUST COMPLY WITH ARTICLE 310 OF THE N.E.C.
4.	OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
5.	DISCONNECT SWITCHES SHALL BE HP, RATED, HEAVY DUTY, QUICK MAKE, QUICK BREAK, WITH ENCLOSURES AS REQUIRED BY EXPOSURE.
6.	THESE PLANS DO NOT SHOW EVERY MINOR DETAIL OF CONSTRUCTION, THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND MEET ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
7.	THE ELECTRICAL SYSTEM SHALL BE COMPLETELY AND EFFECTIVELY GROUNDED AS REQUIRED IN ARTICLE 250, NATIONAL ELECTRICAL CODE. THE NEW AND EXISTING GROUNDING SYSTEM SHALL BE TESTED AND SHALL BE PROVIDED TO MEASURE A MAXIMUM OF 5 OHMS. PROVIDE A COPY OF THE TEST REPORT TO ENGINEER.
8.	ALL MATERIALS SHALL BE NEW AND SHALL BEAR U.L. LABELS WHERE APPLICABLE.
9.	ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANSHIP MANNER. THE COMPLETE SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTANCE BY ENGINEER/ARCHITECT MUST BE A CONDITION OF THE SUBCONTRACTOR.
10.	NOT USED.
11.	CIRCUITS SHOWN ON PLANS ARE TO DETERMINE LOAD DATA AND PANELBOARD SIZE. THE CONTRACTOR SHALL PROVIDE CIRCUITS TO SUIT JOB CONDITIONS, BALANCE LOADS ON EACH PHASE.
12.	SEE NOTES ON PLANS FOR OTHER REQUIREMENTS.
13.	FURNISH AND INSTALL LIGHTING FIXTURES AND LIGHT SOURCE AS CALLED FOR ON PLANS, OR AS SELECTED BY SCHOOL.
14.	ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROCESS OF CONSTRUCTION.
15.	CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY PHASE OF THE INSTALLATION WHICH MAY BE DAMAGED.
16.	ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY OF PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
17.	CHECK ALL EQUIPMENT FOR PROPER VOLTAGE, PHASE, AND CURRENT BEFORE CONNECTION TO CIRCUITS AND START UP.
18.	ELECTRICAL CONTRACTOR SHALL CHECK AND VERIFY EQUIPMENT FURNISHED AGAINST THOSE SPECIFIED OR INTENDED AND REVISE BRANCH CIRCUITS AS MAY BE REQUIRED WITH PRIOR APPROVAL OF ENGINEER/ARCHITECT.
19.	ALL SYSTEMS AND ROUGH-IN SHALL BE CONCEALED IN FINISHED AREAS. COORDINATE WITH ARCHITECT.
20.	THE ELECTRICAL PORTION OF THE CONTRACT DOCUMENTS ARE COORDINATED WITH THE BASIS OF DESIGN EQUIPMENT SPECIFIED BY DIVISION 16 AND OTHER DIVISIONS. WHERE THE CONTRACTOR ELECTS TO SUBSTITUTE A PRODUCT IN LIEU OF PROVIDING THE DESIGN BASIS, AND SAID SUBSTITUTION IS ACCEPTED BY THE A/E AND OWNER, THE CONTRACTOR SHALL MAKE ALL CORRECTIONS TO THE ELECTRICAL SYSTEM NECESSARY IN ORDER TO ENSURE A COMPLETE AND OPERATIONAL INSTALLATION OF THE EQUIPMENT AT NO ADDITIONAL COSTS. WHERE THE CONTRACTOR'S DECISION TO SUBSTITUTE PRODUCTS OR MODIFY DESIGN REQUIRING A/E SERVICES, THE A/E RESERVES THE RIGHT TO REQUEST COMPENSATION FROM THE CONTRACTOR FOR SAID SERVICES.

FLORIDA BUILDING CODE 2014 CONFORMANCE	
1.	CONTRACTOR TO PROVIDE ALL LABOR AND MATERIAL TO CONFORM TO FBC 2014. ENERGY COMPLIANCE, RELATED SECTIONS, AND STANDARDS.
2.	SCHOOL SHALL PROVIDE SERVICES OF AN INDEPENDENT COMMISSIONING AGENT(CXA) TO PREPARE FUNCTIONAL TEST PROCEDURES (DOCUMENT SYSTEMS PERFORMANCE, WITNESS CONTRACTOR TESTING), AS REQUIRED BY FBC FOR LIGHTING SYSTEMS.
3.	CONTRACTOR TO PROVIDE COMPLETE CERTIFICATIONS AND CHECKLISTS AS REQUIRED BY FBC FOR HIS WORK RESPONSIBILITIES.

GENERAL DEMOLITION NOTES	
1.	CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN RELOCATING WIRING DEVICES, EQUIPMENT AND LIGHTING FIXTURES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE THAT OTHER WIRING DEVICES, EQUIPMENT, AND LIGHTING FIXTURES THAT MAY BE CONNECTED ON THE SAME CIRCUIT REMAIN OPERATIONAL AND ACTIVE.
2.	INFORMATION SHOWN ON THESE DOCUMENTS ARE DIAGRAMMATIC IN NATURE. CONTRACTOR TO FIELD VERIFY ELECTRICAL CIRCUIT HOME RUNS TO ALL ELECTRICAL ITEMS SCHEDULED FOR DEMOLITION AND PERFORM THE WORK AS INTENDED AND DEPICTED ON THE DRAWINGS.
3.	UPDATE ALL ELECTRICAL PANEL BOARD DIRECTORIES THAT ARE AFFECTED BY THE DEMOLITION AND/OR RENOVATIONS. DIRECTORIES SHALL BE TYPED.
4.	STORE ITEMS INDICATED TO BE RETURNED TO THE SCHOOL IN A DRY, CLEAN, AND PROTECTED AREA. NOTIFY SCHOOL WHEN ITEMS ARE READY TO BE REMOVED.
5.	COORDINATE ANY ALTERATION AND CHANGES TO THE ELECTRICAL SERVICE WITH THE LOCAL UTILITY COMPANY.
6.	PRE SCHEDULE ALL POWER INTERRUPTIONS WITH OWNER. GIVE SCHOOL 48 HOURS NOTICE PRIOR TO DISCONNECTING POWER TO ANY PORTION OF THE BUILDING AND MAKE ARRANGEMENTS TO MAINTAIN POWER TO ALL CRITICAL EQUIPMENT AS NEEDED AND REQUESTED BY SCHOOL.
7.	CONTRACTOR IS RESPONSIBLE OF BECOMING FULLY INFORMED AS TO EXISTING CONDITIONS AT THE SITE. NEITHER THE SCHOOL NOR THE A/E MAKES ANY REPRESENTATION WARRANTY AS TO SITE CONDITIONS.
8.	CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE NATURE AND EXTENT OF THE WORK TO BE PERFORMED AND LOCAL CONDITIONS THAT MAY AFFECT THE WORK.
9.	DUE TO REMOVAL OR CORRECTION TO ANY WALLS OR OTHER CONSTRUCTION NECESSITATING CAPPING OF EXISTING ELECTRICAL WIRING DEVICES OR ANY OTHER ELECTRICAL EQUIPMENT INCLUDING RECONNECT OF SUCH EXISTING ITEMS IS CONSIDERED TO BE PART OF THE WORK UNDER THIS CONTRACT. ALL EXISTING OUTLETS SHOWN TO REMAIN WILL REMAIN ACTIVE. THE REWIRING SHALL BE INCLUDED UNDER THIS CONTRACT WITHOUT ADDITIONAL COST TO SCHOOL.
10.	ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING CODES: NATIONAL ELECTRICAL CODE (NEC) NATIONAL FIRE PROTECTION AGENCY (NFPA) FLORIDA BUILDING CODE
11.	WHERE CONDUIT IS INACCESSIBLE, REMOVE CONDUCTORS AND CUT BACK CONDUIT FLUSH WITH SLAB OR WALL. PATCH OPENING TO MATCH EXISTING FINISH. WHERE EXISTING WIRING EXTENDS OUTSIDE OF THE AREA BY NATURE OF THE ORIGINAL INSTALLATION, CONTRACTOR SHALL MODIFY EXISTING WIRING AS REQUIRED TO MAINTAIN CONTINUITY OF EXISTING CIRCUITRY SUCH THAT NO EQUIPMENT TO REMAIN IS LEFT WITHOUT SERVICE.
12.	THE CONTRACTOR IS TO GIVE THE SCHOOL AN OPPORTUNITY TO ACCEPT ANY ELECTRICAL ITEMS THAT WERE REMOVED FOR THEIR USE. SALVAGED MATERIALS, AND EQUIPMENT THE SCHOOL DOES NOT WISH TO KEEP SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE DISPOSED OF BY THE CONTRACTOR, WITHOUT ADDITIONAL COST TO THE SCHOOL.
13.	CONTRACTOR SHALL PROVIDE TEMPORARY POWER AND LIGHTING WHERE REQUIRED DURING DEMOLITION AND CONSTRUCTION SCOPE OF WORK.
14.	THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE TAKEN FROM ORIGINAL DRAWINGS PROVIDED BY THE SCHOOL AND FIELD INVESTIGATION. THE ACTUAL CONDITIONS MAY VARY. ALL EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO BID. THE CONDITIONS SHOWN ARE INTENDED TO SHOW THE LOCATIONS OF THE EXISTING EQUIPMENT, AND IN NO WAY RELIEVES THE CONTRACTOR FROM PROVIDING ANY AND ALL COORDINATION REQUIRED TO COMPLETE THE NEW WORK. FIELD CONDITIONS SHALL GOVERN.
15.	THE DEMOLITION PLAN IS NOT INCLUSIVE OF ALL ELECTRICAL DEVICES WITHIN THE PROJECT AREA. IT IS INTENDED TO PROVIDE THE CONTRACTOR WITH A GENERAL KNOWLEDGE OF THE EXISTING CONDITIONS WITHIN THE PROJECT AREA. ANY DISCREPANCIES OR CONDITIONS NOT SHOWN ON THIS PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED DEMOLITION WHETHER SHOWN ON THE PLANS OR NOT.
16.	ALL CONDUITS SERVING OTHER SPACES OR FLOORS, THAT RUN THROUGH THE PROJECT AREA SHALL REMAIN ACTIVE DURING CONSTRUCTION, SO AS NOT TO CAUSE ANY DISRUPTION TO THESE OTHER SPACES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE THAT ALL CONDUITS, NEW OR EXISTING WITHIN THE PROJECT AREA ARE PROPERLY SUPPORTED AND PROVIDED WITH BONDING BUSHINGS IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
17.	THE CONTRACTOR SHALL PHASE DEMOLITION WORK AS REQUIRED OR DIRECTED BY THE SCHOOL.
18.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR PATCHING ANY DAMAGE WHICH MAY OCCUR DURING DEMOLITION ACTIVITIES. REPAIRS TO BE DONE TO LOGICAL EDGES OF SURFACES AFFECTED, AND SHALL MATCH IMMEDIATE ADJACENT AREAS IN CONSTRUCTION, MATERIAL, FIRE RATING, FINISH AND COLOR.
19.	ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR AND SHALL BE COORDINATED WITH OTHER TRADES.

VOLTAGE DROP NOTE	
THE CONTRACTOR, AS PART OF HIS PRICING AND BIDDING, SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT AND TERMINATIONS, INCLUDING FPL AND UTILITY REQUIREMENTS AND APPROVALS FOR ALL CONDUCTORING AND TERMINATIONS, TO SATISFY THE PROJECT REQUIREMENTS. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND INCLUDE ALL HIS BRANCH CIRCUIT, FEEDER, AND SERVICE CONDUCTOR CONDUITING AND WIRING LENGTHS AND ROUTING BASED ON HIS PROPOSED INSTALLATION MEANS AND METHODS. WIRING LENGTHS, SHOWN AS THE BASIS OF DESIGN LENGTHS, ARE MERELY AN APPROXIMATION BY THE CONSULTANT. THE CONTRACTOR SHALL USE THOSE BASIS OF DESIGN CONDUCTOR LENGTHS AND WIRING SIZES AS THE MINIMUM, NOT LIMITED TO, REQUIREMENTS FOR THE PROJECT BIDDING. THE CONTRACTOR, PRIOR TO BIDDING, SHALL CONFIRM ALL HIS PROPOSED LENGTHS, MAKE ANY AND ALL ADJUSTMENTS AS MAY IMPACT THE ELECTRICAL SYSTEMS AND EQUIPMENT FOR CODE COMPLIANCE AND CONSTRUCTABILITY, AND DOCUMENT ALL PROPOSED CHANGES AND ADJUSTMENTS TO THE ARCHITECT AS PART OF HIS BID RESPONSE. THE CONTRACTOR SHALL SUBMIT COMPLETE SCALED PROPOSED ROUTINGS FOR SERVICES AND FEEDERS, QUANTITIES AND CONDUCTORING, SECTIONS THRU BUILDING FOR RACKING, DUCTBANK CROSS SECTIONS FOR CLEARANCES AND COORDINATED AS FREE OF ALL INTERFERENCES, ETC. CONTRACTOR SHALL SUBMIT ALL DOCUMENTATION TO THE ARCHITECT FOR REVIEW NO LATER THAN 3 WEEKS AFTER NOTICE TO PROCEED.	

LIGHTING CONTROLS – FBC 2014 NOTE	
LOCAL LIGHTING CONTROLS ARE INDICATED IN A DIAGRAMMATIC MANNER AND PER OUR INTERPRETATION AND UNDERSTANDING OF THE CURRENT FBC 2014, CONTRACTOR AND HIS MANUFACTURER SHALL PROVIDE A COMPLETE LIGHTING CONTROL SYSTEM THAT COMPLIES WITH THE REQUIREMENTS OF THE LOCAL AUTHORITIES AND THE CURRENT FBC. CONTRACTOR AND MANUFACTURER SHALL DESIGN AND INSTALL THE SYSTEMS, PREPARE A COMPLETE LIGHTING CONTROL SYSTEM DRAWING INCLUDING ANY ADJUSTED BRANCH CIRCUIT, SWITCHING LOCATIONS, CONTROL LOCATIONS, PRODUCT DATA AND SPECIFICATIONS, WIRING AND INTERCONNECTION WIRING DIAGRAMS, CONDUIT DIAGRAMS, CABLING DIAGRAMS, TESTING AND COMMISSIONING SERVICES, TRAINING SERVICES FOR OWNER, ARCHITECT AND ENGINEER REVIEW. PROVIDE AS BUILDS.	

ELECTRICAL SHEET INDEX	
SHEET#	DESCRIPTION
E-0	ELECTRICAL LEGEND, GENERAL NOTES, DEMOLITION NOTES, AND SHEET INDEX
E-1	ELECTRICAL SITE PLAN -A
E-2	ELECTRICAL SITE PLAN -B
E-3	ELECTRICAL SCHEDULES AND DETAILS
E-4	ELECTRICAL SPECIFICATIONS
PH-1	SITE PHOTOMETRICS

FBC NOTE	
1. CONTRACTOR SHALL COMPLY WITH FBC (C408.2.5.1). PROVIDE OWNER WITH A RECORD SET DRAWING OF COMPLETE INSTALLATION DRAWINGS.	
2. CONTRACTOR SHALL COMPLY WITH FBC (C408.2.5.2). PROVIDE OWNER WITH OPERATIONAL MANUALS AND MAINTENANCE MANUALS.	

FIRE RATING NOTE	
ALL DEVICES PENETRATING FIRE RATED WALLS SHALL BE PROVIDED WITH UL APPROVED FIRE RATED ASSEMBLIES. (EQUAL TO WALL FIRE RATING - SEE ARCHITECTURAL DRAWINGS)	

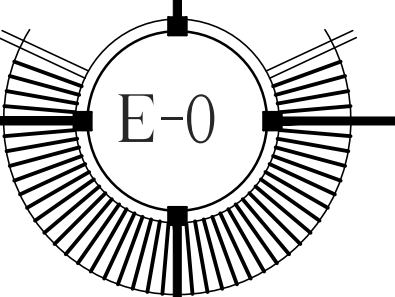
COORDINATION NOTES	
CONTRACTOR TO COORDINATE ALL FINAL LOCATIONS, ANY TYPES OF ALL DEVICES, AND EQUIPMENT WITH ARCHITECT PRIOR TO BID AND ROUGH-IN.	
CONTRACTOR TO COORDINATE VARIOUS TRADES TO AVOID ABOVE INSTALLATION CONFLICTS.	

LIGHTING NOTES	
1. ELECTRICAL CONTRACTOR TO VERIFY IF ANY LIGHTING FIXTURES REQUIRE STEP-DOWN TRANSFORMERS. QUANTITY AND LOCATION OF THE TRANSFORMERS TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION. CONSULT ARCHITECT FOR LOCATIONS PRIOR TO BIDDING. PROVIDE ALL TRANSFORMERS AND INCLUDE IN BID.	
2. ALL LIGHTING FIXTURES AND FANS TO BE SELECTED & LOCATED BY OWNER /ARCHITECT/INTERIOR DESIGNER, UNLESS OTHERWISE NOTED.	
3. CONTRACTOR TO PROVIDE LUMINAIRES TO CONFORM TO ENERGY CODE, THERMAL ENVELOPE RATINGS.	

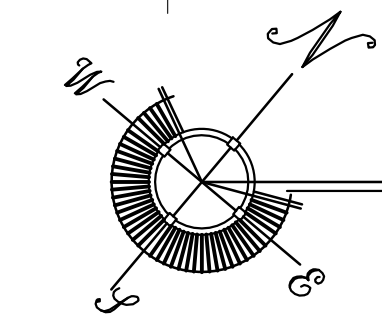
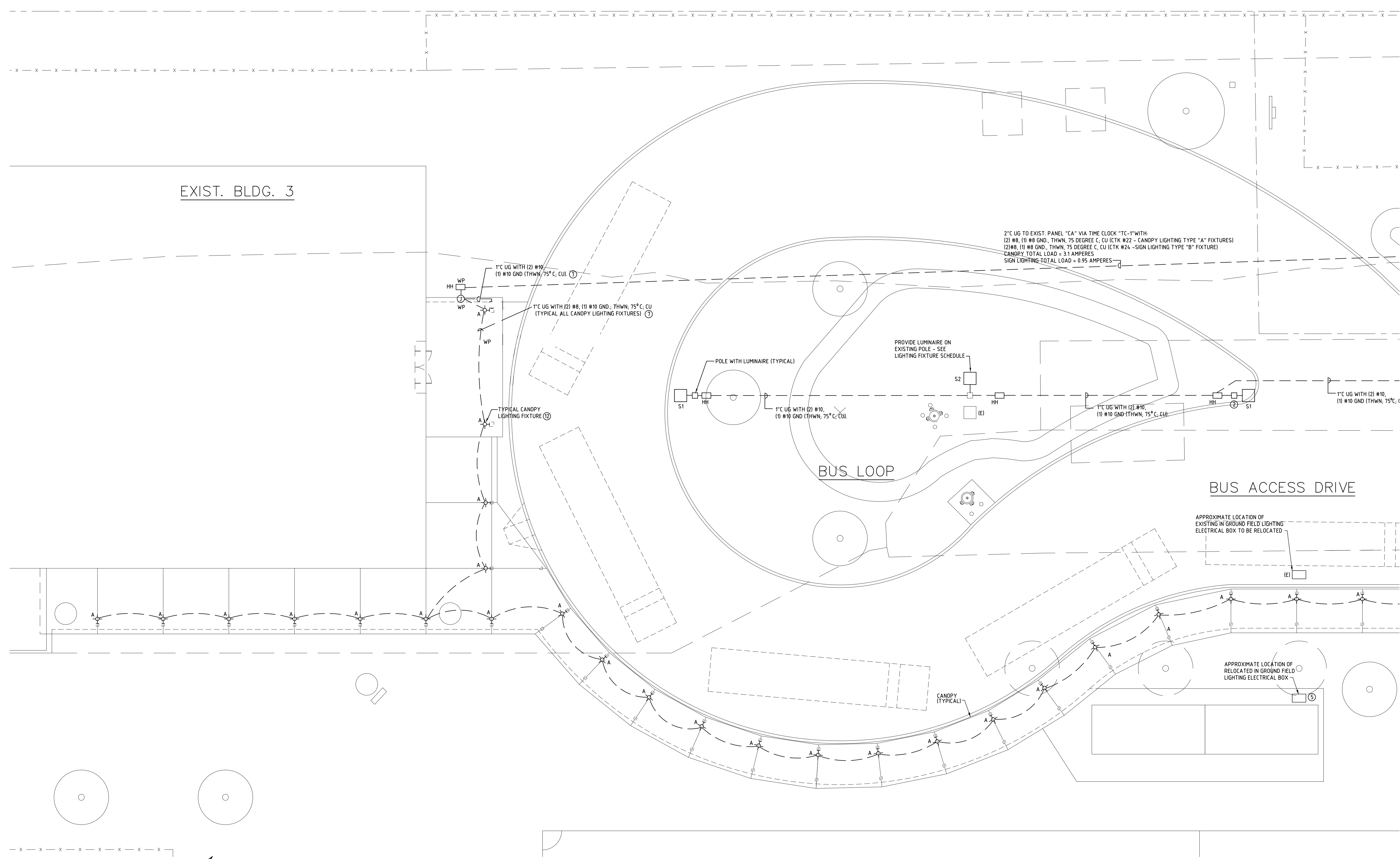
EQUIPMENT REMOVAL NOTES	
SALVAGED MATERIALS SHALL BE DELIVERED TO THE SCHOOL AT HIS PROPERTY AND STORED WITHIN THE BUILDING WHERE DIRECTED. ANY REMOVED MATERIALS OR EQUIPMENT WHICH THE SCHOOL DOES NOT WISH TO KEEP SHALL BE DISPOSED OF BY THE CONTRACTOR, WITHOUT ADDITIONAL COST TO THE SCHOOL.	

SCOPE OF WORK	
THE PROJECT CONSISTS OF SITE LIGHTING FOR A NEW BUS LOOP AND NEW CANOPY WITH CONNECTIONS TO EXISTING PANELBOARDS AND EXISTING BRANCH CIRCUIT INCLUDING EMPTY BOXES WITH EMPTY CONDUITS FOR CCTV AND PA SYSTEMS AT THE CANOPY.	

UL LISTING AND NRTL CERTIFICATIONS NOTE	
CONTRACTOR/MANUFACTURER SHALL PROVIDE COMPLETE DOCUMENTATION AND CERTIFICATIONS FOR ANY EQUIPMENT THAT HE PROPOSES WITH A NRTL (NATIONALLY RECOGNIZED TESTING LAB) LISTING AND LABELING EQUIVALENT TO THE BASIS OF DESIGN UL LISTING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM ACCEPTABILITY BY THE LOCAL AHJ AND AGENCIES FOR THE NRTL LISTING AND CERTIFICATION FOR THE PRODUCTS HE PROPOSES AND DEMONSTRATE SUCH AS PART OF THE PRODUCT DATA SUBMISSION AND INSTALLATION.	







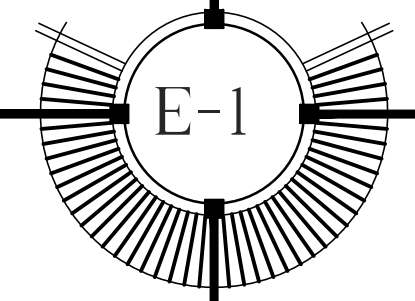
ELECTRICAL SITE PLAN A

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

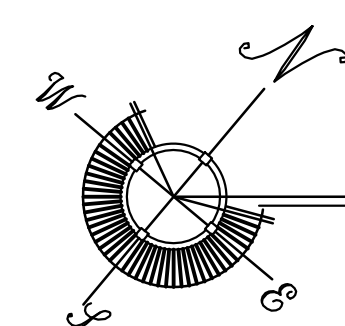
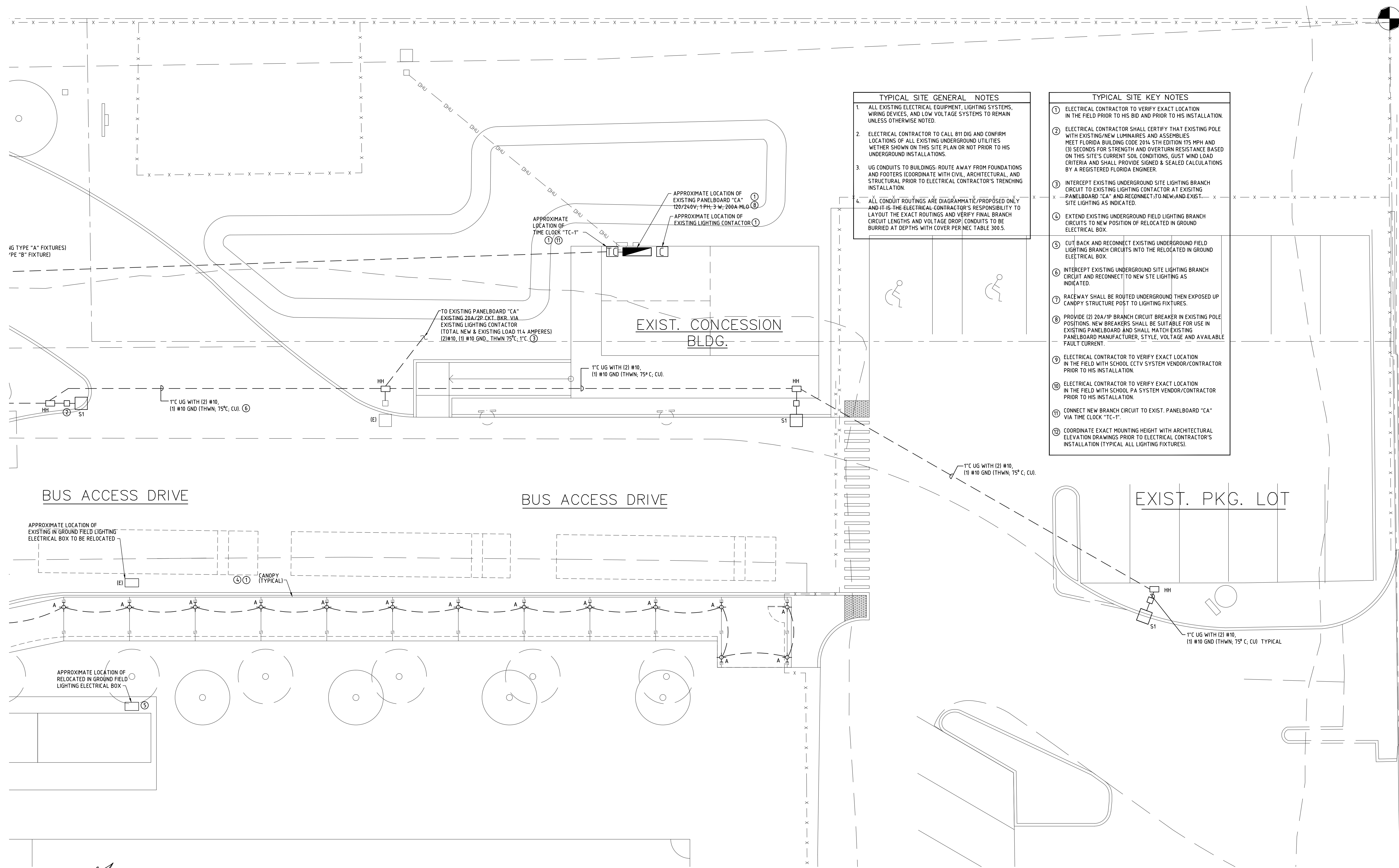
TYPICAL SITE GENERAL NOTES  
REFER TO SHEET E-2

TYPICAL SITE KEY NOTES  
REFER TO SHEET E-2

NEW BUS DROP OFF PICK UP  
HORACE O' BRYANT MIDDLE SCHOOL  
1105 LEON STREET  
KEY WEST, FLORIDA



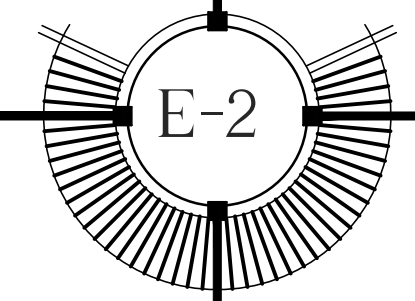




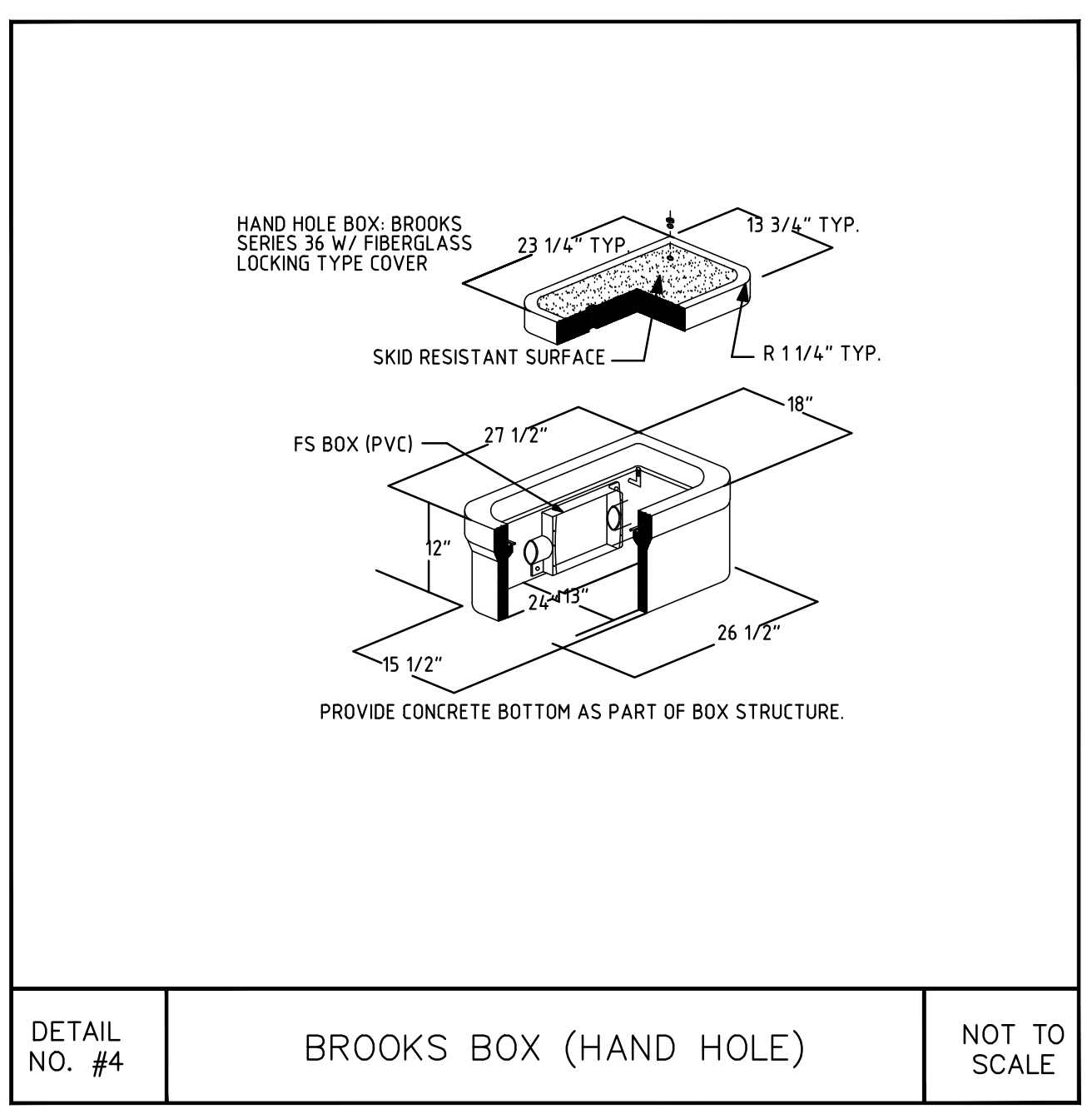
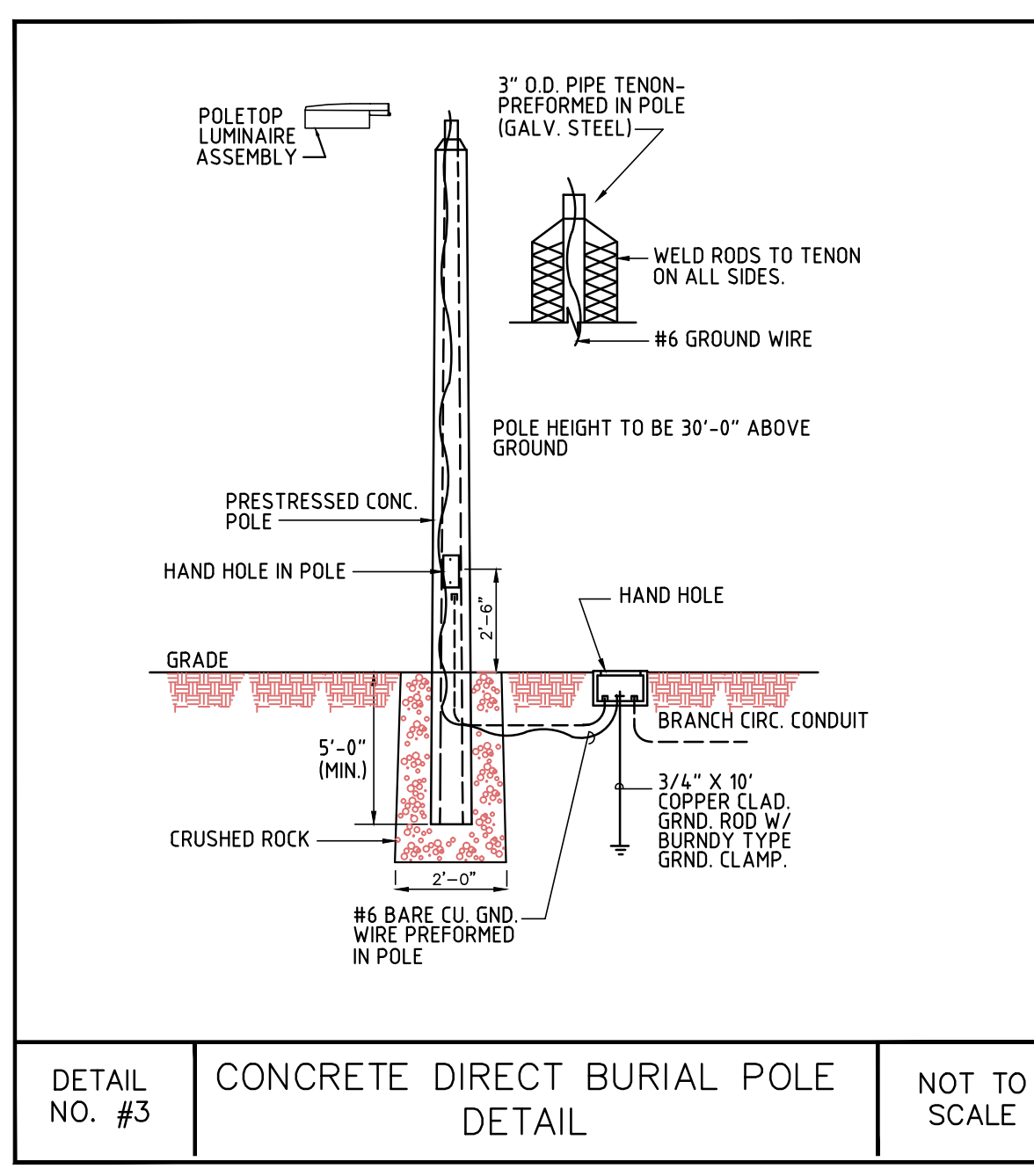
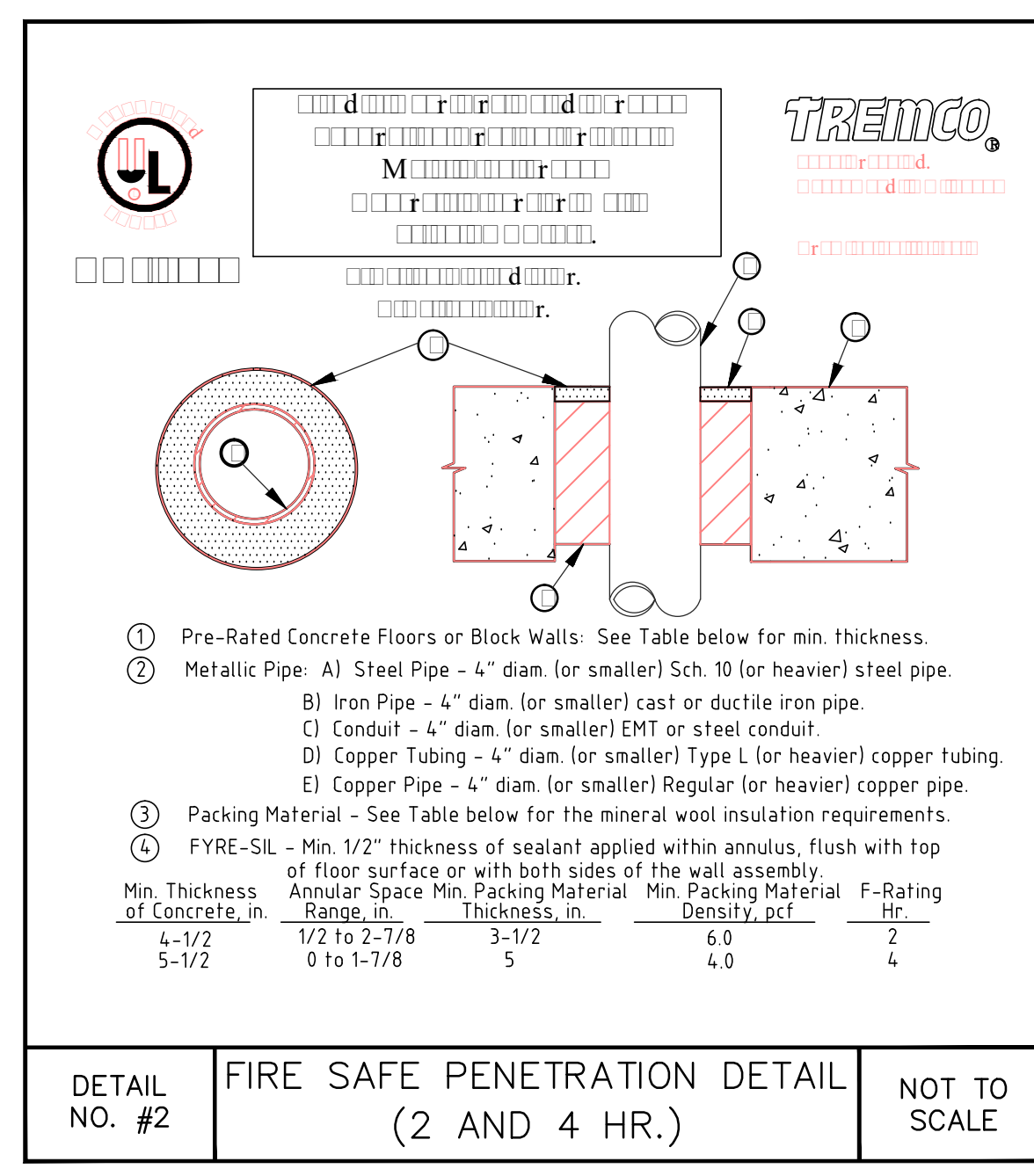
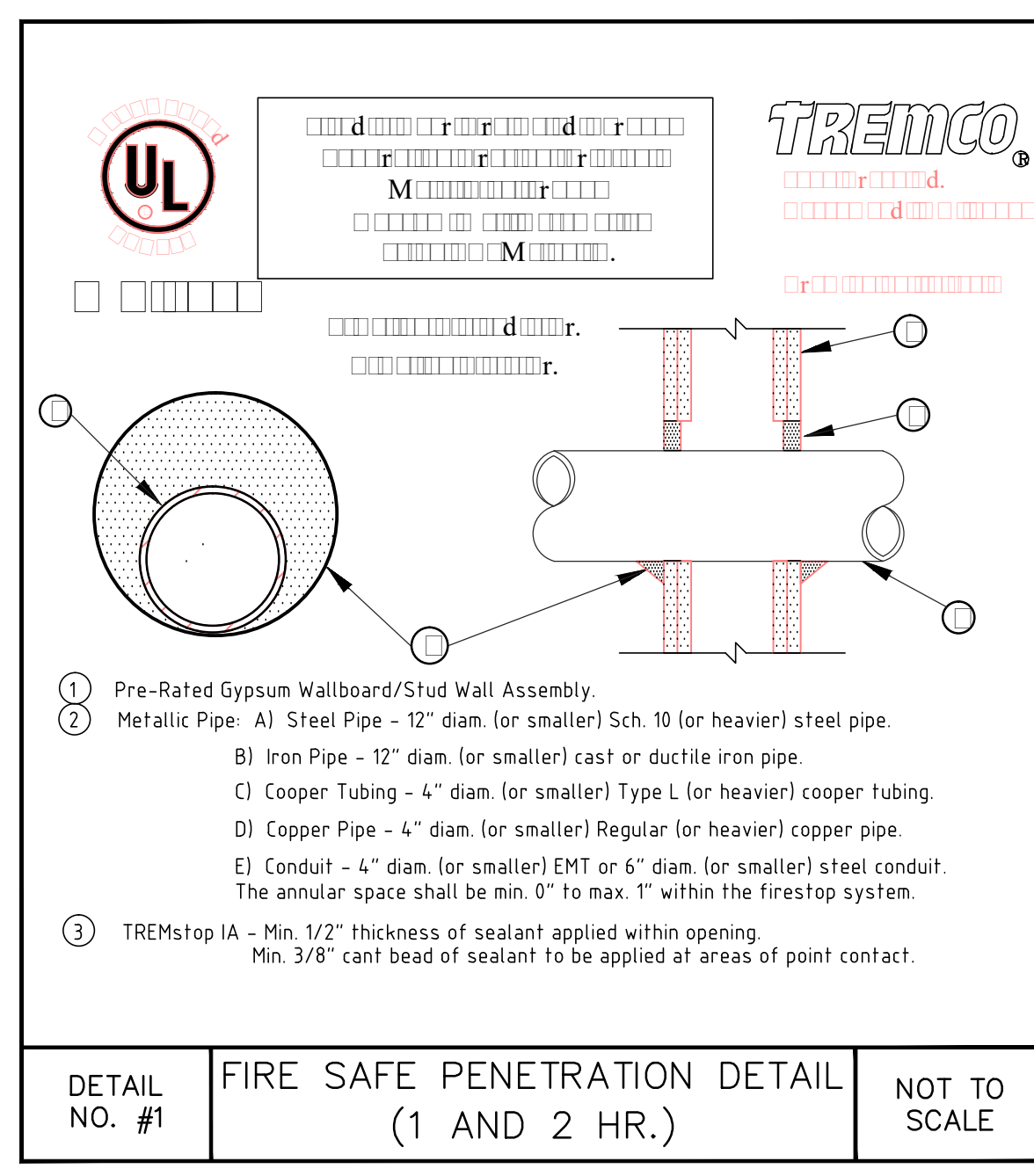
ELECTRICAL SITE PLAN -B

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

NEW BUS DROP OFF PICK UP  
HORACE O' BRYANT MIDDLE SCHOOL  
1105 LEON STREET  
KEY WEST, FLORIDA

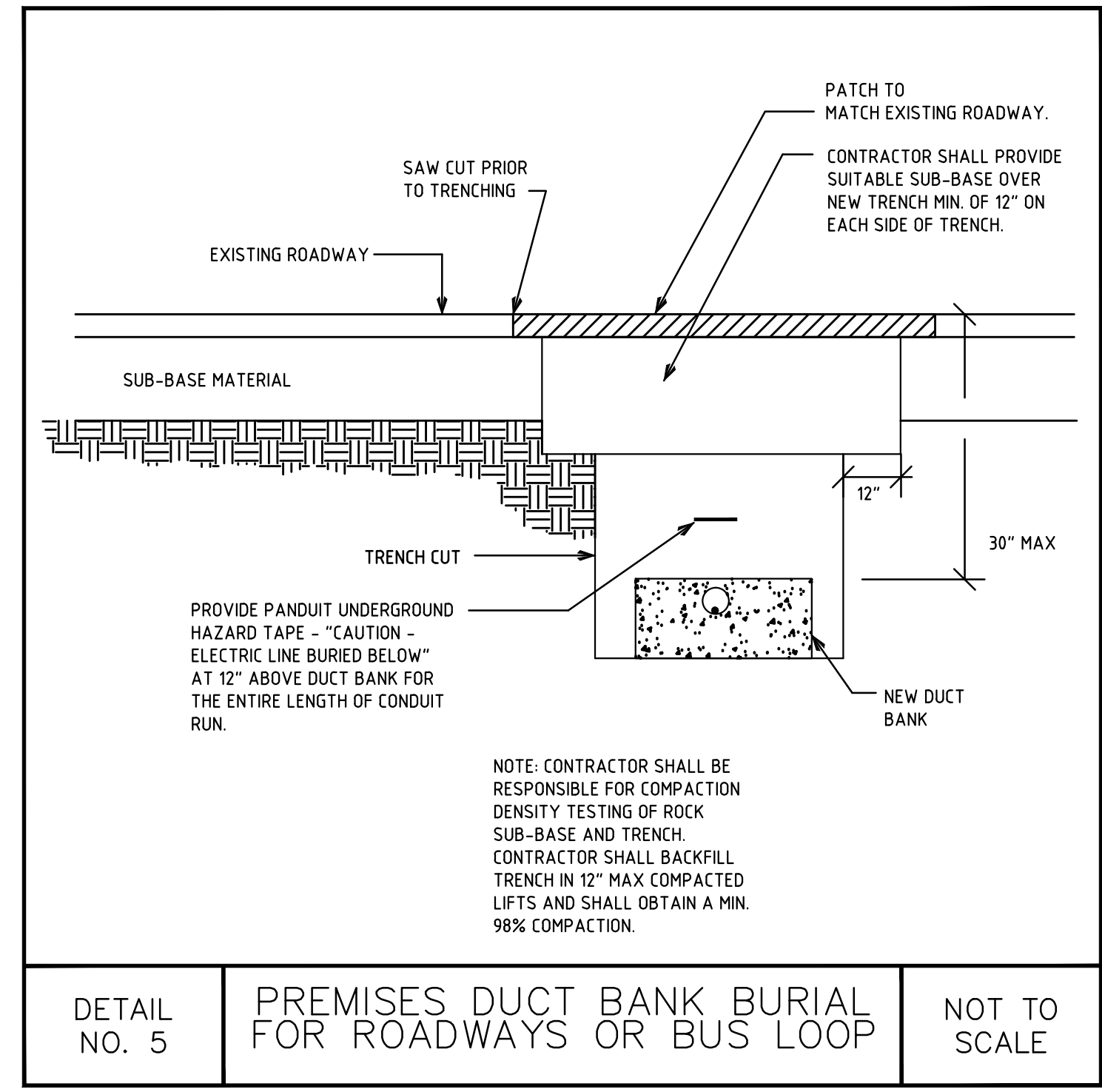






**POLE MOUNTED LUMINAIRE SYSTEMS**

ELECTRICAL CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE BUT NOT BE LIMITED TO PROVIDE POWER, GROUNDING, HAND HOLES, BASES, FUSING, POLE/LUMINAIRE ERECTION AND INSTALLATION TO FORM A COMPLETE OPERATIONAL LIGHTING SYSTEM. THE ELECTRICAL CONTRACTOR SHALL CERTIFY THE NEW POLES AND EXISTING POLES AND LUMINAIRES MEET 2015 5TH EDITION ITS MPH & 3 SEC. FOR STRENGTHENING AND OVERTURN RESISTANCE BASED ON THE EXISTING SITE SOIL CONDITIONS, GUST WIND LOAD CRITERIA AND SHALL PROVIDE SIGNED & SEALED CALCULATIONS BY A REGISTERED FLORIDA STRUCTURAL ENGINEER.



**LIGHTING FIXTURE SCHEDULE**

TYPE	DESCRIPTION/VOLTS	MANUFACTURER AND MODEL NUMBER	LAMPS	WATTS	AREA SERVED	NOTES
A	5'w x 10' h x 4 1/2' d LED SURFACE ON CANOPY POST FIXTURE WITH UV RATED POLYCARBONATE LENS	WF HARRIS, INC. 30 WP LED 1K OW HW 120 TPS	LED	10	OUTDOOR CANOPY	
B	24" LONG BRACKET MOUNTED LED EXTERIOR SIGN LIGHTING FIXTURE	HYDREL RHY2 SSBW WHT4'K MVOLT FL SASH EASRM	LED	57	OUTDOOR HOB SIGN	④
S1	POLE AND SINGLE HID LUMINAIRE	LITHONIA LIGHTING KVFX 400M ASYDL TB SCWA ARM MOUNT 240 VOLT	(1) 400 WATT CLEAR METAL HALIDE, VERT. BASE UP POSITION	420	OUTDOOR BUS LOOP AREAWAYS	① ② ③
S2	HID LUMINAIRE MOUNTED ON EXIST. POLE	LITHONIA LIGHTING KVFX 400M ASYDL TB SCWA ARM MOUNT 240 VOLT	(1) 400 WATT CLEAR METAL HALIDE, VERT. BASE UP POSITION	420	OUTDOOR BUS LOOP AREAWAYS	① ② ③

**NOTES:**  
 ① MINIMUM COLOR TEMPERATURE SHALL BE 4000K.  
 ② SINGLE HEAD FIXTURE VERTICAL LAMP, ALUMINUM HOUSING, CONTINUOUS SEAM-WELDED, SQUARE AREA LIGHT WITH ASYMMETRICAL DISTRIBUTION.  
 ③ CLEAR FLAT TEMPERED GLASS DROP LENS, FULL CUT-OFF. FINISHE TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLORS.  
 ④ VERIFY STRUT ARM LENGTH WITH ARCHITECT PRIOR TO PROCUREMENT.

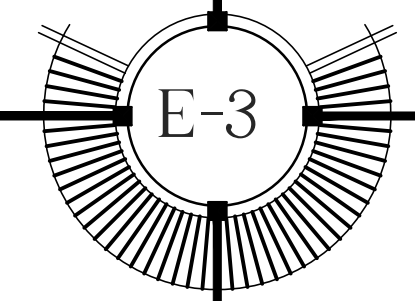
**LOAD SUMMARY SCHEDULE**

PANELBOARD	EXISTING WATTS @ 125% PER NEC	ADDED LOAD WATTS	TOTAL LOAD WATTS	TOTAL LOAD AMPERES	PANELBOARD AMPERES	PANELBOARD FEEDER	REMARKS
EXIST. PANEL "CA"	34,875 ①	2,584 ②	37,459	156.1	200	200 AMPERES ③	

**NOTES:**  
 ① ELECTRICAL CONTRACTOR TO VERIFY (AMPROBE PER NEC 220.87) AND REPORT FINDINGS TO ENGINEER OF RECORD.  
 ② CONTINUOUS LOAD @ 125% PER NEC  
 ③ ELECTRICAL CONTRACTOR TO VERIFY REPORT FINDINGS TO ENGINEER OF RECORD.

**EXISTING ELECTRICAL RISER**

ELECTRICAL RISER DID NOT CHANGE AND NO NEW EQUIPMENT IS SCHEDULED TO BE ADDED OR REMOVED.





ELECTRICAL SPECIFICATIONS

(THIS SPECIFICATION REPRESENTS A BASIS OF DESIGN AND ALL SYSTEMS MAY NOT BE APPLICABLE FOR THIS PROJECT)

DIVISION 16 - ELECTRICAL

1610 BASIC ELECTRICAL REQUIREMENTS

A. ALL WORK AND EQUIPMENT UNDER THIS DIVISION SHALL BE IN COMPLIANCE WITH THE CODES, STANDARDS, AND PRACTICES LISTED HEREIN, AS ADOPTED BY THE AUTHORITY HAVING JURISDICTION (AHJ), INCLUDING, BUT NOT LIMITED TO:

1. LIFE SAFETY CODE - NFPA 101.
2. UNDERWRITERS LABORATORIES, INC. PUBLICATIONS.
3. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA).
4. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
5. NATIONAL ELECTRICAL CODE - NFPA 70.
6. INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE).
7. NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA).
8. INTERNATIONAL POWER CABLE ENGINEER'S ASSOCIATION (IPCEA).
9. NATIONAL ELECTRICAL SAFETY CODE (NIBS HANDBOOK #1).
10. REQUIREMENTS OF LOCAL POWER COMPANY.
11. NATIONAL FIRE PROTECTION ASSOCIATION 72.
12. NATIONAL FIRE PROTECTION ASSOCIATION 99.
13. THE STATE FIRE PREVENTION CODE, A660.
14. BUILDING CODE: FLORIDA BUILDING CODE, ENERGY CODE.
15. OSHA.
16. NFPA 710.
17. ASHRAE 90.1.

B. SCOPE OF WORK:  
THE WORK PROVIDED UNDER THIS DIVISION SHALL INCLUDE ALL LABOR, MATERIALS, PERMITS, INSPECTIONS AND REINSPECTION FEES, TOOLS, EQUIPMENT, TRANSPORTATION, INSURANCE, TEMPORARY PROTECTION, TEMPORARY LIGHTING, SUPERVISION AND INCIDENTAL ITEMS ESSENTIAL FOR PROPER INSTALLATION AND OPERATION, EVEN THOUGH NOT SPECIFICALLY MENTIONED OR INDICATED BUT WHICH ARE USUALLY PROVIDED OR ARE ESSENTIAL FOR PROPER INSTALLATION AND OPERATION OF ALL ELECTRICAL SYSTEMS AS INDICATED IN CONTRACT DOCUMENTS.

1. CONNECTION OF ALL EQUIPMENT FURNISHED BY OTHERS OR IN CONTRACT.

C. NOTICES:  
GIVE ALL NOTICES, FILE ALL PLANS, PAY ALL FEES, OBTAIN ALL PERMITS AND APPROVALS FROM AUTHORITIES HAVING JURISDICTION. INCLUDE ALL PLAN REVIEW, PERMITTING, ENVIRONMENTAL AND PPL/UTILITY CHARGES AND FEES IN THE BID PRICE.

D. INTERPRETATION OF DRAWINGS:

1. THE DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EXACT LOCATIONS OF CONDUIT RUNS, OUTLET BOXES, JUNCTION BOXES, PULL BOXES, ETC. THE LOCATIONS OF EQUIPMENT, FIXTURES, CONDUITS, OUTLETS, BOXES AND SIMILAR DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE AS ACCEPTED BY THE ENGINEER DURING CONSTRUCTION. OBTAIN IN THE FIELD ALL INFORMATION RELEVANT TO THE PLACING OF ELECTRICAL WORK AND IN CASE OF INTERFERENCE WITH OTHER WORK, PROCEED AS DIRECTED BY THE ENGINEER AND PROVIDE AL LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK IN AN ACCEPTABLE MANNER.

2. DISCREPANCIES:  
NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES FOUND DURING CONSTRUCTION OF THE PROJECT AND DO NOT PROCEED WITH THAT PORTION OF THE PROJECT UNTIL A WRITTEN DEFINITIVE STATEMENT IS RECEIVED PROVIDING CLEAR DIRECTION. IF A CONFLICT EXISTS BETWEEN THE CONTRACT DOCUMENTS AND ANY APPLICABLE CODE OR STANDARD, THE MOST STRINGENT REQUIREMENT SHALL BE INCLUDED FOR THIS PROJECT. THE ENGINEER SHALL MAKE THE DECISION REGARDING QUESTIONABLE AREAS OF CONFLICT.

3. WIRING:  
EACH THREE-PHASE CIRCUIT SHALL BE RUN IN A SEPARATE CONDUIT UNLESS OTHERWISE SHOWN ON THE DRAWINGS. UNLESS OTHERWISE ACCEPTED BY THE ENGINEER, CONDUIT SHALL NOT BE INSTALLED EXPOSED UNLESS SPECIFICALLY DIRECTED. PROVIDE CONCEALED, NON EXPOSED RACEWAYS IN FINISHED OR ARCHITECTURALLY SENSITIVE AREAS. WHERE CIRCUITS ARE SHOWN AS "HOME-RUNS" ALL NECESSARY FITTINGS AND BOXES SHALL BE PROVIDED FOR A COMPLETE RACEWAY INSTALLATION.

IN GENERAL, ALL LIGHTING BRANCH CIRCUITS SHALL BE SEPARATE FROM POWER AND RECEPTACLE BRANCH CIRCUITS.

E. INVESTIGATION ON SITE:

1. GENERAL: BEFORE COMMENCING THE WORK, VERIFY EXISTING CONDITIONS AT THE PREMISES INCLUDING, BUT NOT LIMITED TO, EXISTING STRUCTURAL FRAME, LOCATION AND ALL DIMENSIONS, EXISTING OPENINGS AND CHARACTERISTICS, EXISTING WALL AND PARTITION LOCATIONS, CHARACTERISTICS AND RELATIONSHIP TO EACH OTHER, EXISTING MECHANICAL AND ELECTRICAL WORK, EQUIPMENT TYPE, AND SHALL EXAMINE ALL ADJOINING WORK ON WHICH HIS WORK IF ANYWAY DEPENDENT FOR ITS PERFECT EFFICIENCY ACCORDING TO THE INTENT OF THE CONTRACT DOCUMENTS.

2. POWER OUTAGE:  
SPECIAL ATTENTION IS CALLED TO THE FACT THAT IF WORK INVOLVED IS IN CONNECTION WITH EXISTING BUILDINGS WHICH REMAIN IN OPERATION WHILE WORK IS BEING PERFORMED, WORK MUST BE DONE IN ACCORDANCE WITH THE PRIORITY SCHEDULE. SCHEDULE WORK FOR A MINIMUM OUTAGE TO OWNER. REQUEST WRITTEN PERMISSION AND RECEIVE WRITTEN ACCEPTANCE FROM THE SCHOOL NO LATER THAN 24 HOURS IN ADVANCE OF ALL POWER AND COMMUNICATION SHUT-DOWNS. PERFORM WORK REQUIRED AT OTHER THAN STANDARD WORKING HOURS WHERE OUTAGES CANNOT BE ACCEPTED BY THE SCHOOL DURING REGULAR WORKING HOURS. PROTECT EXISTING BUILDINGS AND EQUIPMENT DURING CONSTRUCTION. PROVIDE TEMPORARY POWER, GENERATORS, CIRCUIT ALTERATIONS AS MAY BE REQUIRED FOR MAINTENANCE OF OPERATIONS.

3. SPECIAL CONSIDERATIONS:  
SPECIAL ATTENTION IS CALLED TO THE FACT THAT IF THERE MAY BE PIPING, FIXTURES OR OTHER ITEMS IN THE EXISTING SITE OR BUILDING WHICH MUST BE REMOVED OR RELOCATED IN ORDER TO PERFORM THE ALTERATION WORK, BID SHALL INCLUDE ALL REMOVAL, RELOCATION, AND RE-CONNECTION REQUIRED FOR COMPLETION OF THE ALTERATIONS AND THE NEW CONSTRUCTION.

4. DEMOLITION - GENERAL:  
DURING THE EXECUTION OF WORK, ALL REQUIRED RELOCATION, REROUTING, ETC, OF EXISTING AREAS WHERE THE WORK IS REQUIRED, SHALL BE PERFORMED BY THE CONTRACTOR, AS INDICATED ON THE DRAWINGS, OR AS REQUIRED BY JOB CONDITIONING AND AS DETERMINED BY THE ARCHITECT IN THE FIELD, TO FACILITATE THE INSTALLATION OF THE NEW SYSTEMS. THE SCHOOL SHALL REQUIRE CONTINUOUS OPERATION OF THE EXISTING SYSTEMS, WHILE DEMOLITION, RELOCATION WORK OR NEW TIE-INS ARE PERFORMED.

5. SCHOOL'S SALVAGE: THE SCHOOL RESERVES THE RIGHT TO INSPECT THE MATERIAL SCHEDULED FOR REMOVAL AND SALVAGE ANY ITEMS HE DEEMS USABLE AS SPARE PARTS.

F. EXISTING CONDITIONS:

1. SUPPORT:  
ALL EXISTING CONDUIT AND CABLES WITHIN THE AREA OF RENOVATION SHALL BE PROVIDED WITH PROPER SUPPORT AS SPECIFIED FOR NEW WORK IN OTHER SECTIONS OF THIS SPECIFICATION.

2. INSTALLATION:  
ALL EXISTING ELECTRICAL WHICH IS DESIGNATED FOR REWORKING OR REQUIRES RELOCATION, REPAIR OR ADJUSTMENT SHALL CONFORM TO ALL APPLICABLE CODES AND SHALL BE TREATED AS NEW WORK COMPLYING TO ALL SECTIONS OF THIS SPECIFICATION.

3. VIOLATIONS:  
WHERE EXISTING CONDITIONS ARE DISCOVERED WHICH ARE NOT IN COMPLIANCE WITH THE CODES AND STANDARDS, THE CONTRACTOR SHALL SUBMIT PROPER DOCUMENTATION TO THE ARCHITECT FOR CLARIFICATION AND CORRECTIVE WORK DIRECTION. EXISTING CONDITIONS SHALL NOT REMAIN WHICH WILL CREATE A DISAPPROVAL OF THE RENOVATED AREA.

4. PATCHING:  
ALL EXISTING CONDUIT AND CABLE PENETRATIONS SHALL BE PROPERLY FIRE TREATED PER CODE AND SPECIFICATION REQUIREMENTS. THE CONTRACTOR SHALL THOROUGHLY INSPECT ALL EXISTING LOCATIONS AND INCLUDE THE COST OF PATCHING AND REPAIR IN HIS PROPOSED CONSTRUCTION COST.

G. ALL MATERIALS SHALL BE NEW, FREE FROM DEFECTS AND SHALL BE EITHER U.L. LABELED, U.L. LISTED OR BEAR THE SEAL OF A NATIONALLY RECOGNIZED ELECTRICAL TESTING LABORATORY DEEMED ACCEPTABLE BY AHJ.

H. SHOP DRAWINGS AND PRODUCT DATA ARE REQUIRED FOR ALL MATERIALS AND EQUIPMENT.

I. ALL EQUIPMENT SHALL BE FIRMLY MOUNTED USING APPROVED HANGERS ATTACHED TO STRUCTURAL PORTIONS OF THE BUILDING. SUPPORTING WITH TIE WIRE IS PROHIBITED. LIGHT FIXTURES SURFACE MOUNTED IN CEILINGS SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE INDEPENDENT OF THE CEILING SYSTEM.

J. SERVICES AND METERING ARE EXISTING TO REMAIN.

K. SYSTEMS GUARANTEE:  
PROVIDE A ONE-YEAR GUARANTEE. THIS GUARANTEE SHALL BE BY THE CONTRACTOR TO THE SCHOOL FOR ANY DEFECTIVE WORKMANSHIP OR MATERIAL WHICH HAS BEEN PROVIDED UNDER THIS CONTRACT AT NO COST TO THE SCHOOL FOR A PERIOD IF ONE-YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION OF THE SYSTEM. THE GUARANTEE SHALL INCLUDE ALL LAMPS, FOR NINETY DAYS AFTER DATE OF SUBSTANTIAL COMPLETION OF THE SYSTEM. EXPLAIN THE PROVISIONS OF GUARANTEE TO THE SCHOOL AT THE "DEMONSTRATION OF COMPLETED SYSTEM". PROVIDE AN 11 MONTH WARRANTY WALK-THROUGH WITH SCHOOL'S REP. AND CORRECT ALL DEFICIENCIES TO THE SCHOOL'S SATISFACTION. PREPARE WRITTEN REPORT DOCUMENTING FINDINGS, ACTIONS, RECOMMENDATIONS FOR THE SCHOOL.

L. RELATED WORK AND DOCUMENTS: CONTRACTOR SHALL REVIEW THE COMPLETE PROJECT DOCUMENTS PRIOR TO BIDDING. ALL SECTIONS INCLUDING, BUT NOT LIMITED TO, SPECIAL AND GENERAL CONDITIONS ARE TO BE COORDINATED AND MADE PART OF BIDDING AND THIS PROJECT.

M. PROVIDE ALL EXTERIOR SUPPORTS AND SYSTEMS IN COMPLIANCE WITH HIGH VELOCITY HURRICANE ZONE REQUIREMENTS (HVHZ). PROVIDE CERTIFICATIONS AND DOCUMENTATION.

N. REQUESTS FOR SUBSTITUTIONS:

1. CONTRACTOR SHALL PREPARE REQUESTS WITH COMPLETE COORDINATION INFORMATION. INCLUDE ALL CHANGES REQUIRED IN OTHER ELEMENTS OF THE WORK TO ACCOMMODATE THE SUBSTITUTION INCLUDING WORK PERFORMED BY THE SCHOOL AND THE SEPARATE CONTRACTORS.

2. PROVIDE COMPLETE SUPPORTING DATA QUALIFYING THE SUBSTITUTION COMPARED TO THE BASIS OF DESIGN SYSTEM. PROVIDE A DETAILED LIST OF ANY VARIANCES, LIGHTING POWER DENSITY AND PHOTOMETRICS, PHYSICAL OR SPATIAL LAYOUTS, ELEVATIONS, ETC. TO THE BASIS OF DESIGN.

3. PROVIDE A STATEMENT INDICATING THE EFFECT THE SUBSTITUTION WILL HAVE ON THE WORK SCHEDULE IN COMPARISON TO THE SCHEDULE WITHOUT APPROVAL OF THE PROPOSED SUBSTITUTION. INCLUDE INFORMATION REGARDING THE EFFECT OF THE PROPOSED SUBSTITUTION ON THE CONTRACT TIME.

4. PROVIDE COMPLETE COST INFORMATION INCLUDING A PROPOSAL OF THE NET CHANGE, IF ANY, IN THE CONTRACT SUM.

5. PROVIDE CERTIFICATION BY THE CONTRACTOR TO THE EFFECT THAT, IN THE CONTRACTOR'S OPTION, AFTER THOROUGH EVALUATION, THE PROPOSED SUBSTITUTION WILL RESULT IN WORK THAT IN EVERY SIGNIFICANT RESPECT IS EQUAL TO OR BETTER THAN THE WORK REQUIRED BY THE CONTRACTOR DOCUMENTS AND THAT IT WILL PERFORM ADEQUATELY IN THE APPLICATION INDICATED.

6.

1620 TEST AND PERFORMANCE VERIFICATION: COMPLETION OF WORK

A. INSTALL, ADJUST AND TEST ALL ELECTRICAL SYSTEMS.

B. CABLES, GROUNDS, AND THE EMERGENCY SYSTEM SHALL BE THOROUGHLY TESTED. CONTRACTOR SHALL PROVIDE A REPORT INDICATING THE RESULTS OF ALL TESTS.

C. PREPARE OPERATION AND MAINTENANCE MANUALS, AS BUILDS.

1630 ELECTRICAL IDENTIFICATION

A. LANGUAGE: ALL IDENTIFICATION SHALL BE IN ENGLISH.

B. CONDUITS SYSTEM MAKERS SHALL BE ENGRAVED PLASTIC, LAMINATE NAMEPLATES AND SHALL BE ADHESIVE OR PRE-TENSIONED SNAP ON COLOR CODED, SYSTEM MARKING MATERIALS.

C. IDENTIFICATION: IDENTIFY ALL RACEWAYS PROVIDED OR UTILIZED AS PART OF THIS PROJECT AS FOLLOWS:

1. APPLY BANDS 10 FEET ON CENTER ALONG THE RACEWAY SYSTEM AND AT EACH SIDE OF WALLS OR FLOORS, AND AT BRANCHES FROM MAINS.

2. IDENTIFY THE FOLLOWING SERVICES:

SERVICE	LABEL
A. LOW VOLTAGE	120/240 VOLTAGE
B. HIGH VOLTAGE	277/480 VOLTAGE

EQUIPMENT BRANCH EQUIPMENT BRANCH

3. SPOT PAINTING ON ROUGH-IN:

A CONDUIT, RACEWAYS, BOXES, BACKBONES, PANELBOARDS, ETC. SHALL BE SPOT PAINTED. CONDUIT SHALL BE IDENTIFIED WITHIN 6 INCHES OF THE BOX OR ENCLOSURE. THE ENTIRE BOX AND COVERPLATE SHALL BE PAINTED.

D. USE THE FOLLOWING COLORS FOR COLOR BANDS AND FOR COLOR CODING:

SYSTEM	COLOR
1) EQUIPMENT BRANCH	KELLY GREEN
2) NORMAL POWER	WHITE
3) MISCELLANEOUS COMMUNICATIONS	BROWN

E. CABLE AND CONDUCTOR IDENTIFICATION WILL BE AS PER NFPA 70

F. OPERATIONAL SIGNAGE SHALL BE PROVIDED WHERE REQUIRED.

G. PROVIDE NAME PLATES, SECURITY FASTENED, ON ALL MAJOR EQUIPMENT.

H. PROVIDE "ARC FLASH" WARNING SIGNAGE.

1610 BASIC MATERIALS AND METHODS

A. RACEWAYS AND FITTINGS:

1. ALL WIRING SHALL BE INSTALLED IN APPROPRIATE RACEWAY SYSTEMS OF RIGID GALVANIZED (RGS) CONDUIT, ELECTRICAL METALLIC TUBING, FLEXIBLE STEEL CONDUIT AND LIQUID-TIGHT FLEXIBLE CONDUIT AS CONDITIONS AND CODES DICTATE. EMT SHALL BE JOINED WITH STEEL COMPRESSION TYPE FITTINGS.

A. IN STUD PARTITIONS, CONCEALED ABOVE CEILING EMT

B. IN MECHANICAL ROOMS, SUBJECT TO ABUSE: RGS

C. BURIED CONDUIT:

1. 1" MINIMUM TRADE SIZE
2. IN CONCRETE - RGS, SCH 40/80 PVC, RGS SWEEPS
3. BELOW SLABS - RGS, SCH 40/80 PVC, RGS SWEEPS
4. DIRECT BURY - EXTERIOR: RGS, SCH 40/80 PVC
5. STUBS THRU SLABS - RGS

D. FLEXIBLE METALLIC RACEWAY - 24" MAX LENGTH

2. ALL CONDUIT SHALL HAVE AN INSULATED COPPER EQUIPMENT GROUNDING CONDUCTOR THROUGHOUT THE ENTIRE LENGTH OF THE CIRCUIT WITHIN THE CONDUIT.

3. MINIMUM SIZE: 3/4", UNLESS OTHERWISE NOTED (UON).

1620 WIRES AND CABLES

A. ALL BRANCH CIRCUITS SHALL BE COPPER WITH THHN OR THWN INSULATION. MINIMUM SIZE #12 AWG.

B. FEEDERS AND SUBFEEDERS SIZE #4 AND LARGER SHALL BE XHHW COPPER, UNLESS OTHERWISE NOTED.

C. COLOR CODING SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE OR JURISDICTION SPECIFICALLY. PHASE CONDUCTORS OF EACH VOLTAGE SYSTEM MUST BE OF A DIFFERENT COLOR. NEUTRALS SHALL BE WHITE FOR 120/208 AND GRAY FOR 277/480. EQUIPMENT GROUNDING CONDUCTORS SHALL BE GREEN INSULATED.

D. TAPS AND SPLICES: FOR #8 OR SMALLER CONDUCTORS SHALL USE PRE-INSULATED SCOTCHLOCK OR IDEAL WING-NUT SPRING TENSION CONNECTIONS, FOR LARGER THAN #8 CONDUCTORS USE APPROVED SOLDERLESS, PRESSURE TYPE BOLTED CONNECTORS.

E. EXTERIOR CIRCUITS SHALL USE BOLTED CONNECTOR, GEL FILLED CAPS.

1630 OUTLET BOXES

A. OUTLET BOXES SHALL BE ONE PIECE OR PROJECTION WELDED, GALVANIZED STAMPED STEEL FOR GANG SIZES REQUIRED. SECTIONAL BOXES ARE NOT ACCEPTABLE. BOXES SHALL BE 4" SQUARE AND 1-1/2" DEEP GENERALLY. LARGER BOXES SHALL BE USED AS REQUIRED BY CODE.

PULL/JUNCTION BOXES: GALVANIZED STEEL, 14 GAUGE MINIMUM, INSTALL IN ACCESSIBLE LOCATIONS.

1642S SERVICE AND DISTRIBUTION

A. SERVICES ARE EXISTING TO REMAIN.

16450 GROUNDING

A. GENERAL: PROVIDE A COMPLETE GROUNDING SYSTEM IN ACCORDANCE WITH NEC.

1. EQUIPMENT GROUNDING CONDUCTOR IN ALL RACEWAY SYSTEMS.

2. INSTALL GROUNDING BUSHINGS.

3. INSTALL GROUNDING BONDING JUMPER ACROSS ALL BUILDING EXPANSION JOINTS AND RACEWAY EXPANSION FITTINGS.

4. INSTALL GROUNDING ELECTRODE SYSTEM AS REQUIRED BY AHJ.

5. PROVIDE A GROUND TEST WELL FOR SERVICE AT THE GROUND ROD CLOSEST TO THE SERVICE ENTRANCE.

6. USE EXOTHERMIC SYSTEMS FOR ALL UNDERGROUND CONNECTIONS.

7. PROVIDE GROUND BARS IN ALL ELECTRIC AND TELCOM ROOMS.

8. PROVIDE A MAIN PRINCIPLE GROUND TRIAD FOR SERVICE ENTRANCE.

9. CERTIFY GROUND SYSTEM TESTING TO ACHIEVE LESS THAN 5 OHMS USING A CLAMP-ON OR 3 POINT FALL OF POTENTIAL TESTER.

10. PROVIDE SUPPLEMENTARY ELECTRODES, UFER GROUNDS TO ACHIEVE RESISTANCE OHMS.

16500 LIGHTING

A. LIGHTING SHALL BE DESIGNED FOR TYPE OF TASK INVOLVED AND IN GENERAL SHALL UTILIZE HID LAMPS AND LED ARRAYS, UON.

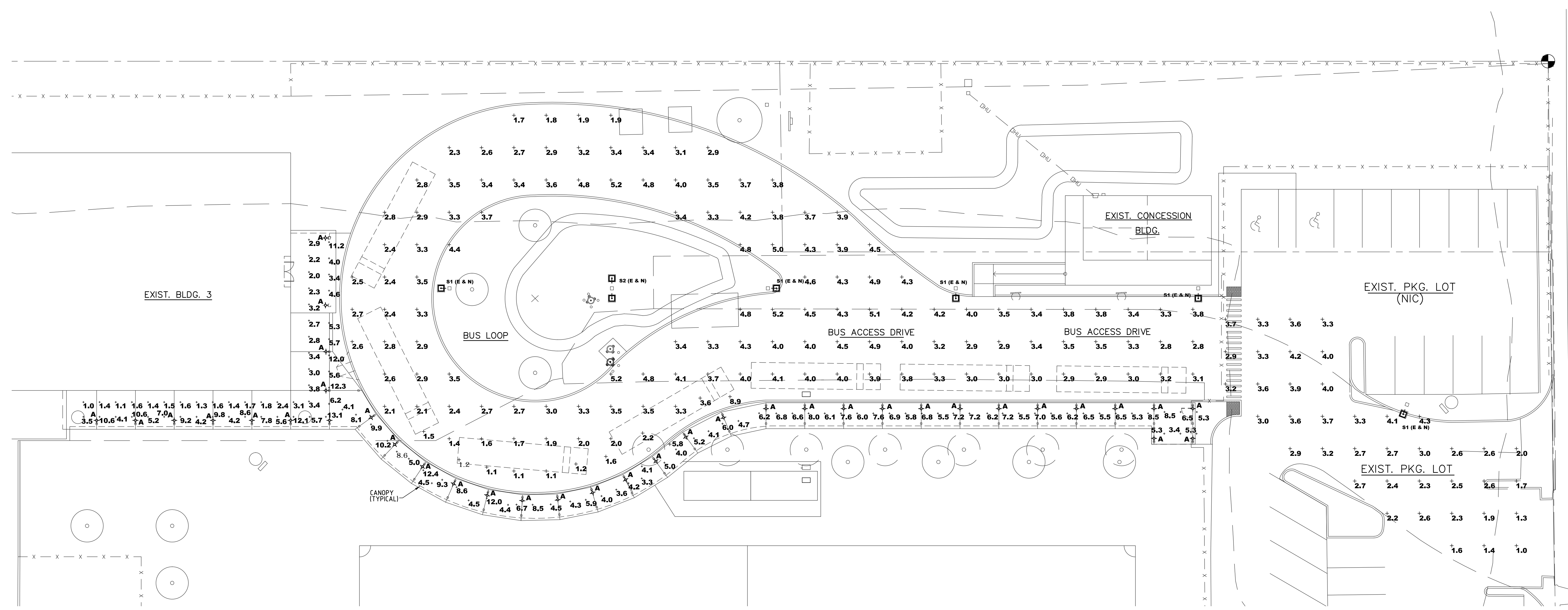
B. IN GENERAL, FIXTURE TYPES SHALL BE:

1. REFER TO LIGHTING FIXTURE SCHEDULE.

C. HID BALLASTS SHALL BE HIGH POWER FACTOR TYPE PROTECTED BY IN-LINE FUSES.

D. REFER TO LIGHTING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.



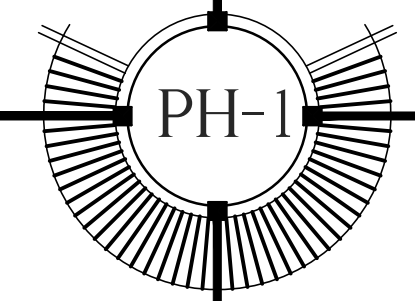


**SITE PHOTOMETRICS**  
 SCALE: 1/16"=1'-0"

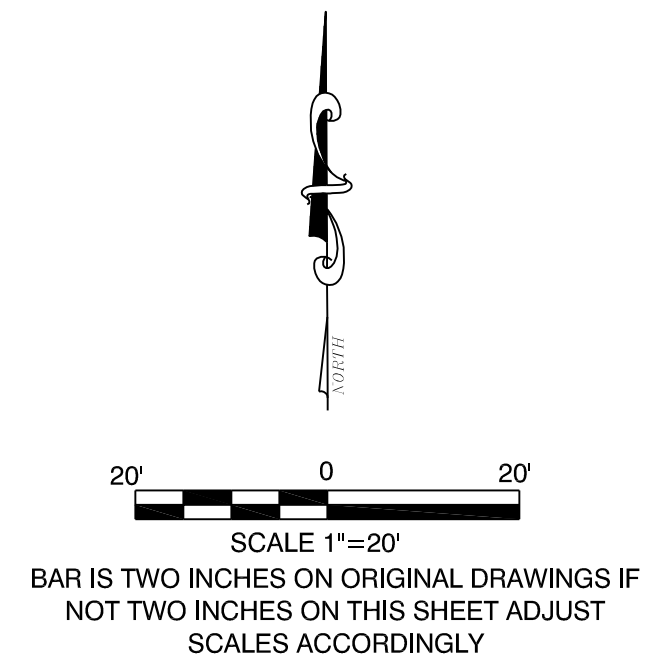
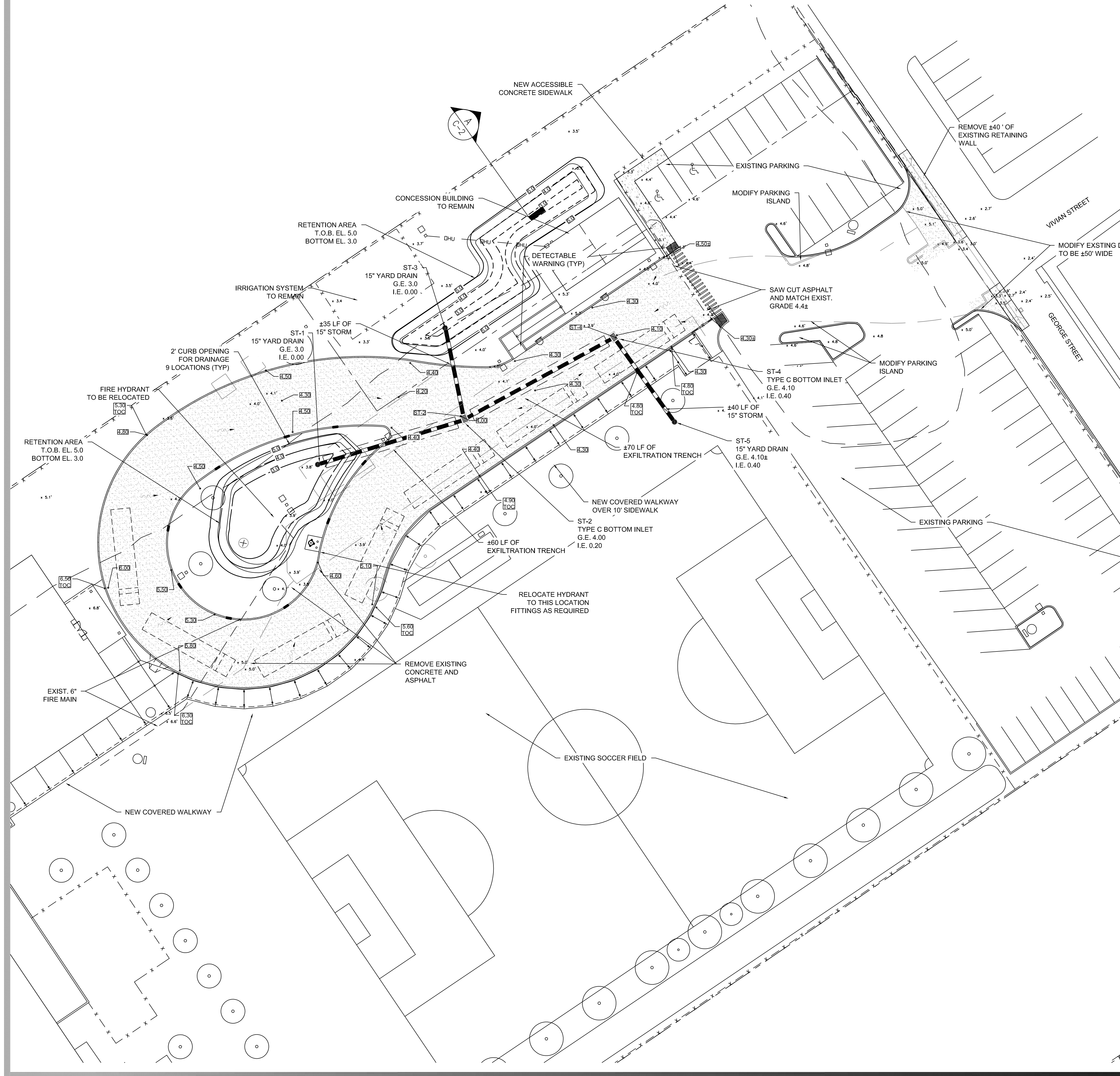
Luminaire Schedule									
Project: HORACE O'BRYANT SCHOOL - NEW BUS DROP OFF PICK UP KEY WEST, FL 02/23/2017									
Symbol	Qty	Label	Arrangement	Mounting Ht.	Manufacturer	Description	Lum. Lumens	LLF	Lum. Watts
	4	S1 (E & N)	SINGLE	20 Ft.	Lithonia Lighting	KVF2 400M ASYDL MH: 20' POLE MOUNT A.F.G.	23445	0.765	456
	1	S2 (E & N)	BACK-BACK	20 Ft.	Lithonia Lighting	KVF2 400M ASYDL MH: 20' POLE MOUNT A.F.G.	23445	0.765	456
	37	A	SINGLE	7 Ft.	Lithonia Lighting	30-WP-LED 1K xx xx 120 MH: 7'-0" COLUMN MOUNT A.F.F.	1200	0.855	9.6

Calculation Summary							
Project: HORACE O'BRYANT SCHOOL - NEW BUS DROP OFF PICK UP KEY WEST, FL 02/23/2017							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
BUS LOOP	Illuminance	Fc	3.31	5.4	1.0	3.31	5.40
UNDER CANOPY	Illuminance	Fc	5.51	13.1	1.0	5.51	13.10

**NEW BUS DROP OFF PICK UP**  
**HORACE O' BRYANT MIDDLE SCHOOL**  
 1105 LEON STREET  
 KEY WEST, FLORIDA







**GENERAL NOTES**

1. THE CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS AND ADVISE THE ENGINEER OF ANY CONFLICTS OF REPRESENTATION BETWEEN DRAWINGS AND/OR SPECIFICATIONS PRIOR TO COMMENCING WITH CONSTRUCTION.
2. THE CONTRACTOR SHALL FIELD-VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING ANY WORK UNDER THIS CONTRACT AND NOTIFY THE ENGINEER IN WRITING OF ANY DIFFERENCES BEFORE COMMENCING WITH ANY CONSTRUCTION.
3. HORIZONTAL COORDINATES ARE BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM. VERTICAL ELEVATIONS ARE BASED ON NGVD 1929 DATUM.
4. THE LOCATIONS, SIZES, AND ELEVATIONS OF EXISTING UTILITIES AS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO OBTAIN ANY AVAILABLE RECORD DRAWINGS AND SHALL DETERMINE THE EXACT LOCATION AND ELEVATION IN THE FIELD. THE CONTRACTOR SHALL ANTICIPATE THAT SCANNING AND EXCAVATION USING LIGHT EQUIPMENT AND HAND METHODS WILL BE NECESSARY IN AREAS NEAR EXISTING UTILITIES AND STRUCTURES TO AVOID DAMAGING THESE FACILITIES. THE CONTRACTOR SHALL CONTACT BELLSOUTH, THE LOCAL TELEPHONE COMPANY AND COMCAST, THE LOCAL CABLE TV PROVIDER TO VERIFY THE LOCATION OF BURIED TELEPHONE AND CABLE TV UTILITIES. NONE HAVE BEEN INDICATED ON THE DRAWINGS. CALL 1-800-432-4770 BEFORE DIGGING OR TRENCHING OPERATIONS BEGIN. CONTRACTOR SHALL ALSO CONTACT KEYS ENERGY TO LOCATE SECONDARY ELECTRIC LINES.
5. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION AND ELEVATION IN THE FIELD PRIOR TO INSTALLING ANY NEW WORK THAT CROSSES OR CONNECTS TO EXISTING UTILITY SYSTEMS. LOCATIONS OF NEW UTILITIES SHALL BE ADJUSTED IN A MANNER APPROVED BY THE ENGINEER TO AVOID CONFLICTS. DAMAGES TO UTILITIES RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE CLIENT.
6. ALL EXCAVATION, TRENCHING, SHEETING, SHORING AND BRACING SHALL BE INSTALLED AS REQUIRED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS, INCLUDING OSHA (29 CFR 1926).
7. ALL ITEMS INDICATED TO BE REMOVED OR DEMOLISHED SHALL BE REVIEWED WITH THE OWNER TO DETERMINE IF THE ITEM IS TO BE PROPERTY OF THE CONTRACTOR. ALL ITEMS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS, UNLESS OTHERWISE NOTED. NO SALVAGE VALUE IS EXPRESSED OR IMPLIED BY THESE CONTRACT DOCUMENTS FOR ANY ITEMS TO BE REMOVED OR DEMOLISHED.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF THE CONTRACTOR'S EQUIPMENT, MATERIALS, AND PERSONNEL, AND SHALL PROVIDE ADEQUATE BARRIERS TO PREVENT RISK TO OTHERS FROM THE CONTRACTOR'S ACTIVITIES.
9. WHERE ACTUAL DIMENSIONS AND SIZES ARE PROVIDED IN THE DRAWINGS, THEY SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALL SCALE DRAWINGS.
10. THE CONTRACTOR SHALL SEQUENCE HIS OPERATIONS SUCH THAT ORANGE MESH SAFETY FENCING IS PROVIDED ALONG ALL AREAS BEING TRENCHED AND NO TRENCH IS LEFT OPEN AT THE END OF THE WORK DAY.
11. NO CONNECTIONS FOR THE PURPOSE OF OBTAINING WATER SUPPLY DURING CONSTRUCTION SHALL BE MADE TO ANY FIRE HYDRANT OR BLOW-OFF STRUCTURE WITH OUT FIRST OBTAINING A CONSTRUCTION METER FROM THE FLORIDA KEYS AQUEDUCT AUTHORITY.
12. IF UNSATISFACTORY MATERIAL FOR ADEQUATE BEARING IS ENCOUNTERED AT THE NORMAL SUBGRADE, THE UNSATISFACTORY MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE FOUNDATION STABILIZATION MATERIAL AS SPECIFIED. REMOVE SOILS AND OTHER MATERIALS THAT ARE NOT SUITABLE MATERIALS FOR TRENCH BOTTOM TO SIX INCHES UNDER PIPE, MINIMUM.
  - REMOVE WET, YIELDING, OR MUCKY SOILS. REMOVE THE FOLLOWING SOILS:
    - a. TYPE CH AND TYPE MH CLASS IV SOILS.
    - b. ALL CLASS V SOILS.
  - REMOVE ORGANIC MATERIAL INCLUDING ROOTS, MULCH, OR OTHER VEGETABLE MATTER, WHICH IN THE OPINION OF THE ENGINEER, WILL RESULT IN UNSATISFACTORY FOUNDATION CONDITIONS.
  - REMOVE SOILS CONTAINING COBBLES, BOULDERS OR STONES LARGER THAN ONE AND ONE-HALF INCHES (1-1/2") IN DIAMETER.
  - REMOVE LEDGE ROCK AND HARDPAN. REMOVE ROCK AND HARDPAN TO PROVIDE BEDDING WIDTH 24 INCHES WIDER THAN PIPE.
  - REMOVE SOILS CONTAINING RUBBISH, TRASH, OR OTHER FOREIGN MATERIALS.
13. IN GENERAL, EXISTING STRUCTURES AND UTILITIES ARE NOTED AS EXISTING AND/OR SHOWN IN LIGHT LINE WEIGHT. NEW CONSTRUCTION IS SHOWN IN HEAVY LINE WEIGHT.
14. ALL FIELD LAYOUT AND SURVEYING FOR CONSTRUCTION OF THIS PROJECT SHALL BE PROVIDED BY THE CONTRACTOR AT HIS EXPENSE, UNDER THE DIRECTION OF A FLORIDA LICENSED PROFESSIONAL LAND SURVEYOR.

CIVIL ENGINEERING • REGULATORY PERMITTING • CONSTRUCTION MANAGEMENT

PEREZ ENGINEERING & DEVELOPMENT, INC.

ALLEN E. PEREZ, P.E.  
Florida P.E. No. 51468  
March 27, 2017

ORIGINAL: \_\_\_\_\_

REVISIONS:

1	2/27/17	RD-RET
2		
3		
4		
5		
6		

NEW BUS DROPP/PICKUP

HORACE O'BRYANT SCHOOL  
1105 LEON STREET  
KEY WEST, FL 33040

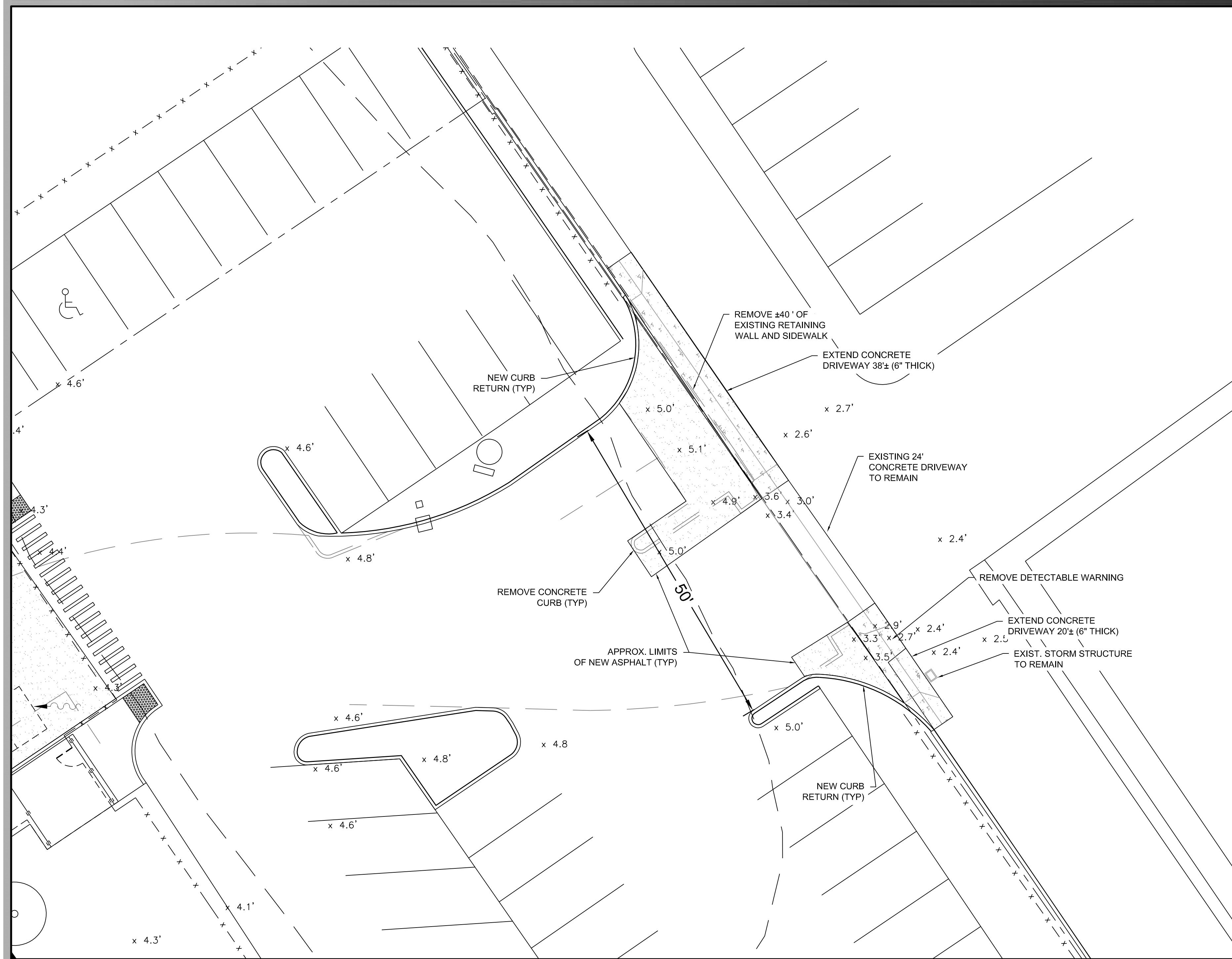
JOB NO. 161066  
DRAWN AEP  
DESIGNED AEP  
CHECKED AEP  
QC  
SHEET

DRAINAGE PLAN

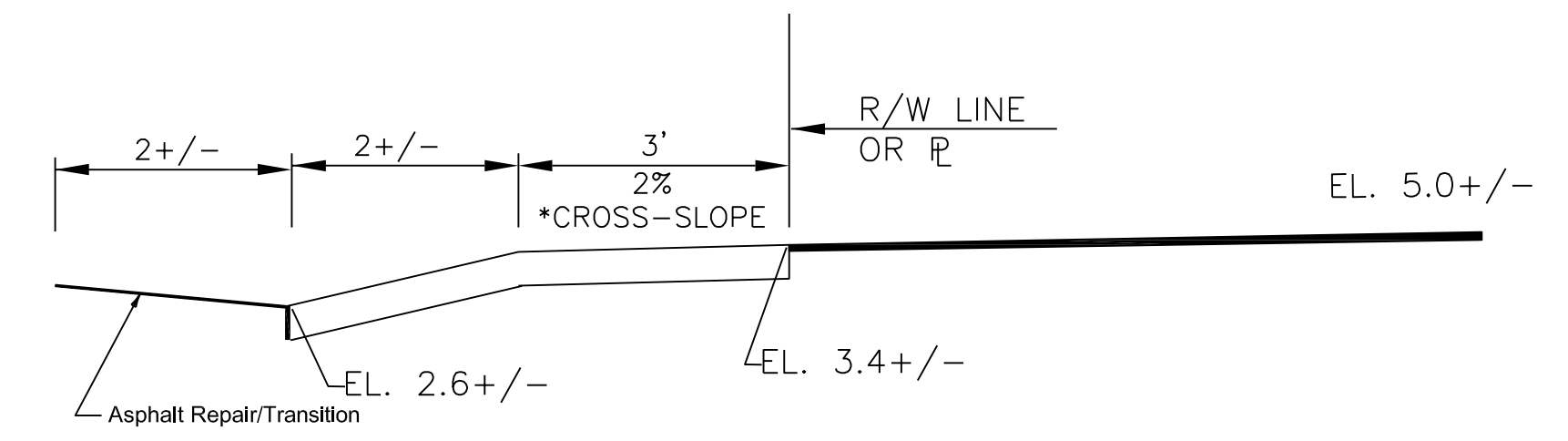
C-1

KEY WEST OFFICE  
1010 EAST KENNEDY DRIVE, SUITE 201  
TEL: (305) 293-6440 FAX: (305) 296-0243

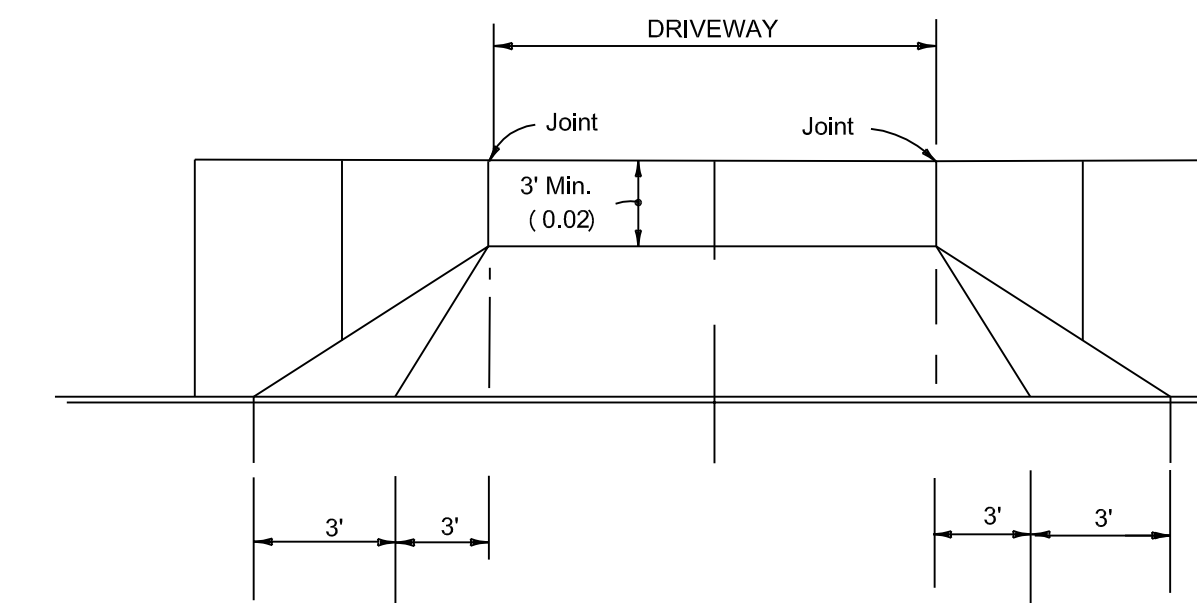




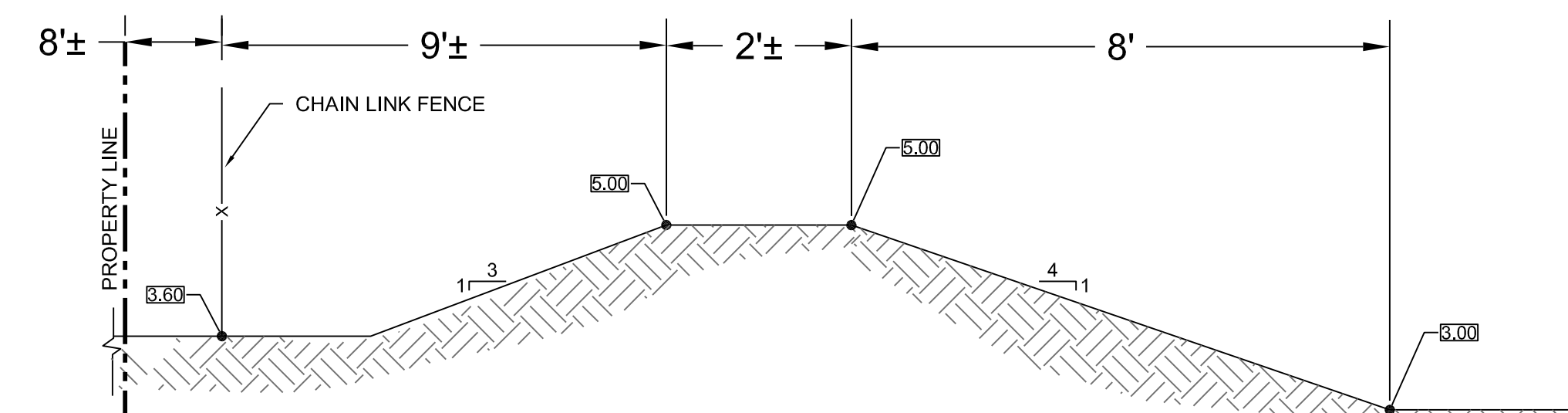
SCALE 1"=10'  
 BAR IS TWO INCHES ON ORIGINAL DRAWINGS IF  
 NOT TWO INCHES ON THIS SHEET ADJUST  
 SCALES ACCORDINGLY



1 6" Concrete Driveway Profile  
 NTS



2 Concrete Driveway Detail  
 NTS



A Cross Section  
 C-1 NOT TO SCALE

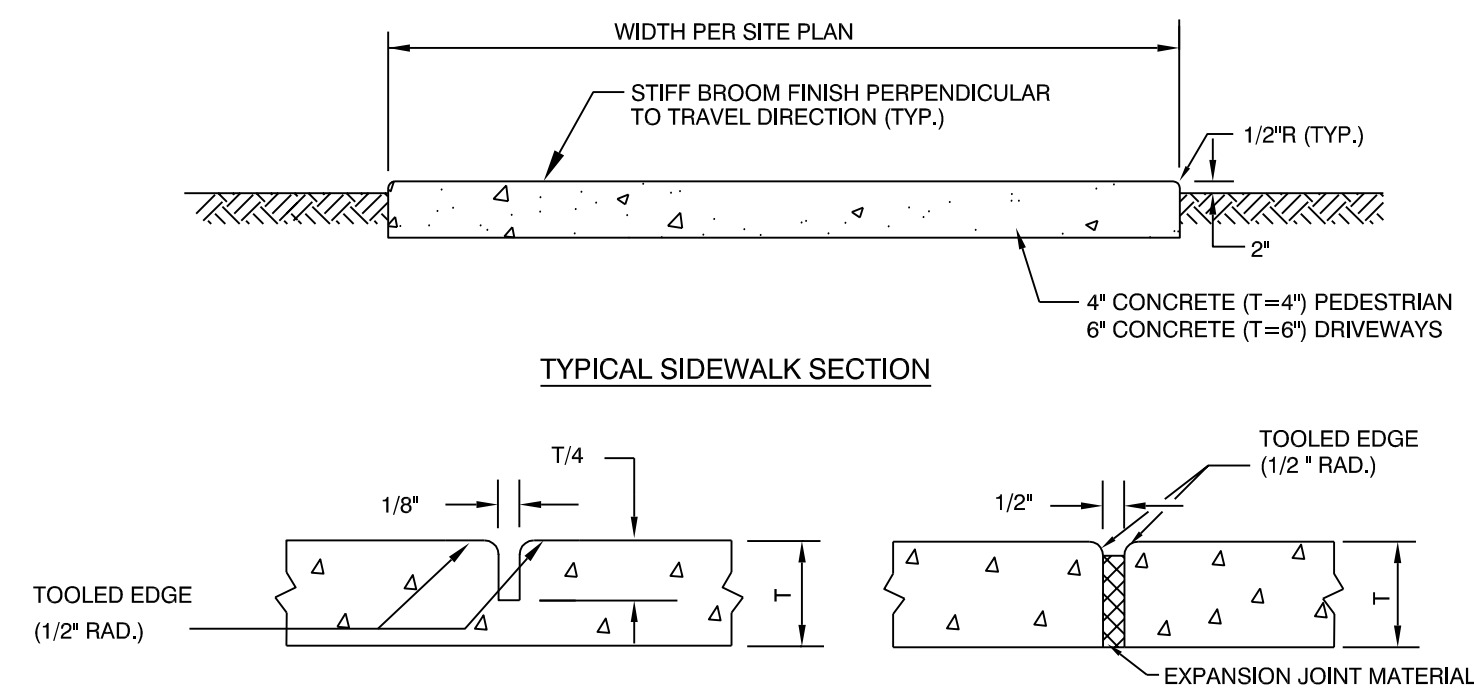
REVISIONS:	ORIGINAL:
1 2/27/17 AEP/RET	
2	
3	
4	
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6	

NEW BUS DROPP/PICKUP

HORACE O'BRYANT SCHOOL  
 1105 LEON STREET  
 KEY WEST, FL 33040

JOB NO.	161066
DRAWN	AEP
DESIGNED	AEP
CHECKED	AEP
QC	
SHEET	





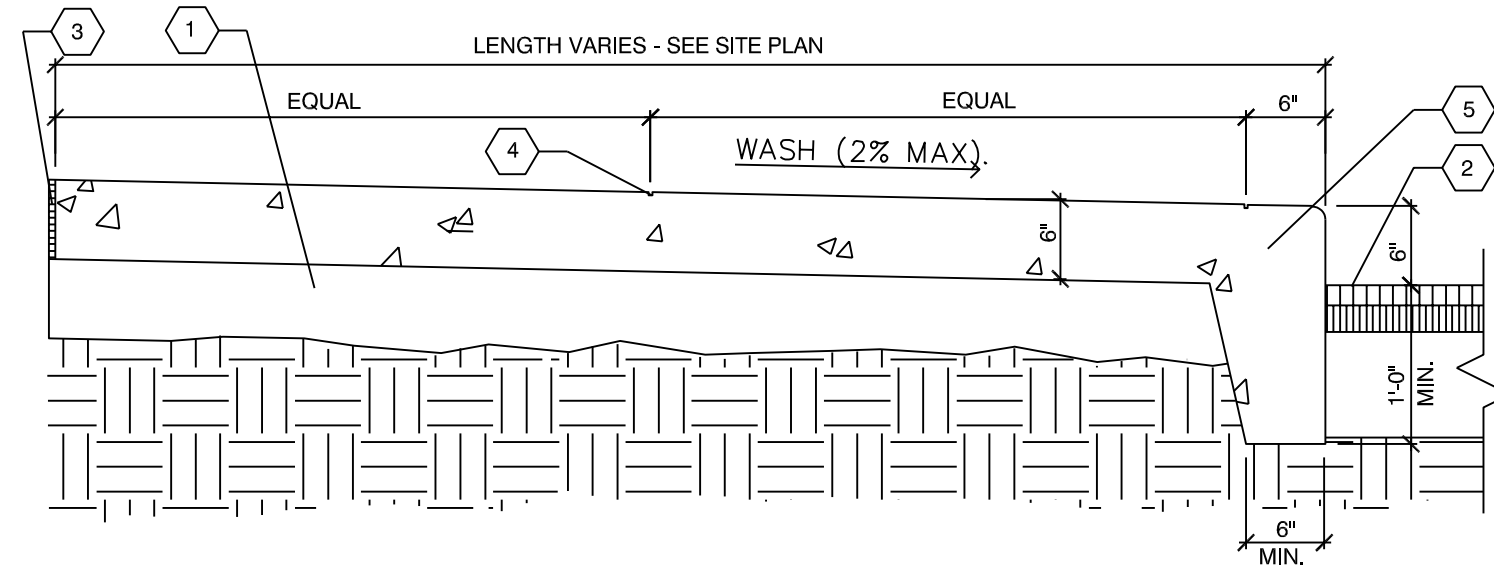
CONTRACTION JOINT

EXPANSION JOINT

NOTES:

1. PROVIDE EXPANSION JOINTS WHERE NEW SIDEWALKS ABUT STRUCTURES AND CONTRACTION JOINTS AT INTERVALS EQUAL TO SIDEWALK WIDTH.
2. REPLACE CONCRETE SIDEWALKS AT SCORED JOINTS TO AVOID A PATCHED APPEARANCE. PROVIDE 2-INCH LEVELING COURSE BENEATH NEW SIDEWALK.
3. NOTES FOR 6" SIDEWALK (LOCATIONS WHERE THERE IS VEHICULAR TRAFFIC)
  - BASE MATERIAL: 3" CRUSHED LIMEROCK WITH A MIN. LBR OF 100 COMPACTED TO ASTM D-1557
  - SUB-BASE: 12" STABILIZED WITH A MIN. LBR 40 COMPACTED TO 95% OF THE MODIFIED PROCTOR MAX. DRY DENSITY.
4. PROVIDE 3000 PSI CONCRETE MINIMUM & FIBERMESH ADDITIVE.

1 Typical Sidewalk Detail  
NTS

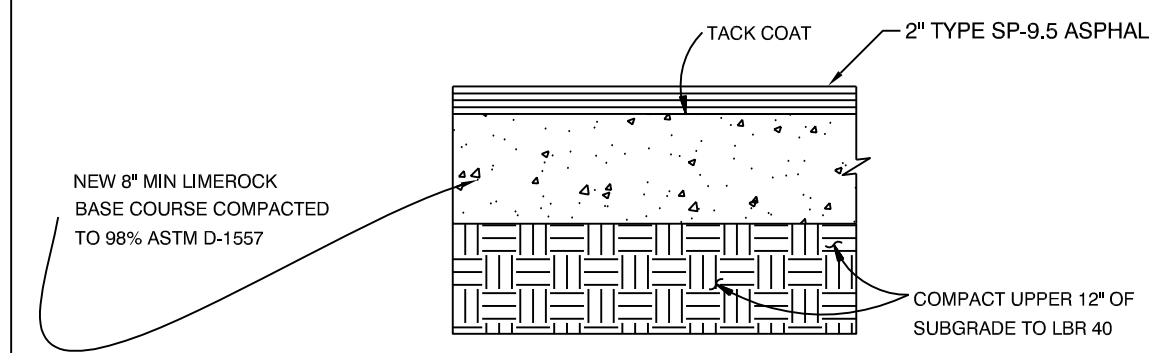


KEYED NOTES

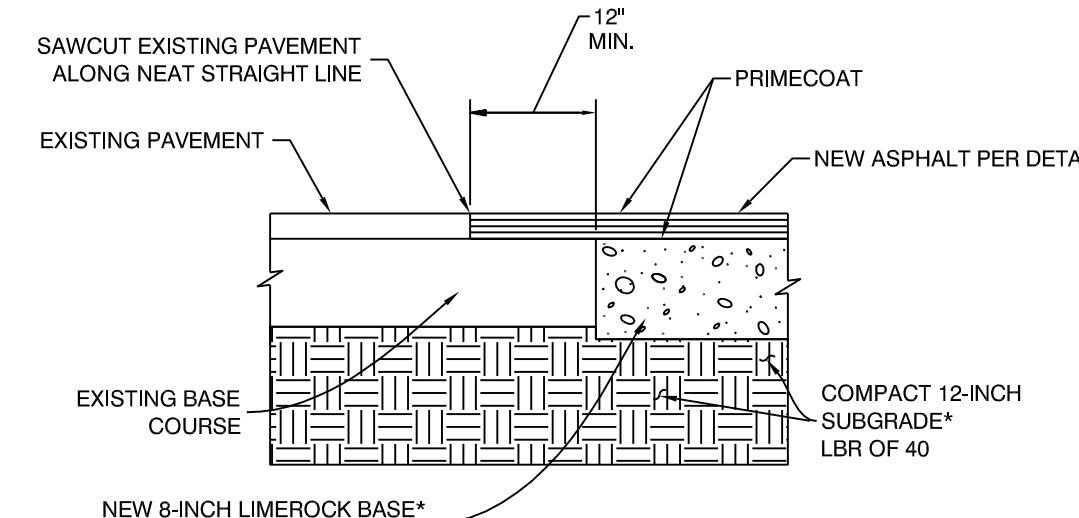
- 1 4" COMPACTED AGGREGATE BASE
- 2 PAVEMENT
- 3 COMPRESSIBLE FILLER (3/4" MAXIMUM, CUT BACK AND PROVIDE SEALANT, TYP., AT ALL JOINTS.
- 4 1/2" TOOLED JOINT
- 5 FIBERMESH THROUGHOUT

2 Typical Thickened Edge Sidewalk  
NTS

NOTE:  
THICKENED EDGE SIDEWALK DETAIL IS PROVIDED AS AN ALTERNATE TO INSTALLING A CURB AND ADJACENT SIDEWALK

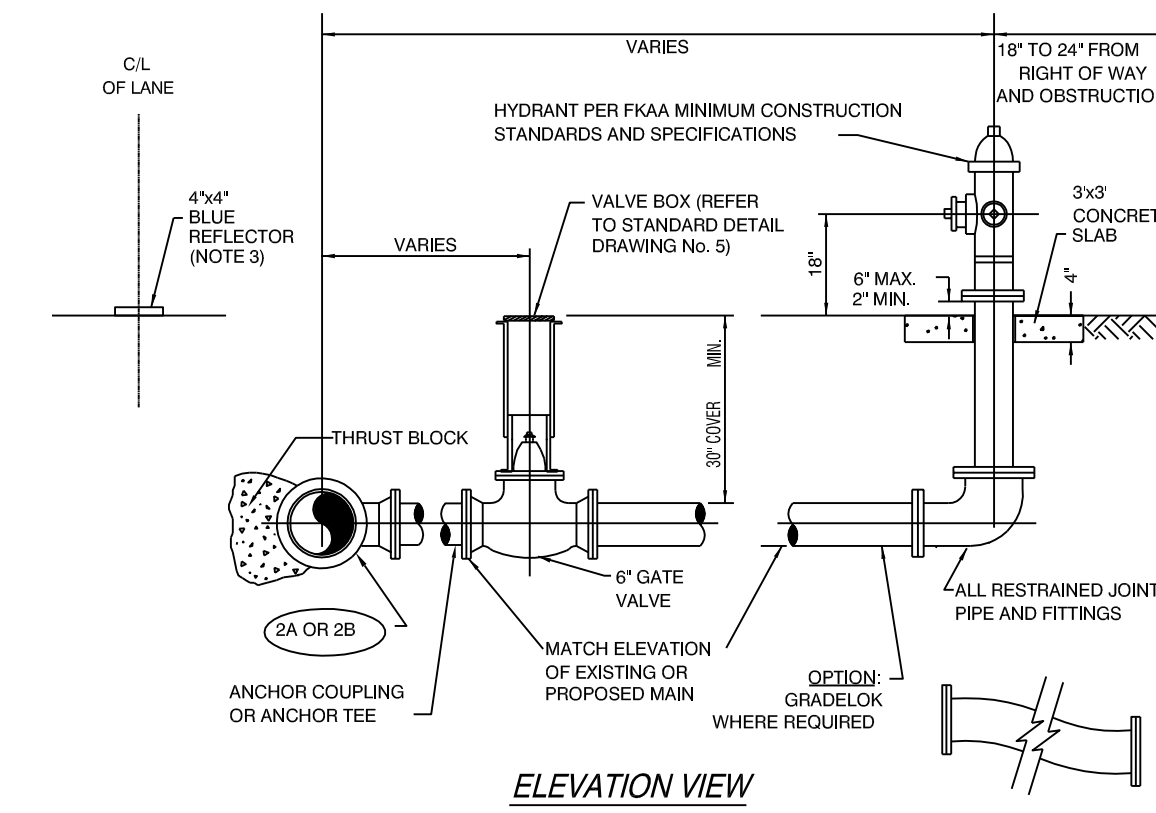


3 Asphalt Pavement  
NTS



4 Pavement Connection to Existing Surface  
NTS

\*NOTE:  
ALL MATERIALS SHALL BE PER FDOT STANDARD SPECIFICATIONS.



ELEVATION VIEW

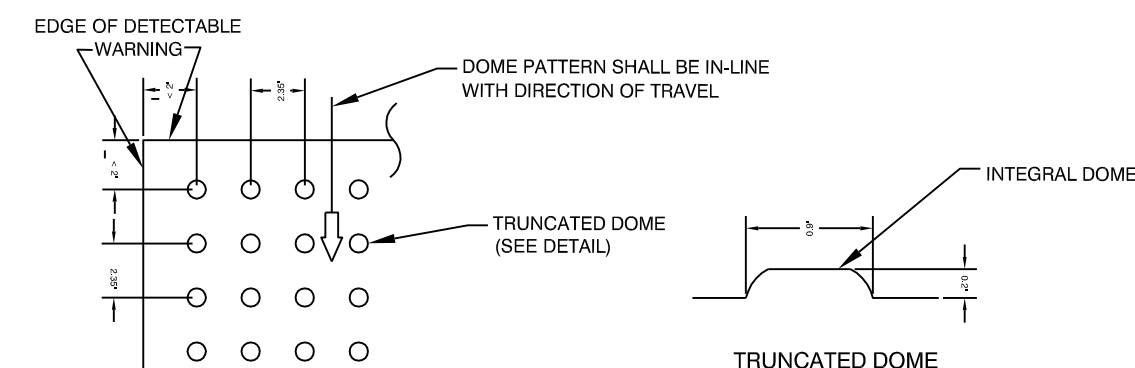
GRADELOK

TYPICAL PLAN VIEWS

NOTES:

1. CONCRETE SLAB MAY BE ELIMINATED IN AREAS WHERE SIDEWALK IS INSTALLED PRIOR TO FINAL ACCEPTANCE OF THE HYDRANT.
- 2A. TAPPING SLEEVE AND VALVE USED WHEN EXISTING LINE IS HOT.
- 2B. TEE-USED WHEN LINE IS NEW.
3. INSTALL 2-SIDED BLUE REFLECTORS WITH BUTYL PADS, INSTALL IN THE CENTER OF THE LANE ON THE SIDE OF HYDRANT INSTALLATION.

5 Hydrant Assembly Installation  
NTS



PLAN VIEW

ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH AND DEPTH OF THE RAMP.

CURB RAMP DETECTABLE WARNING  
NTS

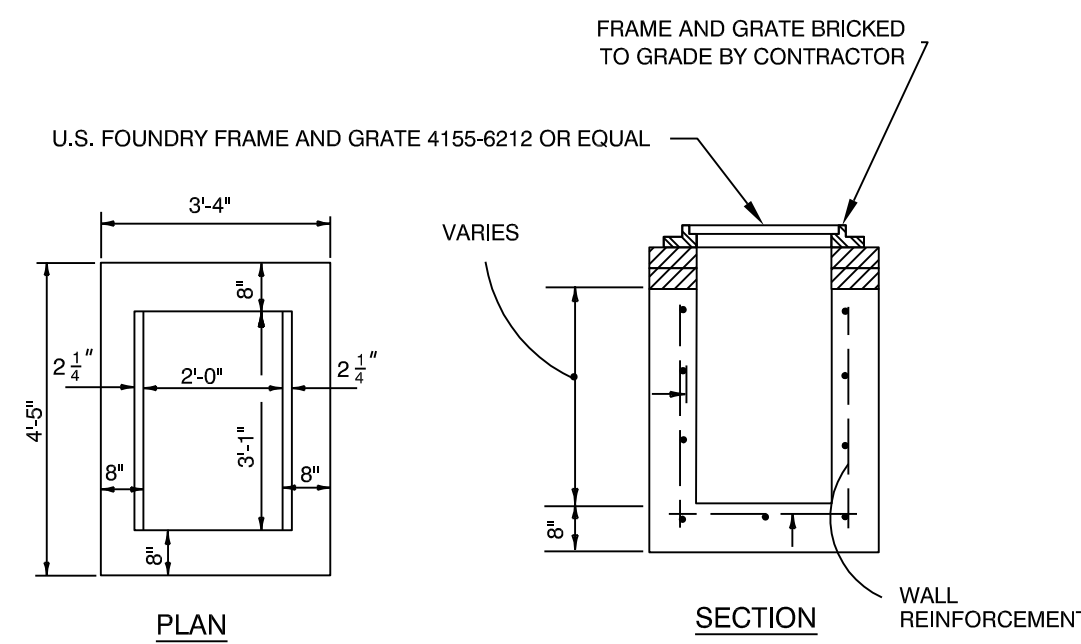
GENERAL NOTE:

1. CURB RAMP RUNNING SLOPES AT UNRESTRAINED SITES SHALL NOT BE STEEPER THAN 1:12 AND CROSS SLOPE SHALL BE 0.02 OR FLATTER, TRANSITION SLOPES SHALL NOT BE STEEPER THAN 1:12.
2. CURB RAMP DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24" FROM THE BACK OF CURB. DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED BY TEXTURING A TRUNCATED DOME PATTERN IN CONFORMANCE WITH U.S. DEPARTMENT OF JUSTICE ADA STANDARDS FOR ACCESSIBLE DESIGN, A.D.A. ACCESSIBILITY GUIDELINES, SECTION 4.29.2, TRANSITION SLOPES ARE NOT TO HAVE DETECTABLE WARNINGS.
3. UNLESS OTHERWISE CALLED OUT IN THE PLANS, THE RAMP DETECTABLE WARNING SURFACE SHALL BE COLORED IN ACCORDANCE WITH FDOT SECTION 551 OF THE STANDARD SPECIFICATIONS.

DESIGN NOTE:

1. THE COLOR REQUIREMENT IN GENERAL NOTE 3 IS TO PROVIDE A DARK-ON-LIGHT VISUAL CONTRAST BETWEEN THE DETECTABLE WARNING SURFACE AND THE ADJACENT WALKING SURFACE. WHERE ADJACENT WALKING SURFACES ARE COLORED OR ARE CONSTRUCTED WITH MATERIALS OTHER THAN STANDARD CLASS I PORTLAND CEMENT CONCRETE IN ACCORDANCE WITH SECTION 552 OF THE STANDARD SPECIFICATIONS, THE PLANS MUST PROVIDE FOR DETECTABLE WARNING SURFACE COLOR OR MATERIALS THAT PROVIDE THE NECESSARY CONTRAST, EITHER DARK-ON-LIGHT OR LIGHT-ON-DARK.

6 ADA Detectable Warning & General ADA Notes  
NTS



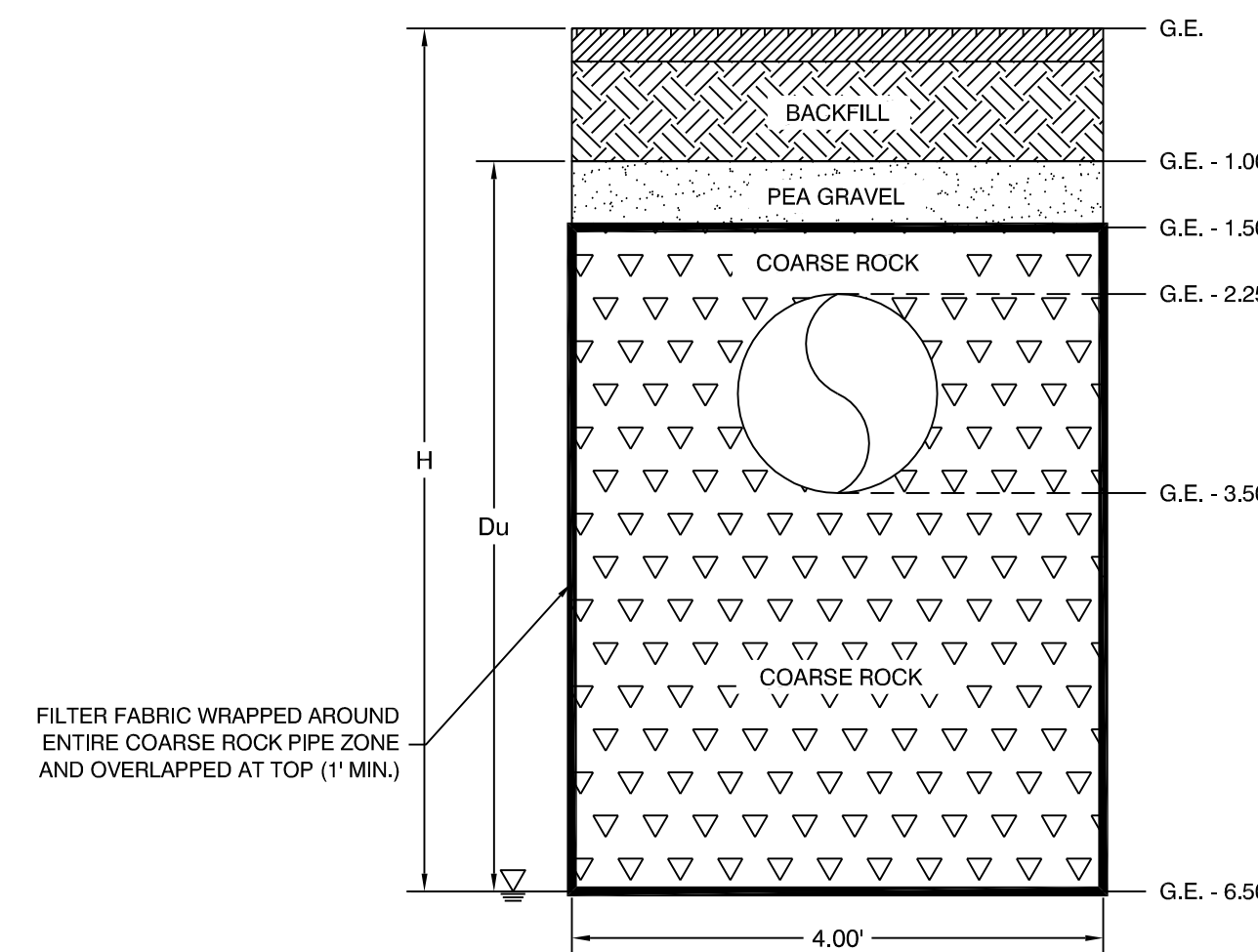
PLAN

SECTION

NOTES:

1. CONCRETE SHALL BE 4000 PSI AT 28 DAYS, TYPE II CEMENT
2. ALL REINFORCEMENT MAY BE WELDED WIRE AS PER ASTM C-478, #4 @ 12" O.C.E.W.
3. FRAME AND GRATE BRICKED TO GRADE BY CONTRACTOR.
4. BOTTOM INLETS SHALL BE USP PRODUCT NO. 3-3 OR EQUAL.
5. STRUCTURES TO BE SET ON COARSE AGGREGATE BEDDING

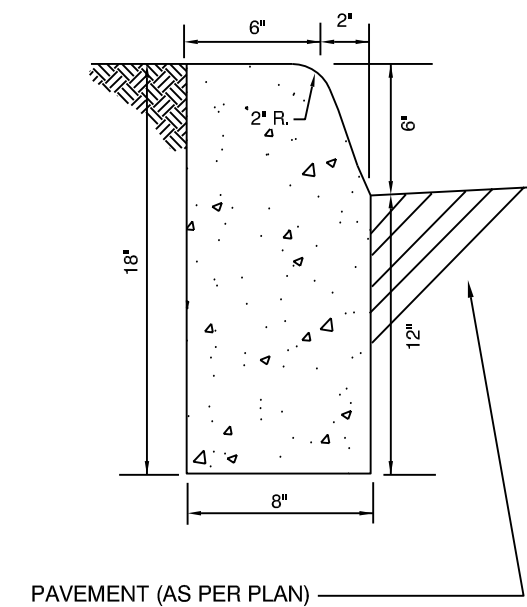
7 Type "C" Ditch Bottom Inlet  
NTS



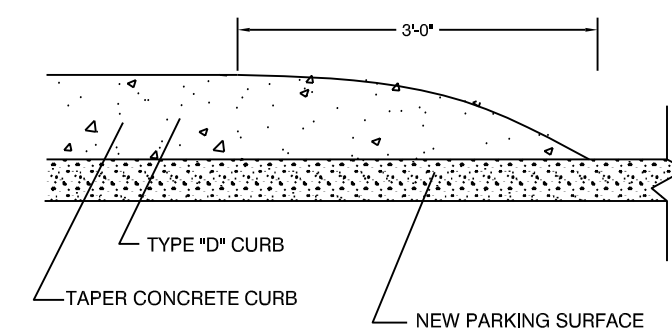
Notes:

1. Pipe Material: ADS HDPE Perforated Pipe or Equal.
2. Coarse Rock Material: FDOT 15" Stone (1/2" Radius Min.)

8 Exfiltration Trench Detail  
NTS



9 FDOT Type "D" Curb  
NTS



10 Tapered Curb Detail  
NTS

CIVIL ENGINEERING • REGULATORY PERMITTING • CONSTRUCTION MANAGEMENT

**PEREZ ENGINEERING & DEVELOPMENT, INC.**

KEY WEST OFFICE  
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KEY WEST, FL 33040 • FAX: (305) 296-0243  
TEL: (305) 293-9440

ALLEN E. PEREZ, P.E.  
Florida P.E. NO. 51468  
March 27, 2017  
CERTIFICATE OF AUTHORIZATION NO. 8579

NEW BUS DROFF/PICKUP

HORACE O'BRYANT SCHOOL  
1105 LEON STREET  
KEY WEST, FL 33040

CIVIL DETAILS

REVISIONS:	DATE	BY	DESCRIPTION
1	3/27/17	BD	SET
2			
3			
4			
5			
6			

ORIGINAL: \_\_\_\_\_

JOB NO. 161066  
DRAWN AEP  
DESIGNED AEP  
CHECKED AEP  
QC \_\_\_\_\_  
SHEET

C-3