Rehabilitate Netherlands Carillion to Improve Safety and Visitor Experience

Project Overview

The Netherlands Carillon was a gift from the people of the Netherlands to the people of the United States in gratitude for aid during and after World War II. The monument symbolizes friendship between the two countries, as well as a common allegiance to the principles of freedom, justice, and democracy. The carillon originally housed 49 bells each carrying an emblem and verse representing a region and group within Dutch society.

The Netherlands Carillon is a historic property listed on the National Register of Historic Places as part of Arlington Ridge Park, which is part of the National Park Service George Washington Memorial Parkway. The carillon is situated on a ridge overlooking the Potomac River and Washington, D.C. and provides expansive views of the National Mall, West Potomac Park, and Arlington National Cemetery. The site's adjacency to the U.S. Marine Corps War Memorial to the north and Arlington National Cemetery immediately to the south, draws 1.2 million visitors annually, including recreational visitors from Rosslyn's residential areas.

The original gift of the bells was conceived in 1950. In 1952, on a trip to the United States, Queen Juliana of the Netherlands presented President Truman with a small silver bell in a ceremony held in Meridian Hill Park. The three leading Dutch foundries, Van Bergen, B. Eijsbouts, and Petit & Fritsen, began casting the bells that year and the site within the George Washington Memorial Parkway was selected. The bells were shipped to the United States in 1954 and hung in a temporary structure on the polo grounds in West Potomac Park while funds were being raised in the Netherlands for a permanent tower.

Figure 1. Netherlands Carillion viewed from the southeast

Constructed in 1960 by Dutch architect Joost W.C. Boks, the 127-foot open steel structure of the Netherlands Carillon is one of the first, if not the first, modernist monument constructed in the Capitol region, and reflects an immediate postwar rejection from the classicism favored by fascist regimes. The open steel structure is centrally located within a square plaza bordered by a low wall. The entrance to the plaza is flanked by two bronze lion sculptures designed by Boks and carved by Dutch sculptor Paul Koning. A tulip library, also a gift from the Dutch, was planted in a circular bed immediately to the east of the plaza in 1964. The tree-planting plan for the Park was completed as part of the 1960's National Capital Parks Planting Plan. A small successional woodland to the southwest forms the backdrop to the carillon.

Additional landscaped beds in the form of musical notes were planted in 1967 and 1972 as part of Lady Bird Johnson's Beautification Program, with a variety of annuals and perennials, in addition to tulips.

Figure 2 Floral Library

In the early 1970's the carillon was repainted a gray blue color. In 1983 less than twenty-five years after the carillon's construction, a major renovation was undertaken to address deterioration of the steel panels. Again, the tower was repainted the light gray blue color, neither time with the approval of the Commission of Fine Arts. In 1994, in anticipation of the 50th Anniversary of the liberation of the Netherlands from the Nazis, another restoration campaign was completed through a cooperative agreement with the Netherlands Chamber of Commerce.

This campaign also included the addition of a 50th bell symbolizing liberation. The dark bronze color of the tower was restored with the approval of the Commission of the Fine Arts.

The carillon currently features automated chimes and concerts during the week and weekly live concerts during the summer months. While the carillon's plaza is open to public visitation, the tower's steel cladding is showing severe signs of deterioration and all public access into the tower structure is closed. The National Park Service and the Royal Netherlands Embassy will work in tandem to restore and upgrade the Netherlands Carillon. The NPS will fund the restoration of the structure and upgrades to accessibility. The Embassy plans to restore and retune the bells, upgrade the operating system, and add three bells to make the monument a Grand Carillon.

A conditions assessment and series of probes conducted in 2017 revealed that the structural frame of the carillon to be in sound condition, with minor areas of surface rust and section loss, which was found in areas of inadequate drainage. The deterioration of the steel panels, however, will require complete removal to treat both the front and back sides of panels, as well as surface treatments to the galvanized steel frame. In addition, the structural analysis of the additional loading of the new bells indicates that additional structural reinforcement of the eight central column bases will be required.

Treatment of the panels will require the complete removal of existing coatings and treatment with a metalizing spray prior to treatment with a high-performance coating system. The hazardous materials survey indicated that several samples have lead paint. The paint analysis did not find evidence of the original bronze paint finish referenced in the documentation which supports that all of the paint was stripped prior to

repainting in the 1970s. Some metal panels will require replacement, especially horizontal ceiling panels where water has been stagnating and panels in contact with floor plates.

Horizontal checkered plate flooring surfaces of the tower will require replacement and detailing in order to pitch water away from the internal structure. Roofing surfaces will be treated with continuous liquid applied roofing membranes to prevent water infiltration through joints. Additional vents and weep holes will be added to increase the passive ventilation within the structural frame. Removal of some non-original elements which collect water will be required.

The Clavier Room is intended to provide an environment that is conducive to the preservation of the wood console and to the carilloneur's comfort and playing ability. The current structure, with its large windows, un-insulated steel walls, roof and floor, and non-functional vents serves this purpose poorly. Design changes to glazing, shading and HVAC systems will be required to improve the functionality of the room and the preservation of the new console.

Figure 3. Bronze lions by Dutch sculptor Paul Koning.

The bronze lion sculptures require permanent mounting to the low perimeter wall and general cleaning and waxing. The low basalt wall is in fair condition but requires crack repairs, replacement in kind of a few stones, and replacement of joint sealant. The slate plaza has many broken and loose pavers which require replacement and resetting for safe and level access.

The Schematic Design phase is nearing completion and will be followed by the procurement of a Design-Build contractor in the Fall of 2018. Construction is anticipated to begin in February 2020 and be completed in February 2021. Prior to 2020, the bells will be hoisted out of the tower and shipped to the Netherlands for retuning and restoration work.

Outreach and Coordination

Scoping and Section 106 Consultation was initiated December 4th, 2017 with Consulting Parties meeting conducted on January 9, 2018, which included the Virginia Department of Historic Resources, the District of Columbia Historic Preservation office, the Royal Netherlands Embassy, Arlington National Cemetery, Ed Nassor (carillioneur), and National Capital Planning Commission. The U.S. Commission of Fine Arts reviewed the project in February with no objections.

Public scoping has not been conducted to date. The Royal Netherlands Embassy is planning for a public outreach and celebration in May to coincide with Dutch Liberation Day. When the bells return to the United States, there is anticipated to be a period of public exhibit before the bells are hoisted back into the rehabilitated steel tower.

Environmental and Historical Considerations

A Categorical Exclusion will be drafted by the National Park Service after the completion of the Assessment of Effect documentation is complete (currently in draft form) and the Virginia Department of Historic Resources has completed their review in the summer of 2018.

The Netherlands Carillon is a contributing feature to the Arlington Ridge Historic District (#09000688) and the Arlington Ridge Park Cultural Landscape. The bell tower, its plaza, and statuary are all featured in the NPS List of Classified Structures.

Figure 4 Aerial view of the Netherlands Carillon from the east during setup for U.S. Marine Corps marathon.

Historic Resource

The proposed project will have a beneficial impact to the carillon, as degrading structural elements will be addressed and replaced in-kind. The rehabilitation of the tower will require some modification to historic fabric. Structural modifications to the tower will not be visible. Minor modifications to the original design to improve drainage will be undertaken so as not to impact the perceptible visual appearance. New railings and improvements to the stair will allow public visitation to the observation decks to be reinstituted.

Cultural Landscape

There are no anticipated impacts to the plaza, statuary, or surrounding landscape. The proposed project will have a beneficial impact to the landscape, as the aesthetics of the Carillon will be greatly improved following the rehabilitation. During construction, existing trees and floral libraries will be protected.

Archaeology

No ground disturbance activities are anticipated as part of the project outside of the immediate plaza area. The only anticipated disturbance would be in previously impacted plaza in the event a ground loop wire and rods are installed around the perimeter of the carillon for a proposed lightning protection system.

Although there are no documented archaeological resources in the immediate area, resources could be impacted by compacted soils from

cranes or heavy machinery. Construction access and staging will require protection of paths and lawn areas to avoid compaction of soils.

Environment

As part of the project there will be limited areas of abatement for asbestos containing materials and lead paint (Most of the lead paint that is present will be removed from the panels off site.) There are no anticipated environmental impacts to adjacent waters, wetlands, or natural areas. There will be no change to the flooding impact or risk of the site.

Stormwater Management

There will be no increase in impervious surfaces which would impact storm management. The existing plaza has three existing drains which will not be changed. The sloping of decks and roof surfaces to direct water away from the core of the steel structure (1/8" over1'-0") should not impact water runoff from the structure.

Soundscape

The addition of three new bells and retuning of the bells is anticipated to have a positive impact on the sound of the instrument, as the new bells will complete the chromatic capability of the instrument, filling in half tones between parts of the scale that were missing. The volume generated from the carillon after rehabilitation will not be greater than the condition that currently exists.

While noise is anticipated during construction activities this will be temporary and work hour restrictions can be put in place.

Lighting

The project includes upgrades to egress and emergency lighting within the stair core and replacement of lighting on Observation Decks where it currently exists.

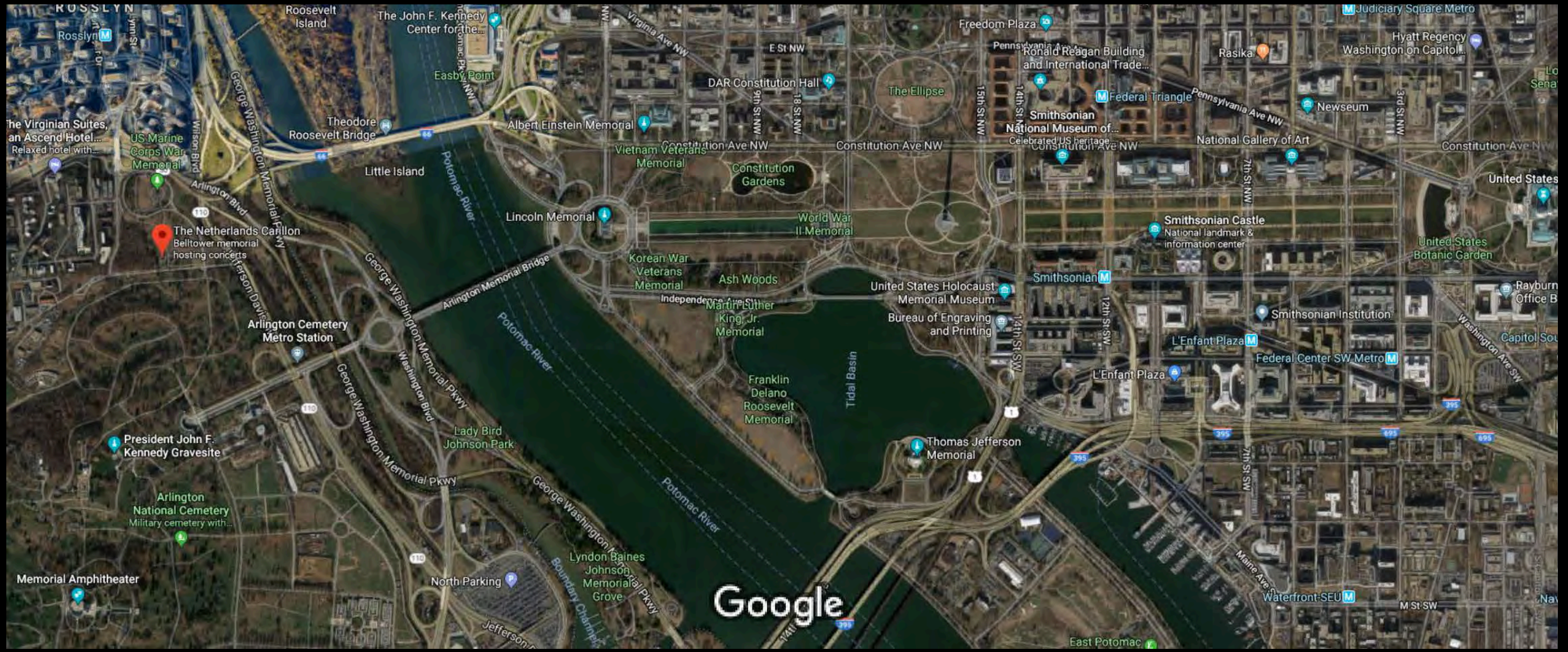
Plans for improvements to site and accent lighting is in development through a separate partnership agreement with the Embassy and Phillips Lighting, and is not currently part of the project at this stage.

REHABILITATE NETHERLANDS CARILLON TO IMPROVE SAFETY & VISITOR EXPERIENCE

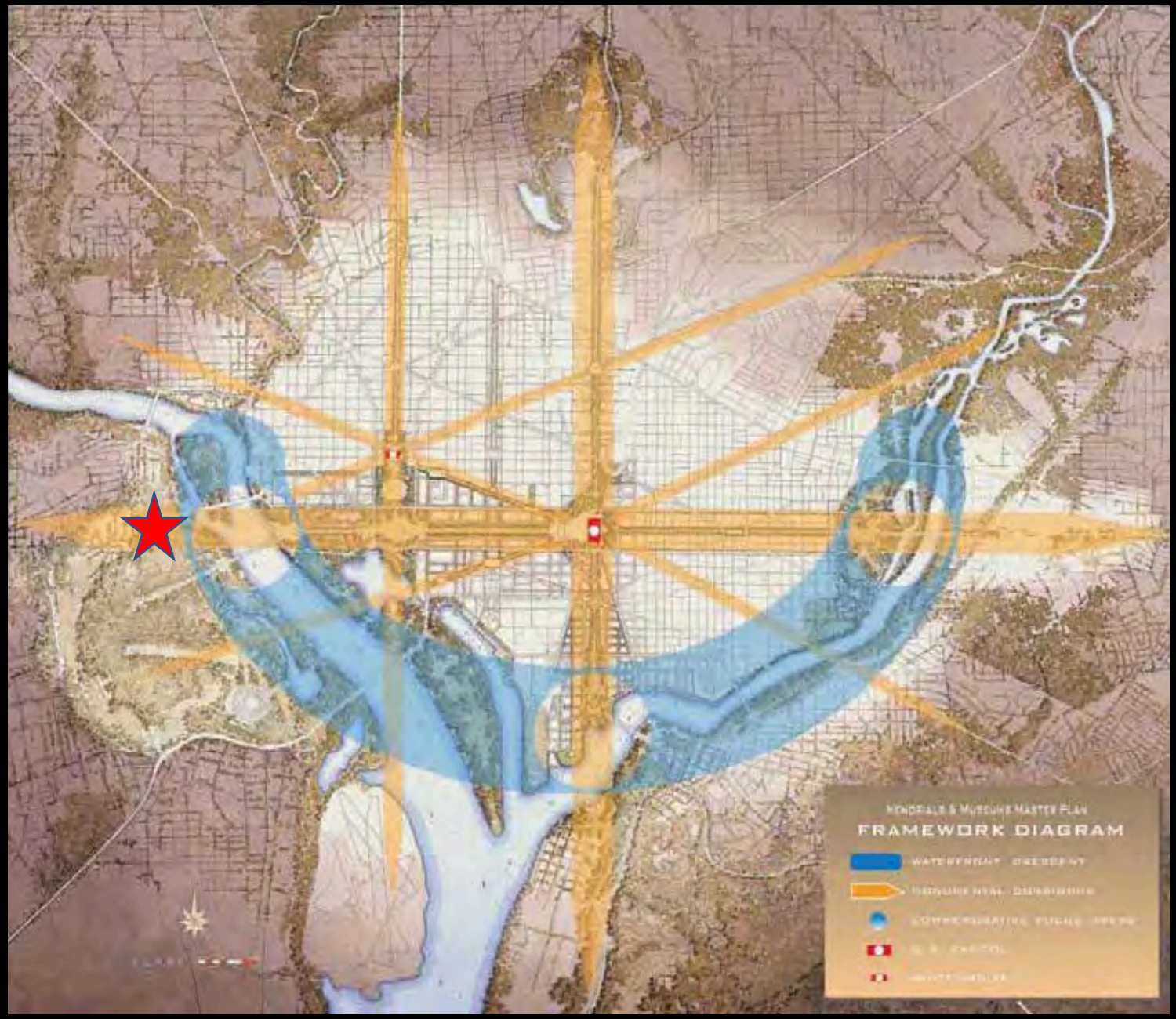
National Park Service
George Washington Memorial Parkway
Arlington Ridge Park

GWMP 214371

NATIONAL CAPITAL PLANNING COMMISSION
MAY 3, 2018

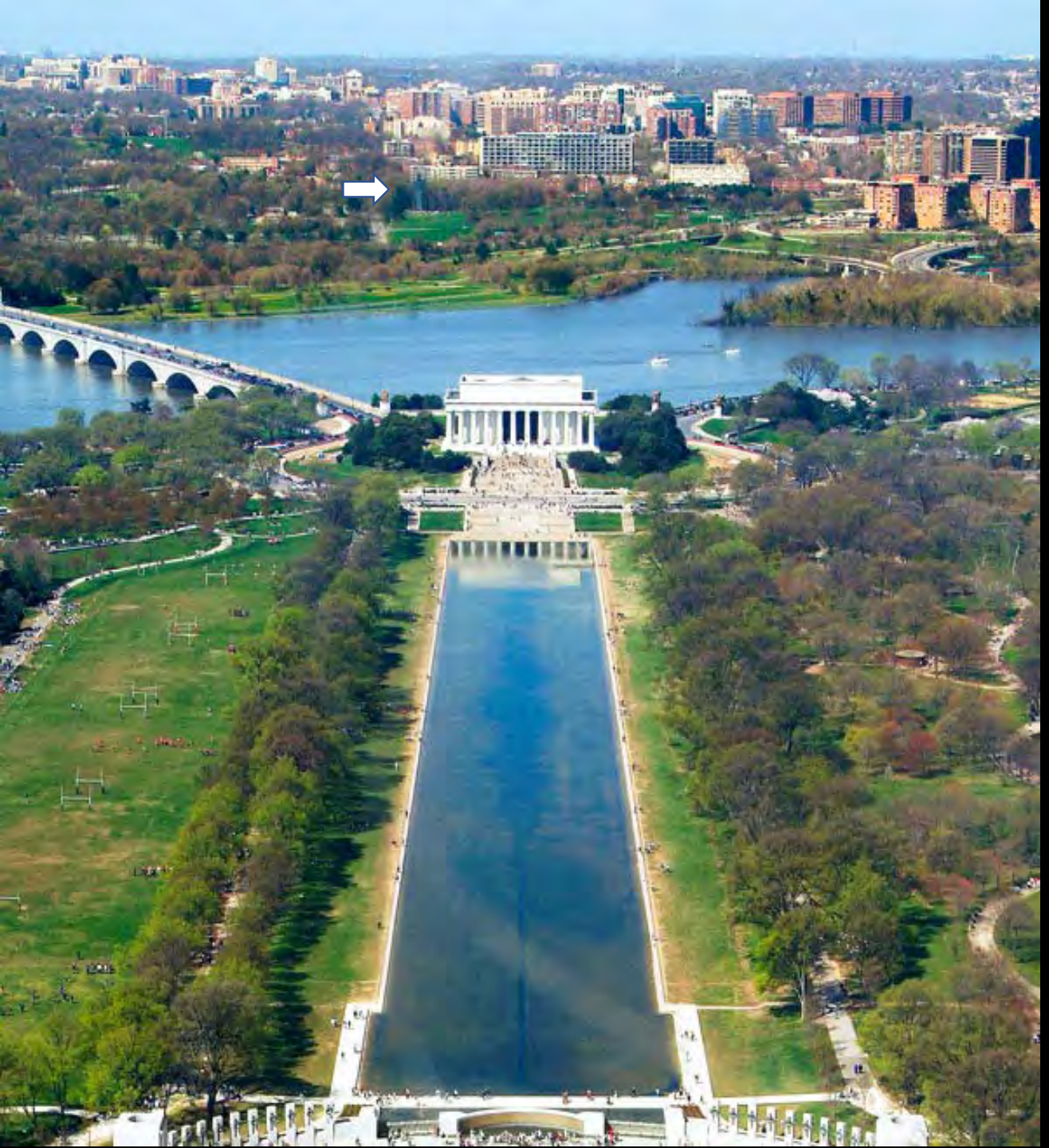


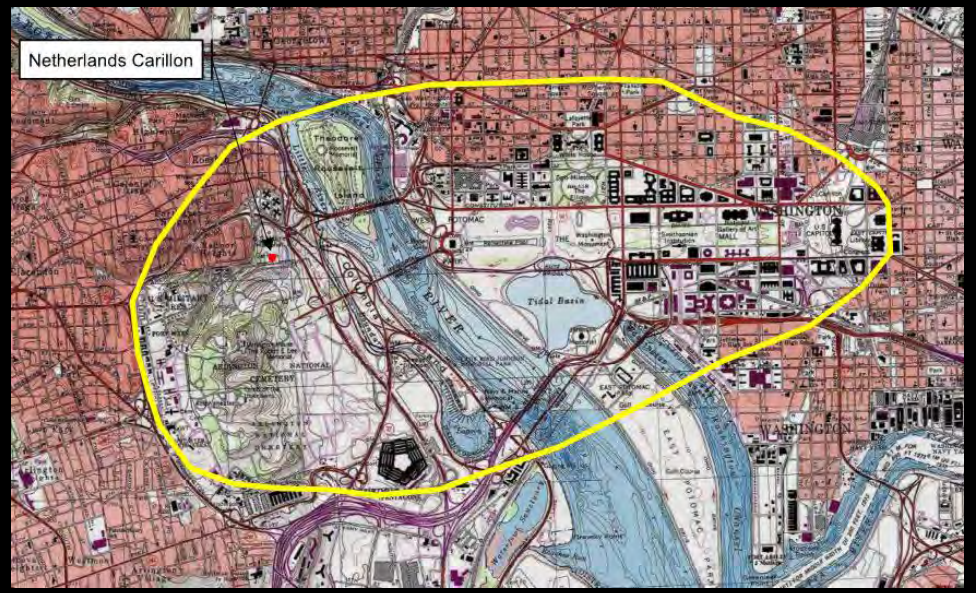
ARLINGTON RIDGE PARK VICINITY



MONUMENTAL CORRIDOR

AREA OF POTENTIAL EFFECT (INDIRECT)





BACKLIT VIEW AT DUSK

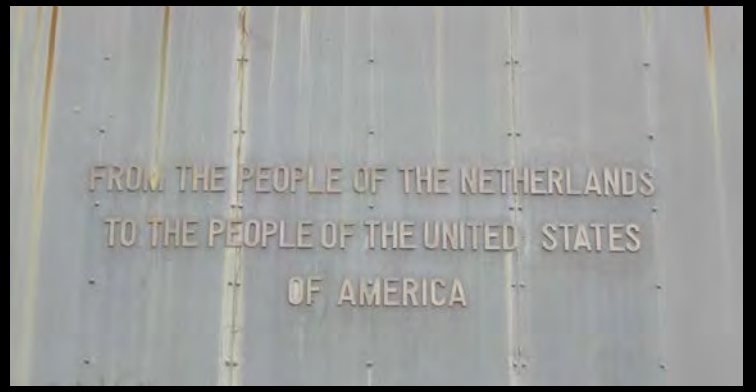
VIEWSHED LOOKING WEST FROM WASHINGTON MONUMENT

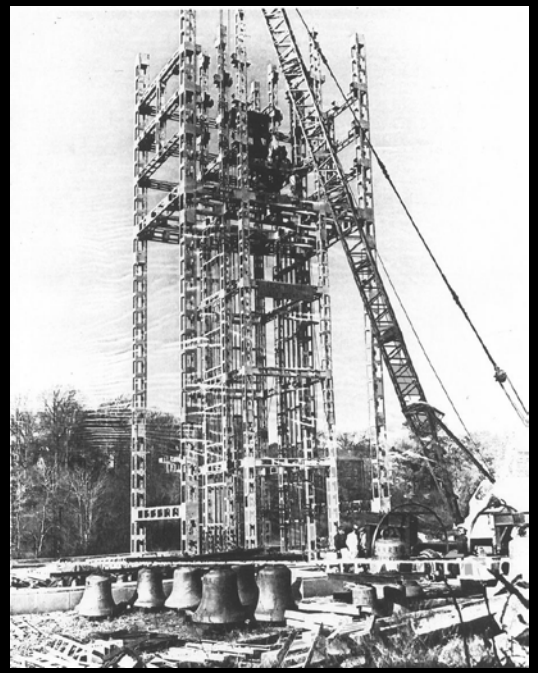
AREA OF POTENTIAL EFFECTS (DIRECT)

PROJECT SITE

- Historic Structure
- Cultural Landscape

HISTORY OF NETHERLANDS CARILLON

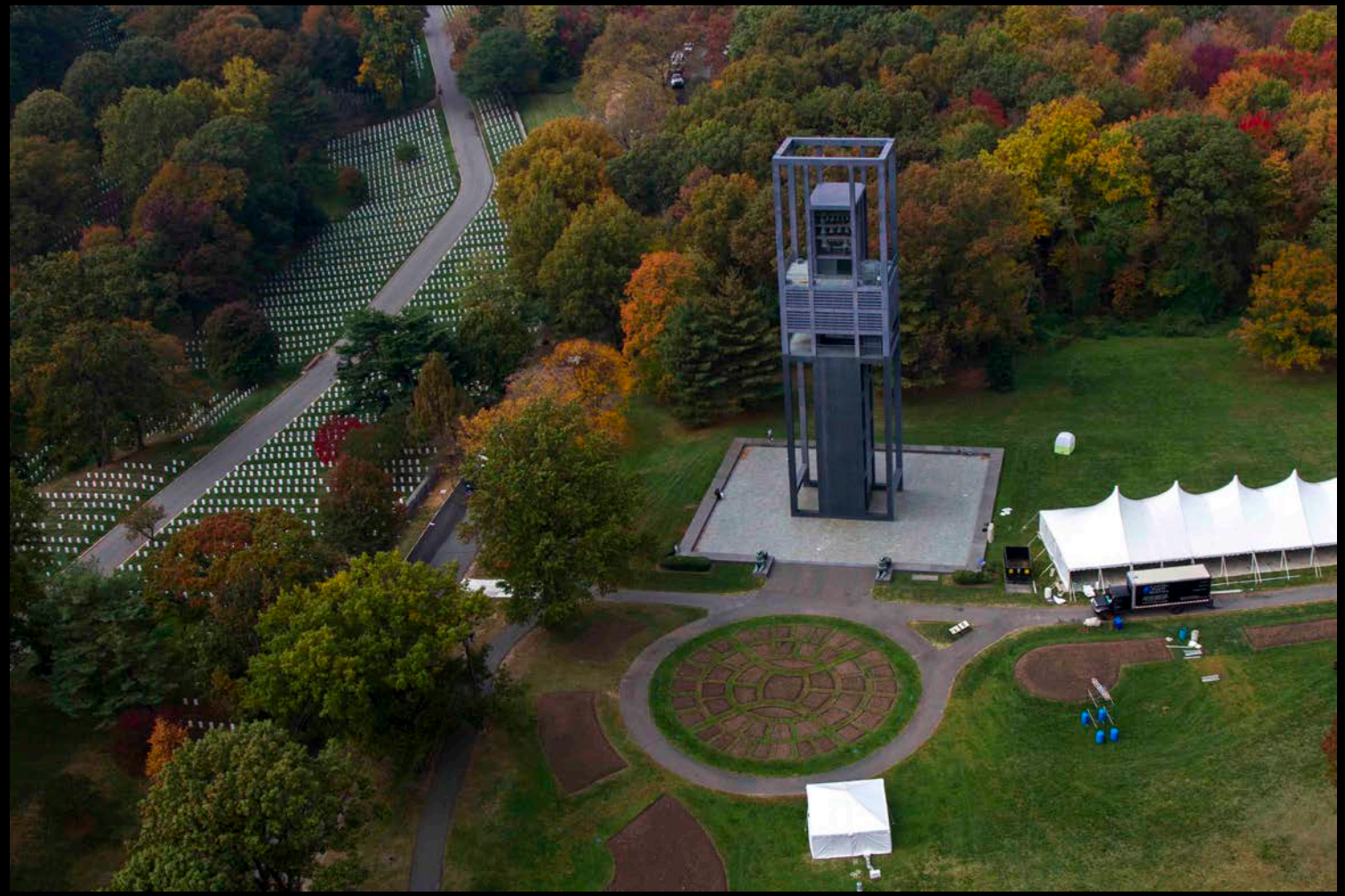


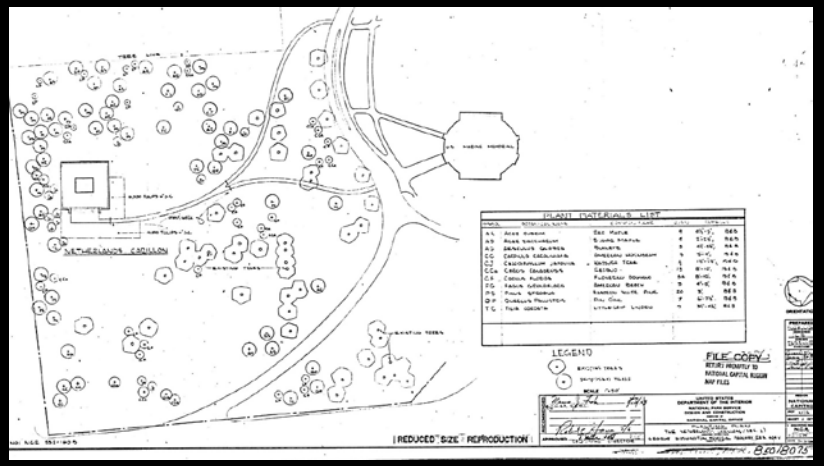


CULTURAL LANDSCAPE

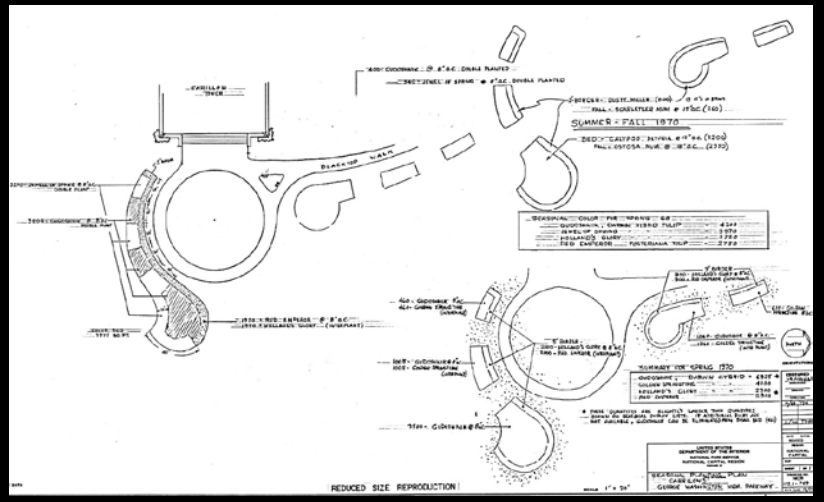
- Arlington Ridge Park
- Relationship to National Mall
- Relationship to Arlington National Cemetery
- National Capital Parks Planting Plan
- Floral and Tulip Library

CULTURAL LANDSCAPE





1962 TREE PLANTING PLAN



1967 PLANTING PLAN

PURPOSE STATEMENT

The purpose of the proposed action is to make repairs to the Carillon tower to address ongoing deterioration of the structure, allow continued use of the memorial and its function and elevation to a grand carillon, to provide safe public access to the tower observation decks and plaza, while maintaining the historical integrity and character of the memorial.

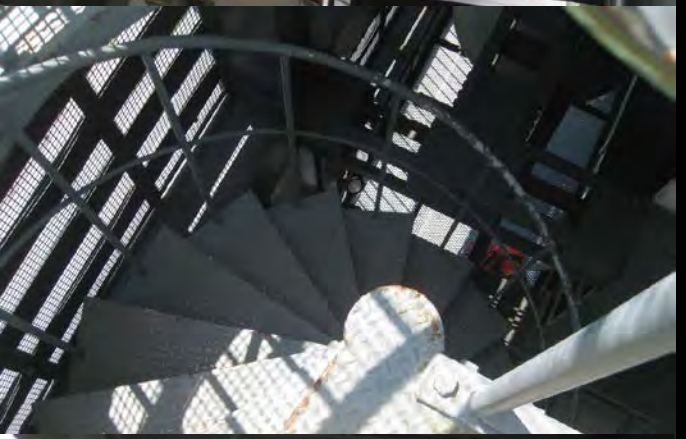
PROPOSED ACTION

- Rehabilitate tower to address ongoing deterioration of the cladding, structure, and floorplates
- Improve visitor access to Observation Decks with safe stairs, railings, and guardrails
- Address structural loads imposed by the addition of three new bells

PURPOSE AND NEED

- Address ongoing deterioration of the cladding, structure, ceilings, and floorplates from water infiltration and poor drainage

EXISTING CONDITIONS



PURPOSE AND NEED

Improve Visitor Access and Safety

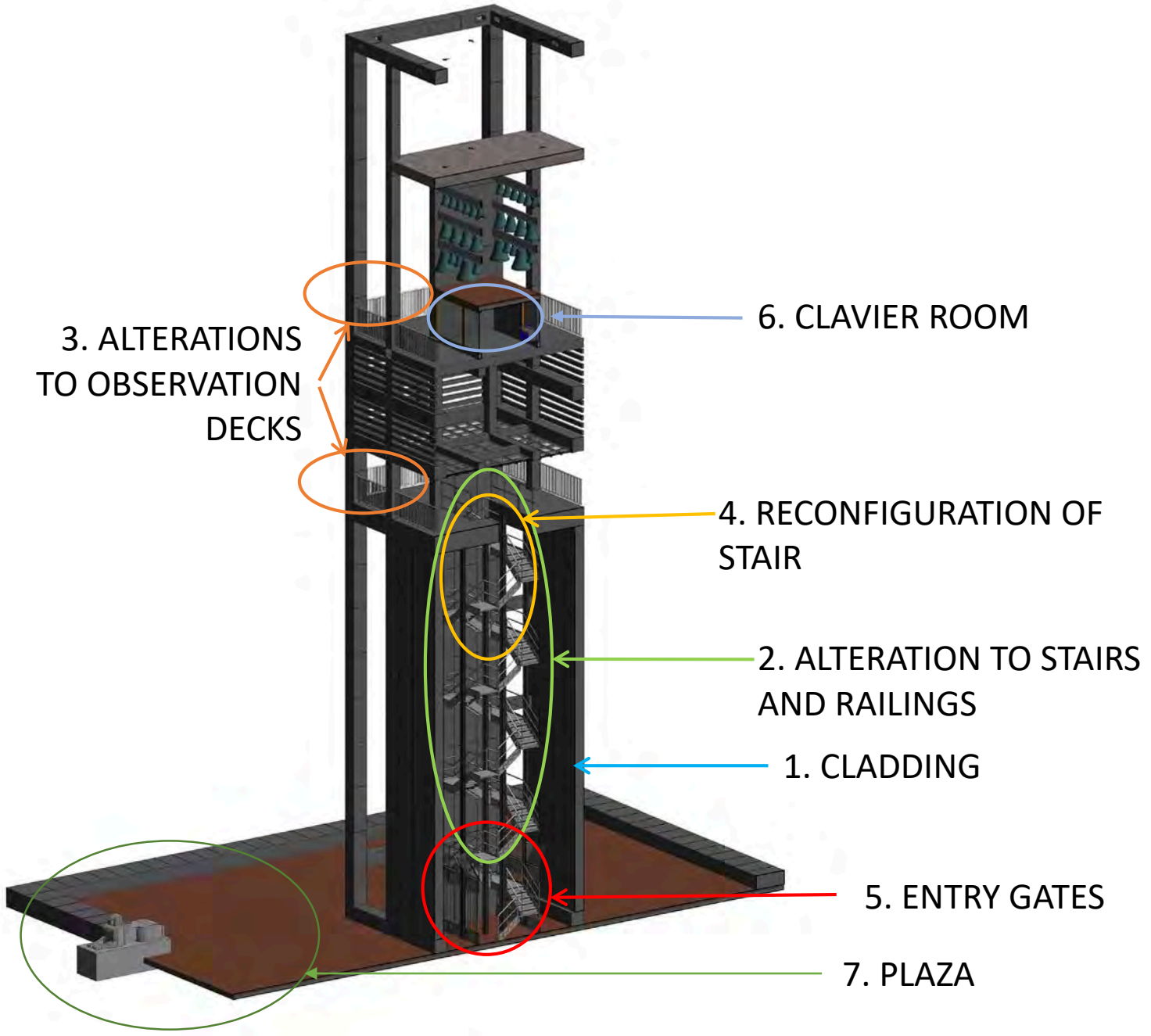
- Correct main stair deficiencies
  - Clear width at top four flights
  - Open risers
  - Lack of guards
  - Handrail openings
- Mitigate deficiencies at circular stair to Observation Deck 2
  - Handrail openings
  - Lack of guards
- Correct deficiencies at guards at Observation Decks 1 & 2
  - Picket spacing of 5 ½” exceeds 4” maximum

EXISTING CONDITIONS

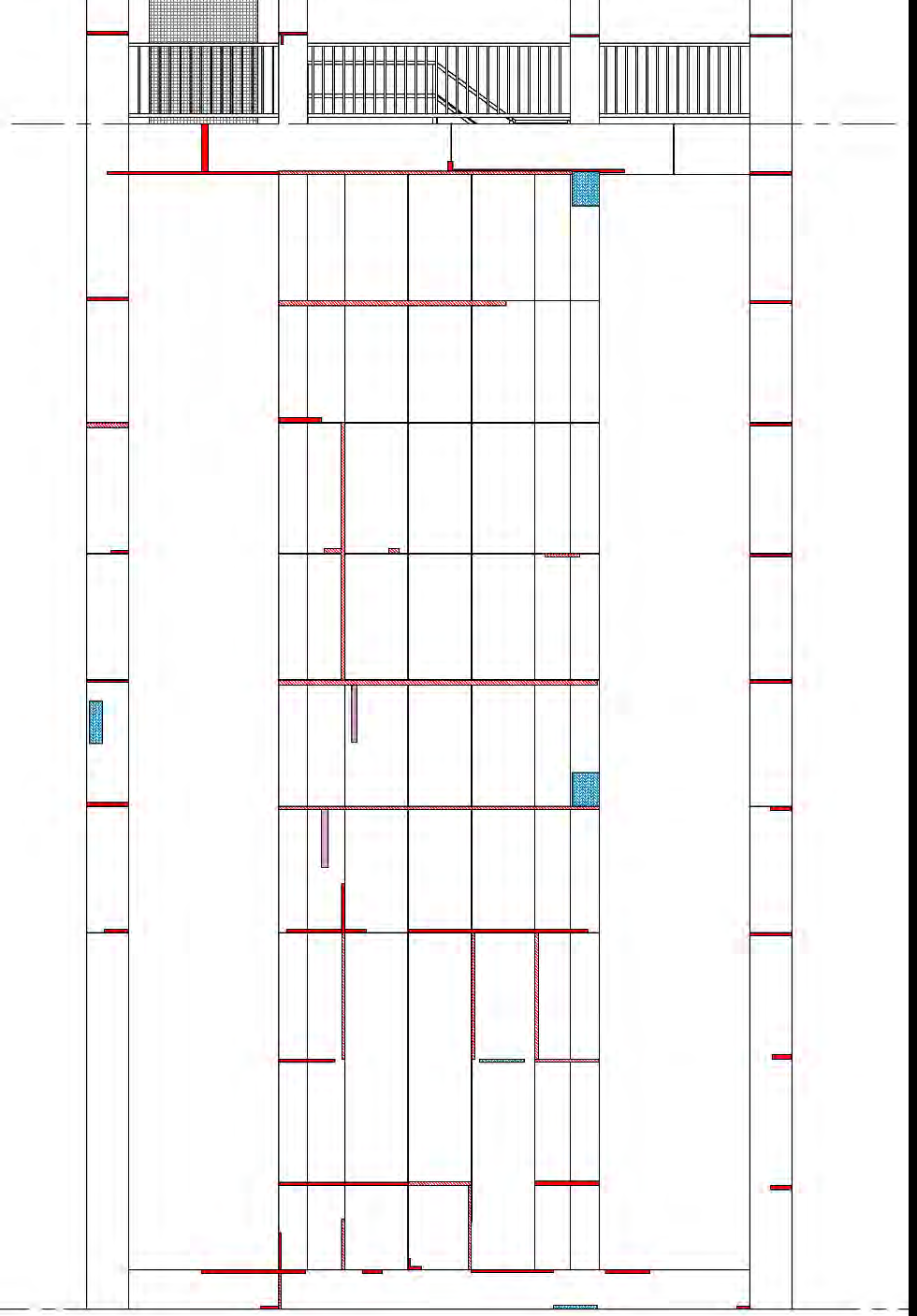
PURPOSE AND NEED

- Desire to raise structure to ‘grand carillon’ status with the addition of three new bells.
- Undertake structural improvements required to install new bells.

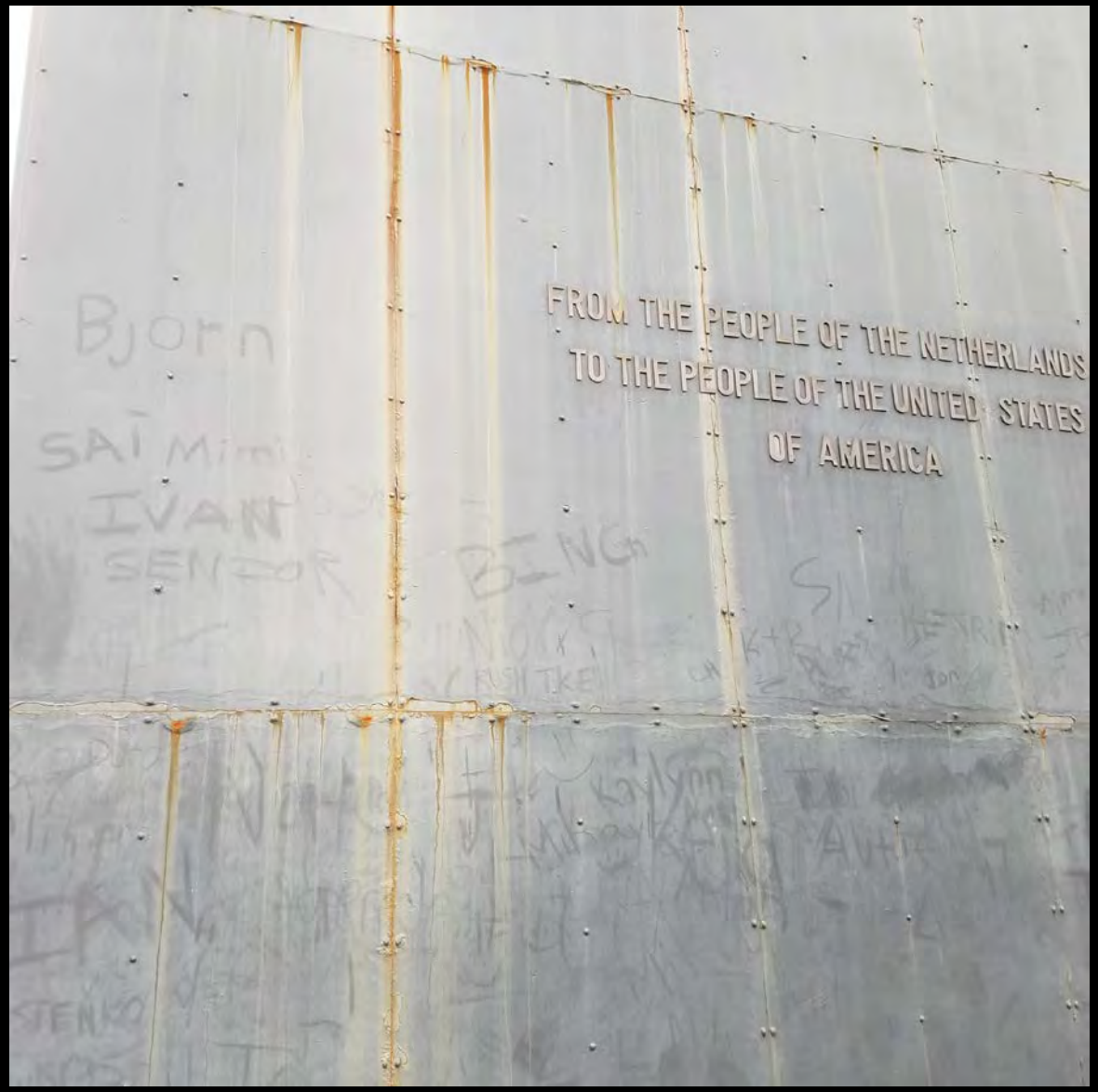
AREAS OF WORK



1. Restoration of structure and cladding
2. Alterations to stairs and railings
3. Alterations to observation decks
4. Reconfiguration of stair (Future work)
5. Security improvements (Future work)
6. Clavier Room improvements (Future work)
7. Plaza improvements (Future work)



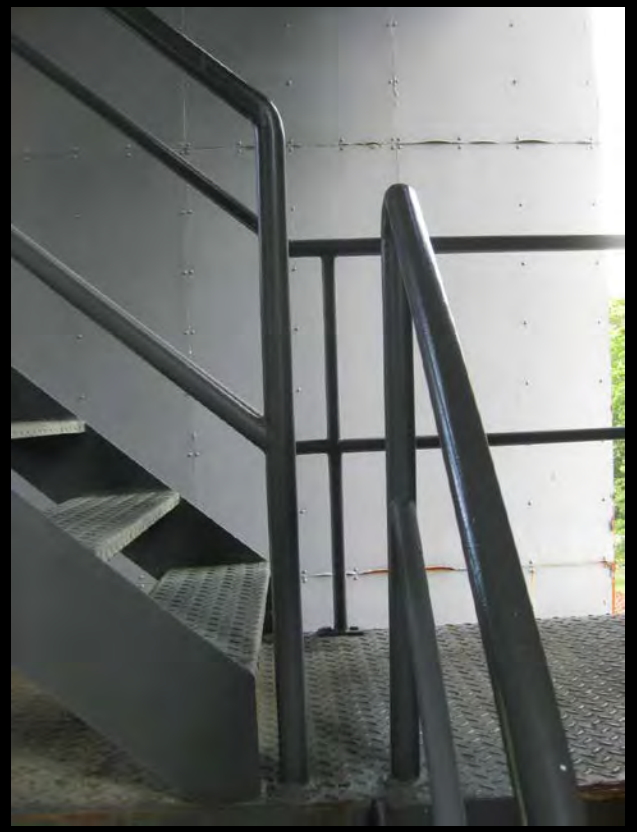
DETERIORATION OF CLADDING



CLADDING PANELS & STRUCTURE

- 100% removal to treat corrosion at both sides of panels
- Panels will be metalized, shop finished with high-performance coating, and reinstalled; replacement in-kind approximately 10%
- Tighten bolts and repair rust at structural frame

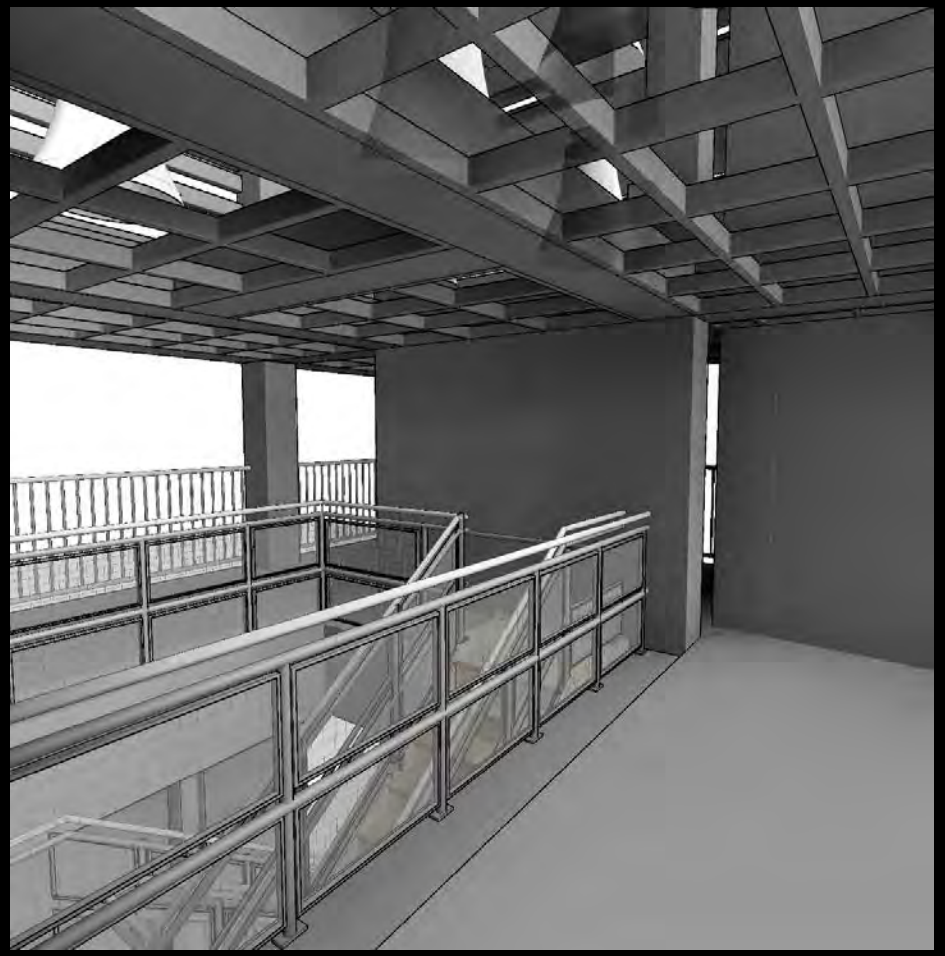
ALTERATIONS TO STAIRS AND RAILINGS



EXISTING CONDITIONS

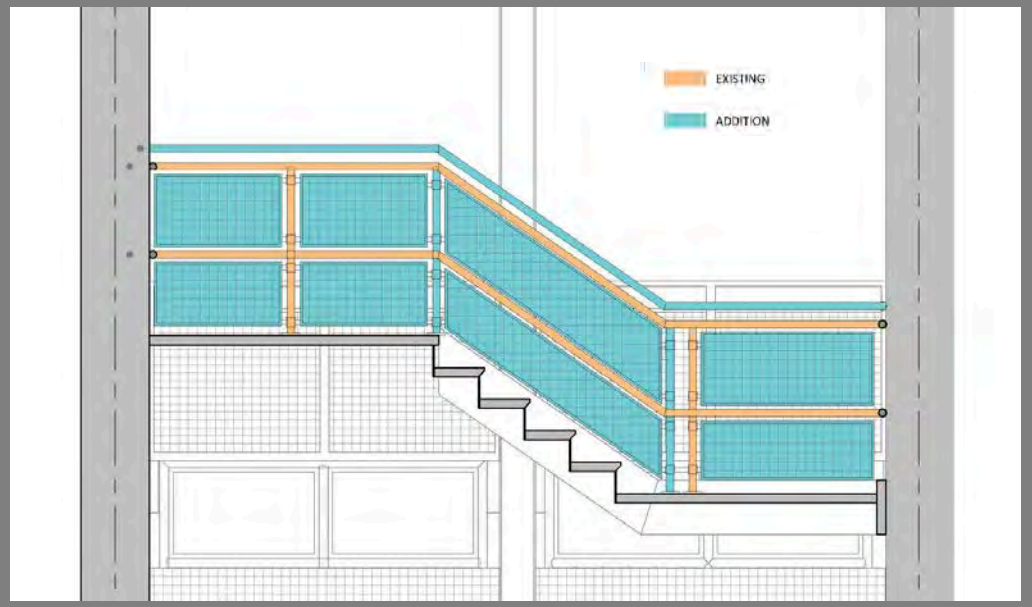
ALTERATIONS TO STAIRS AND RAILINGS

EXISTING STAIR CONFIGURATION AT OBSERVATION DECK 1

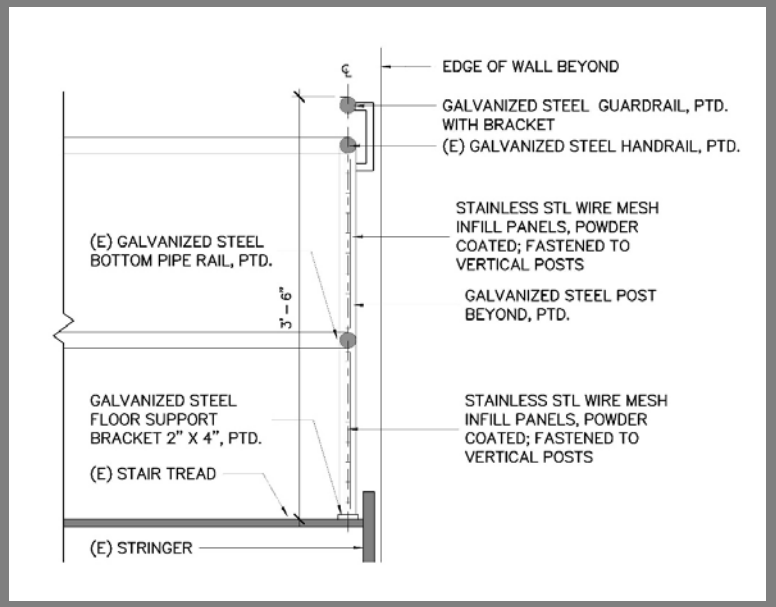


RECONFIGURED RAILINGS AT STAIR AT OBSERVATION DECK 1

OUTSIDE HANDRAIL / GUARDRAIL IMPROVEMENTS AT STAIR



PROPOSED MESH INFILL AT EXISTING OUTSIDE HANDRAILS

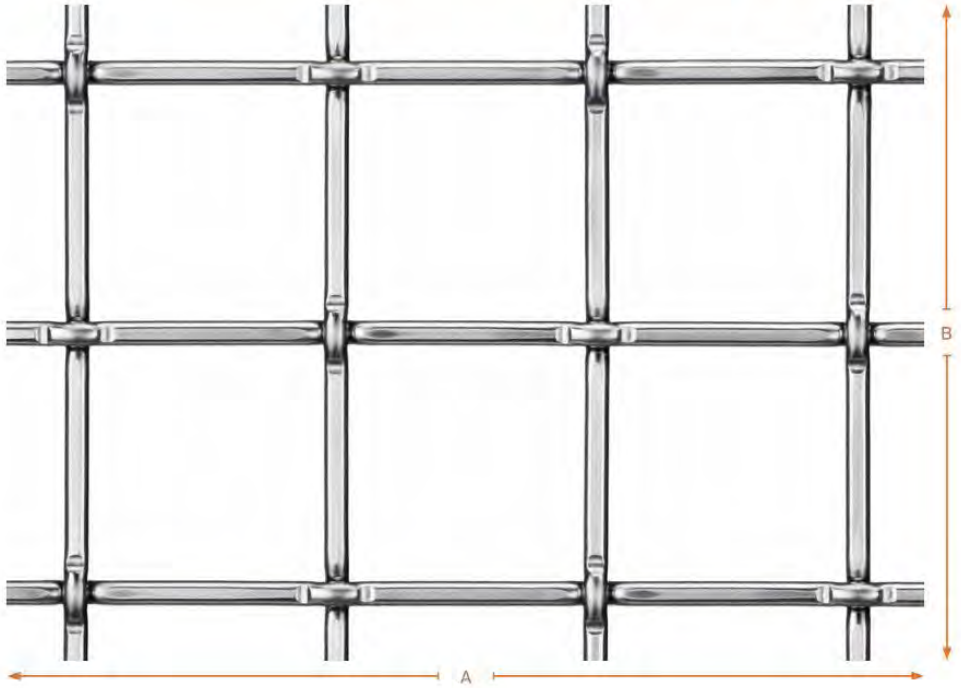


TYPICAL SECTION THROUGH ALTERED RAILINGS AT STAIR

EXISTING CONDITIONS

ALTERATIONS TO STAIR RAILINGS

LARGE L-62



SPECIFICATIONS

PERCENT OPEN AREA	81.7 %
*WEIGHT PER SQ FT	1.200 lb
**OPENING LIMITATION	1.810 inches
OVERALL THICKNESS	0.380 inches
ASPECT RATIO	1.00 : 1
CRIMP STYLE	LCLC
MAX SIDE A DIMENSION	240 inches
MAX SIDE B DIMENSION	120 inches
AVAILABLE ALLOYS	
Stainless, Mild Steel, Aluminum, Bronze, Brass, Copper, Pre-Galv, Galfan	

NOTES

QTY	B	A

Customization: Alloy configurations and sheet dimensions may be customizable depending on project design. For more information on the manufacturing capabilities of this mesh, please contact us.

*Weight based on the specific density of stainless steel

**Maximum sphere diameter which will pass through opening

Product specifications are subject to change. Product image is shown at 100% unless stated otherwise. For accuracy, specification sheet must be printed with no scaling. Measurements and data are approximate and should be confirmed with a physical sample.

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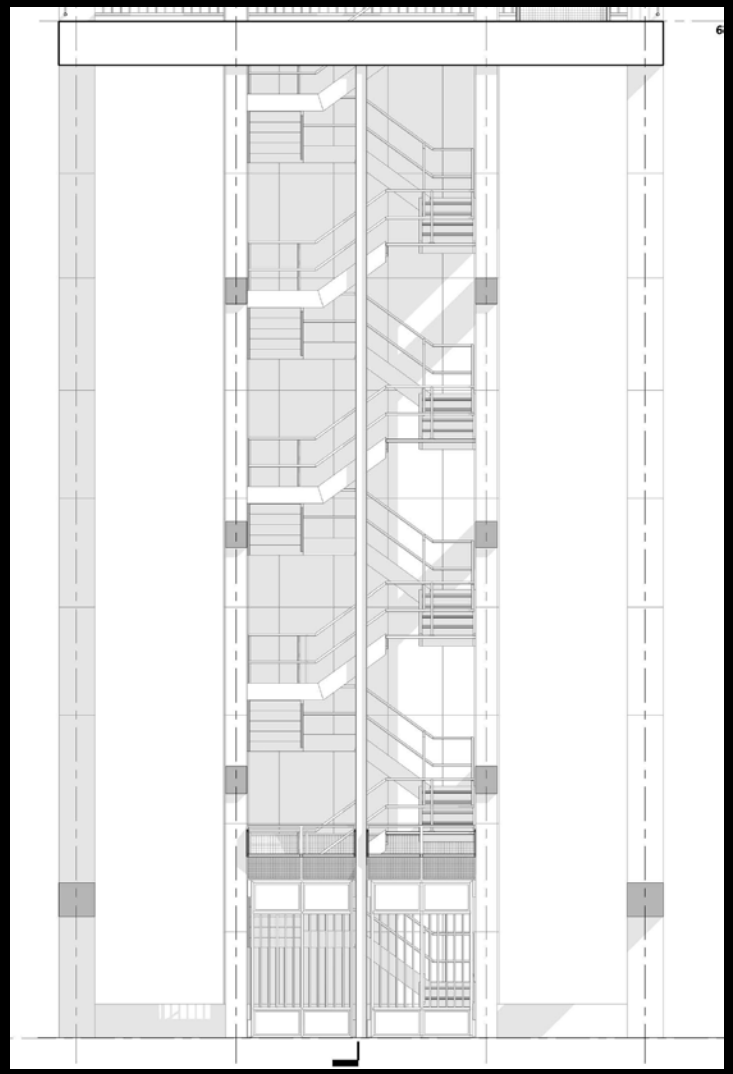
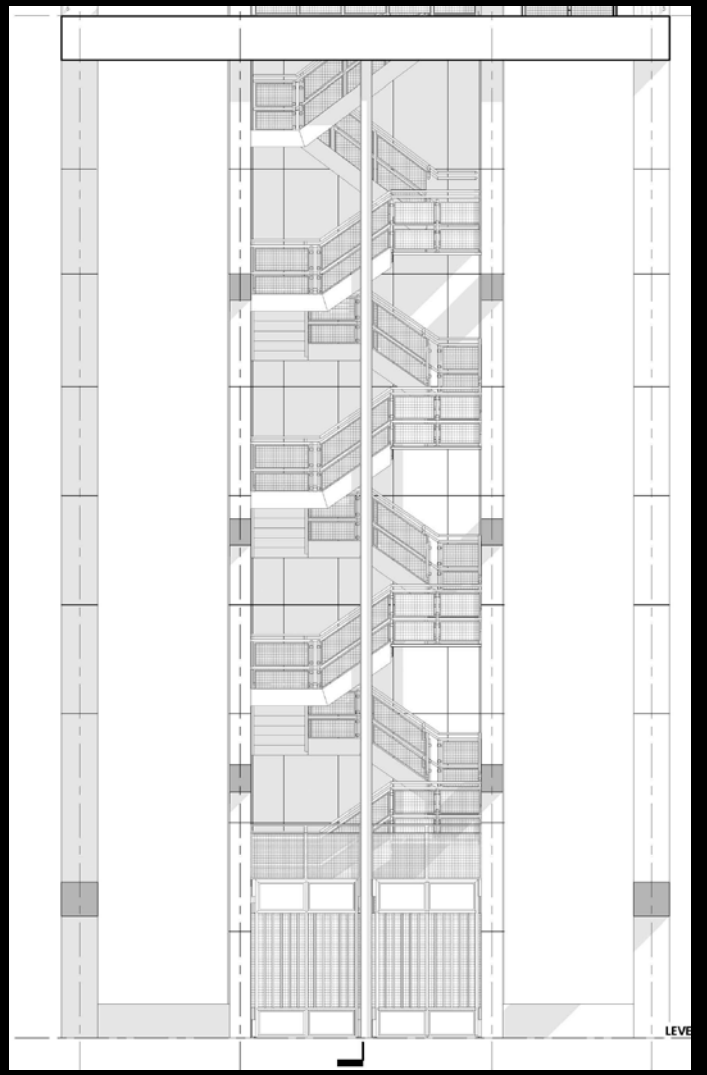
08/11/16

PROPOSED MESH INFILL FOR HANDRAILS

OUTSIDE HANDRAIL / GUARDRAIL IMPROVEMENTS AT STAIR

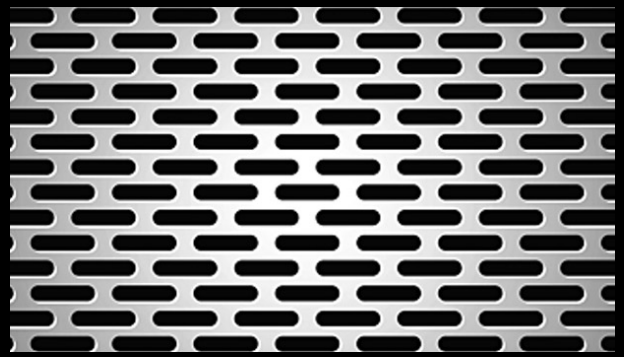


EXISTING



PREFERRED ALTERNATIVE
PROPOSED MESH INFILL AT EXISTING OUTSIDE HANDRAILS
ALTERATION TO UPPER STAIR

ALTERATIONS TO STAIRS



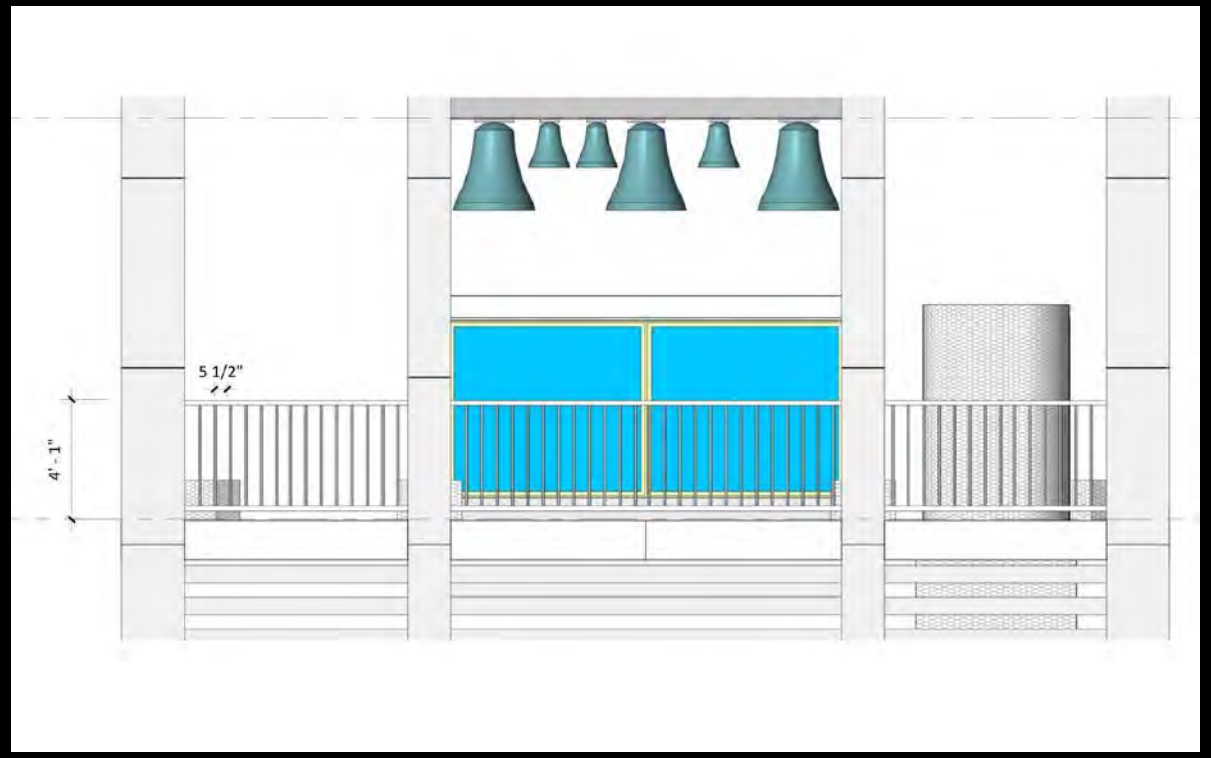
CLOSING OF OPEN RISERS

LANDING AND TREAD REPLACEMENT

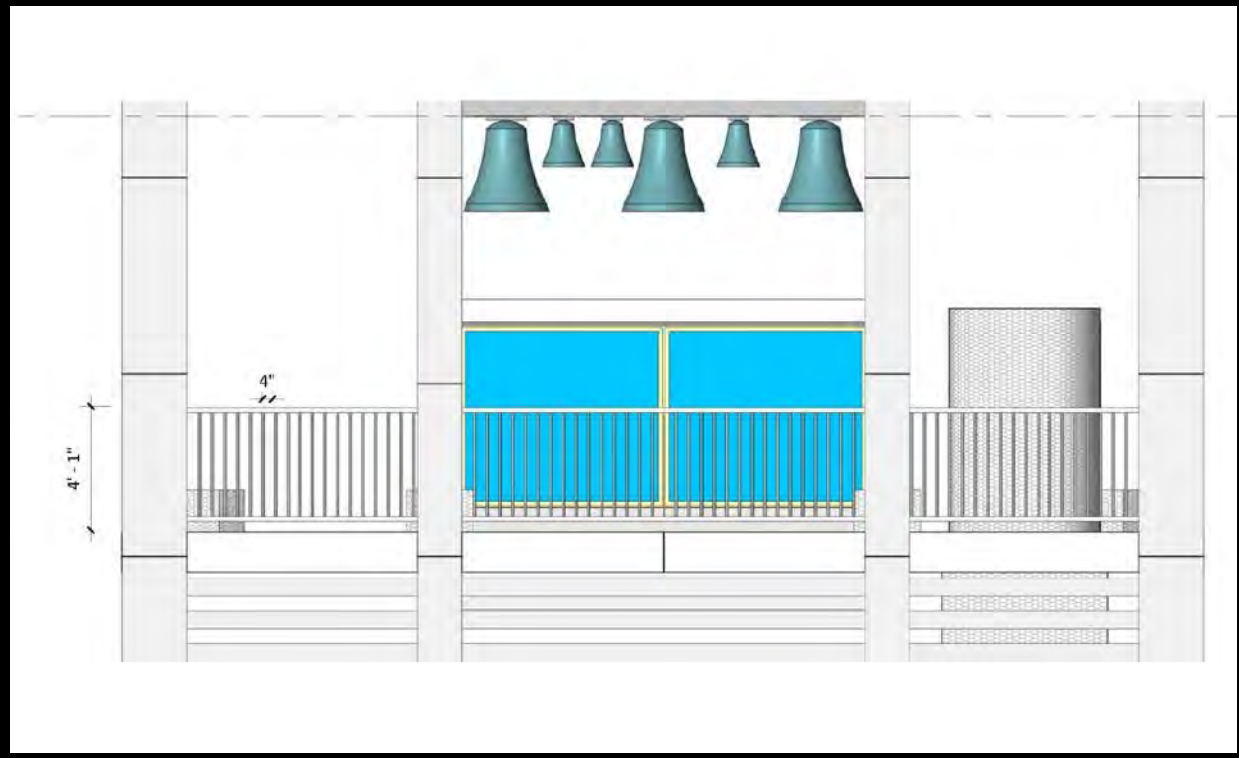
ALTERATIONS TO OBSERVATION DECKS

- Life safety improvements to guardrails
- Replacement of deteriorated floorplates

OBSERVATION DECK RAILINGS

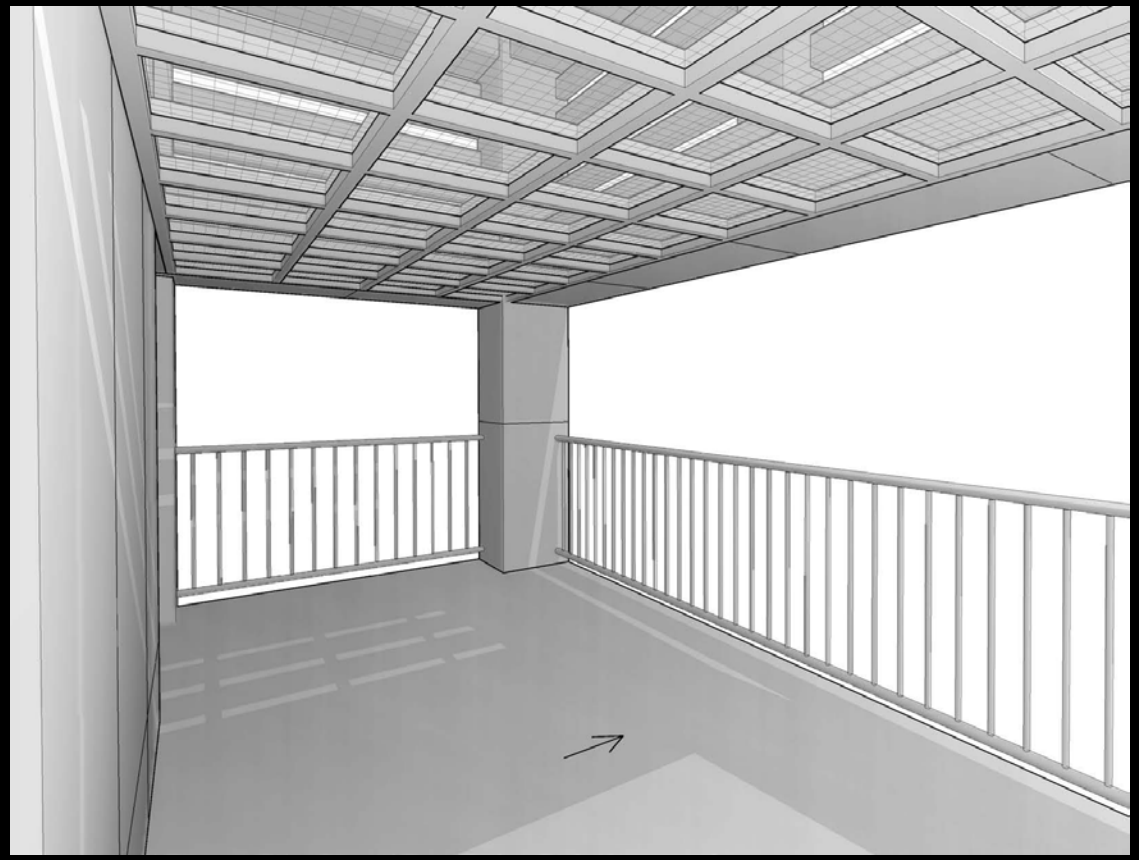


EXISTING GUARDRAIL AT OBSERVATION DECKS



OPTION: GUARDRAIL RECONFIGURED TO MATCH EXISTING WITH 4” SPACING

OBSERVATION DECK RAILINGS

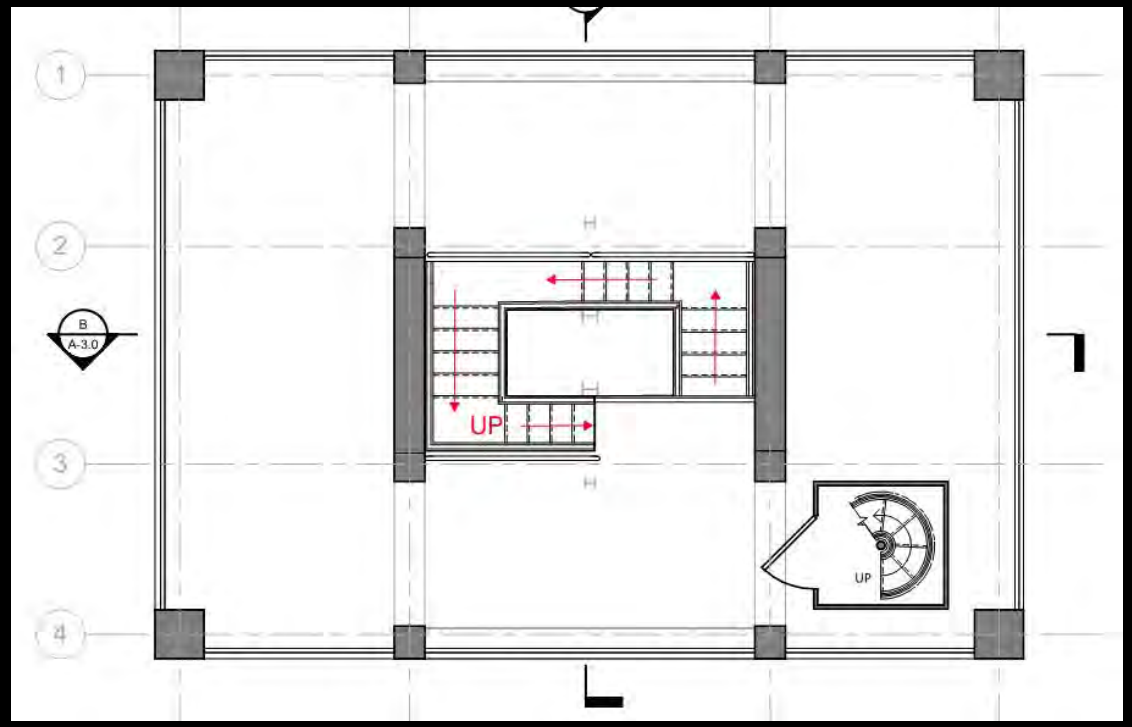


EXISTING GUARDRAIL AT OBSERVATION DECKS

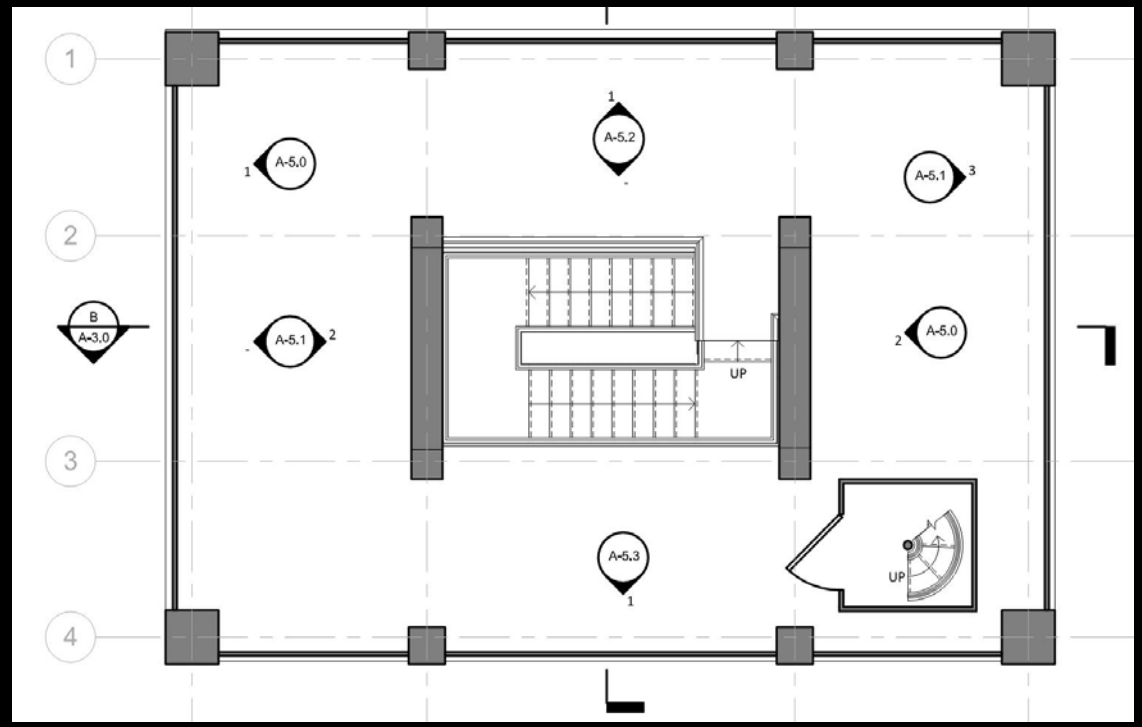
OPTION: GUARDRAIL RECONFIGURED TO MATCH EXISTING WITH 4” SPACING

RECONFIGURATION OF STAIR

FUTURE WORK



EXISTING STAIR CONFIGURATION AT OBSERVATION DECK 1

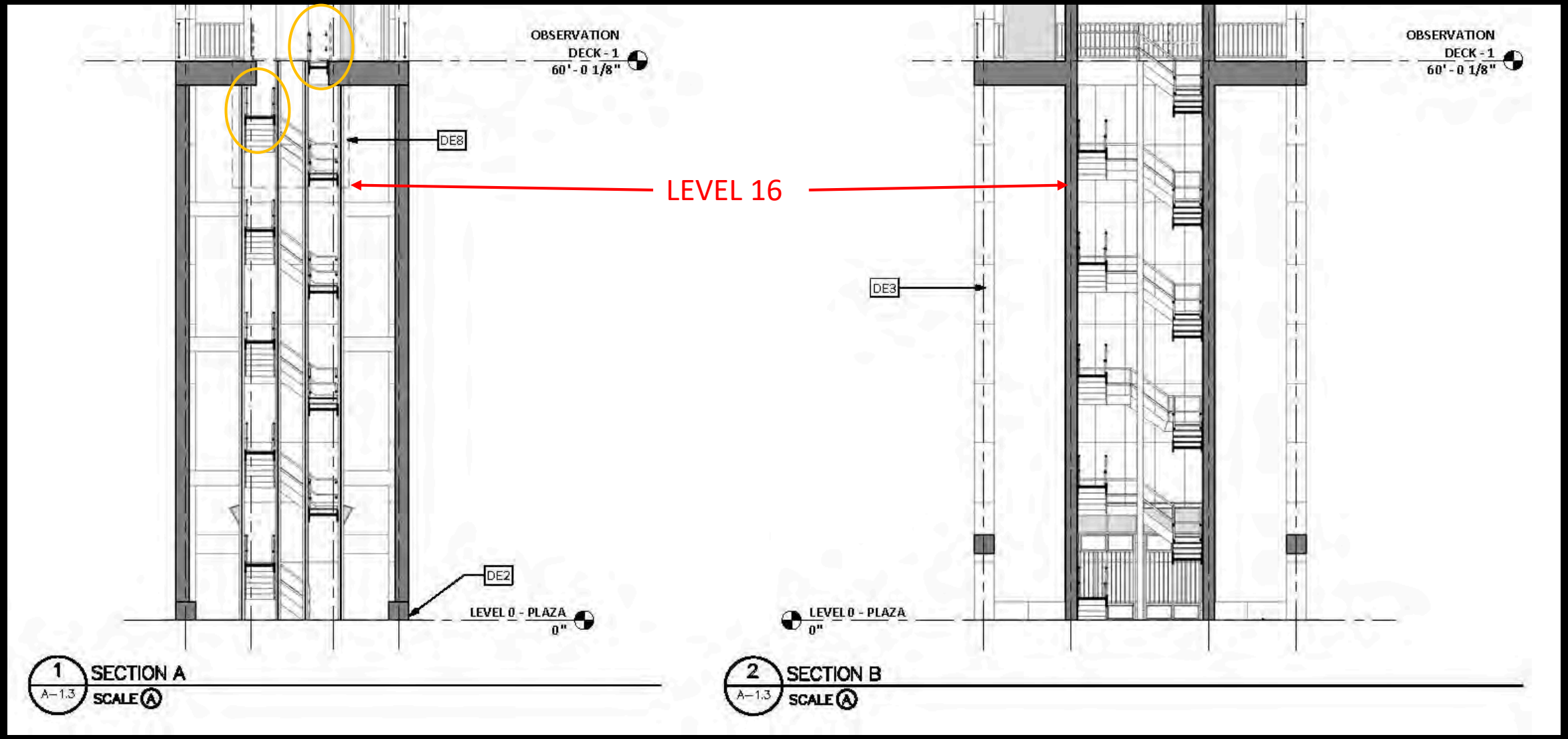


PREFERRED ALTERNATIVE: PROPOSED STAIR RECONFIGURATION AT OBSERVATION DECK 1

RECONFIGURATION OF STAIR

FUTURE WORK

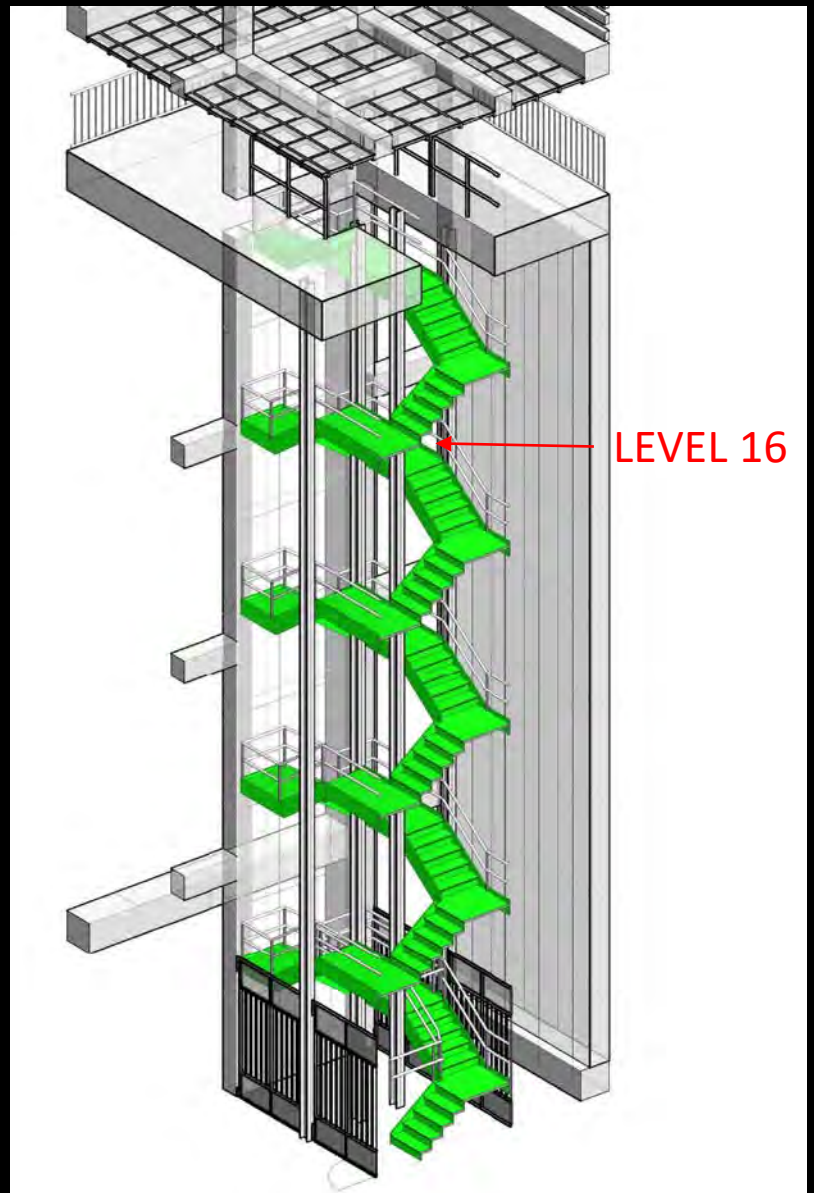
NARROWING OF STAIR WIDTH AT EXISTING STAIR



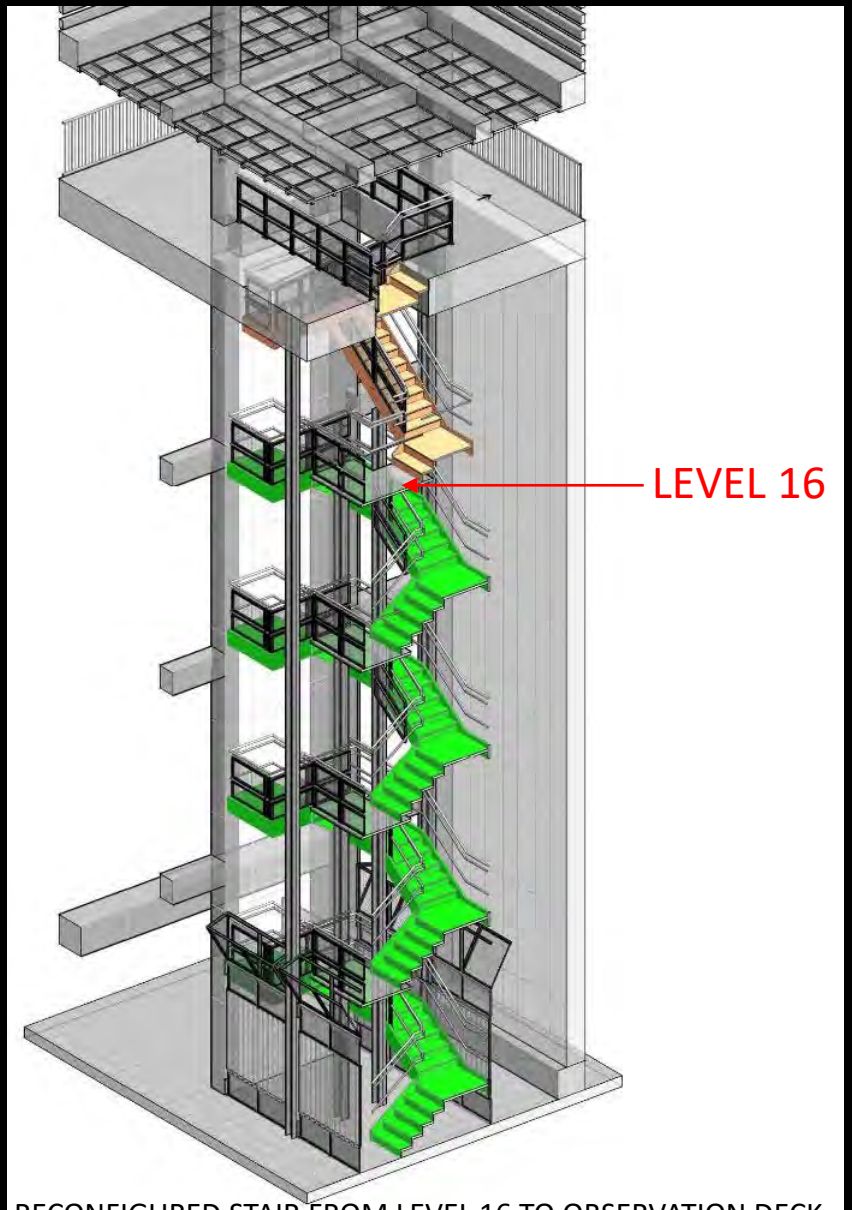
EXISTING STAIR SECTIONS TO OBSERVATION DECK 1

RECONFIGURATION OF STAIR

FUTURE WORK



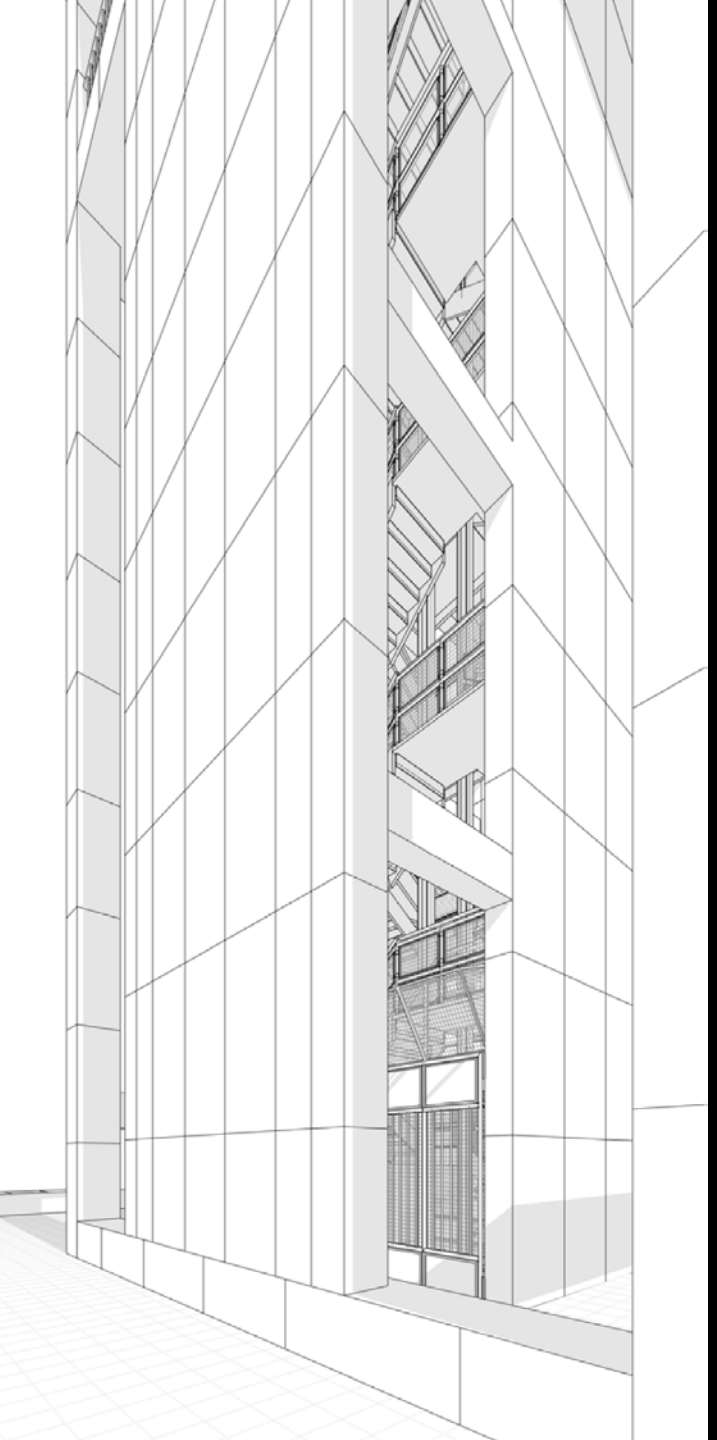
EXISTING STAIR CONFIGURATION

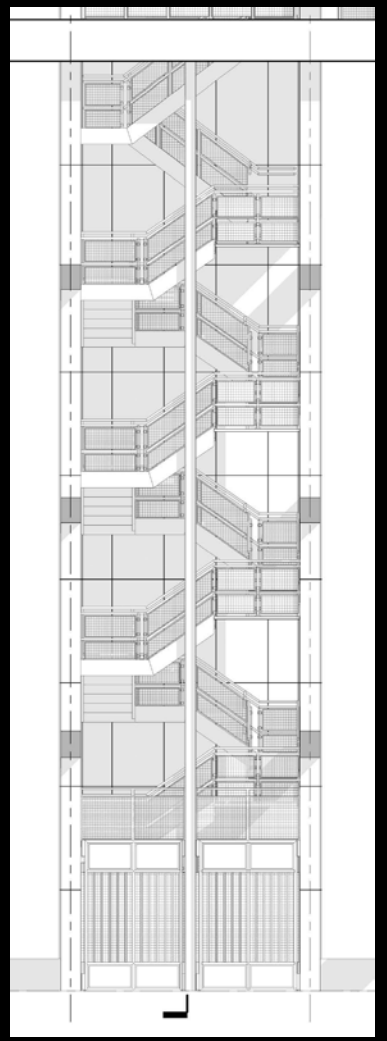


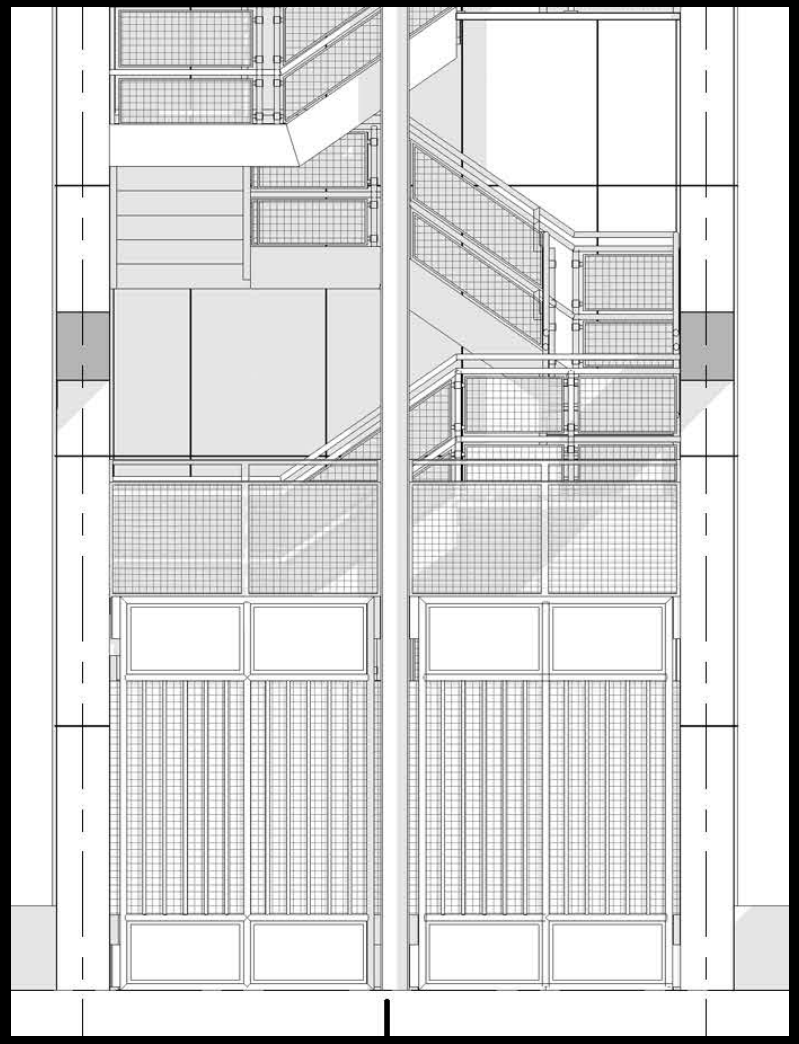
RECONFIGURED STAIR FROM LEVEL 16 TO OBSERVATION DECK

ENTRY GATE AND SECURITY IMPROVEMENTS

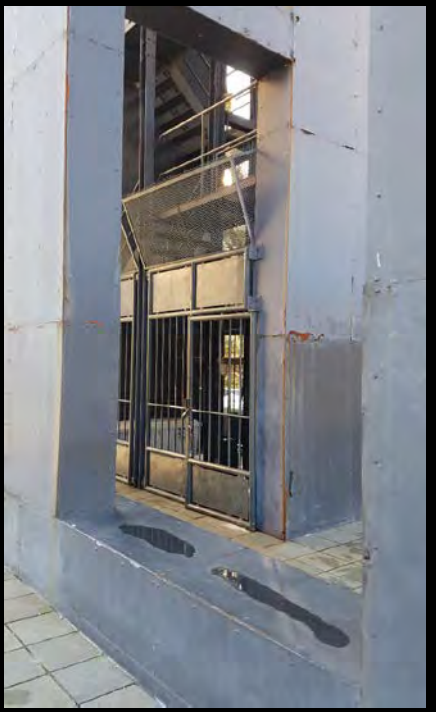
FUTURE WORK







DETAIL OF MESH AT GATES

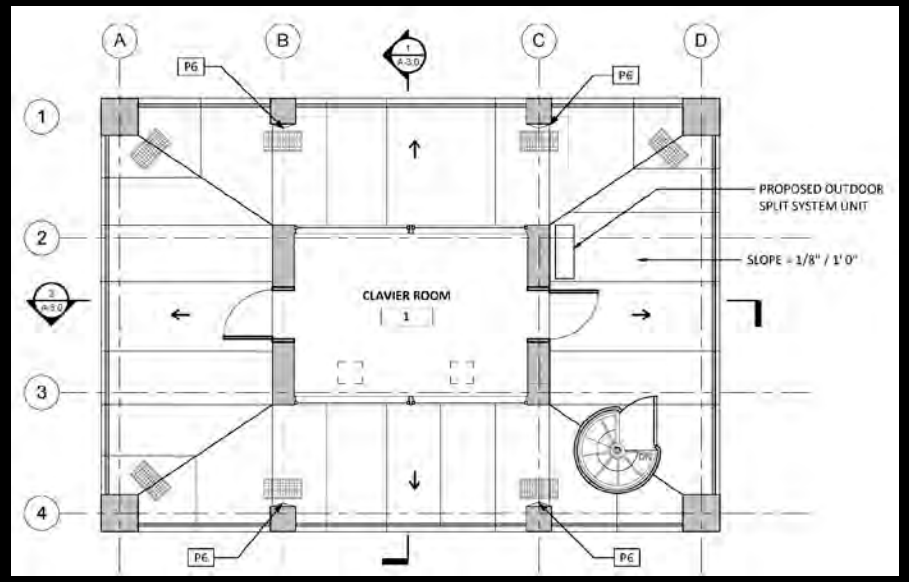


EXISTING CONDITIONS

PREFERRED ALTERNATIVE: MESH ADDITION TO GATES WITH EXISTING HOPPERS AND MESH INFILL AT RAILINGS

CLAVIER ROOM IMPROVEMENTS

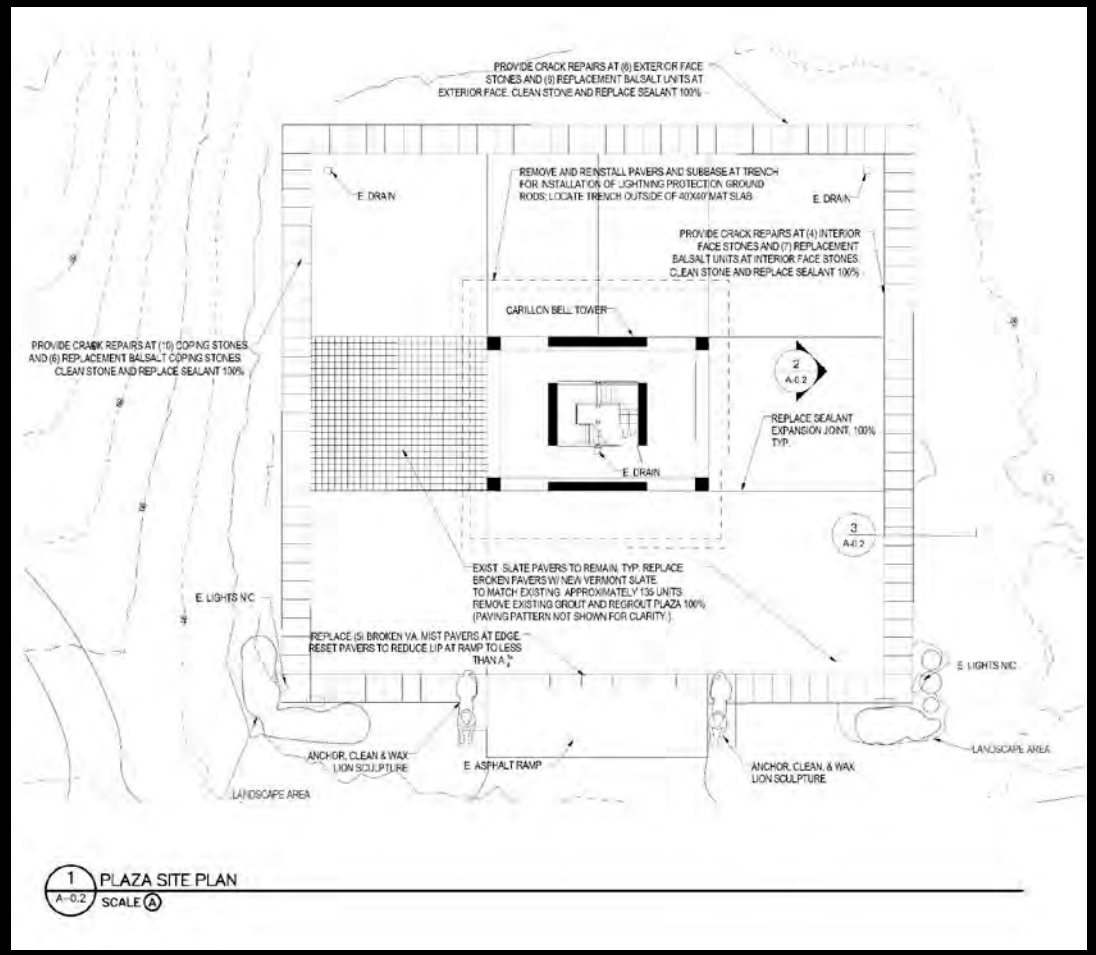
FUTURE WORK

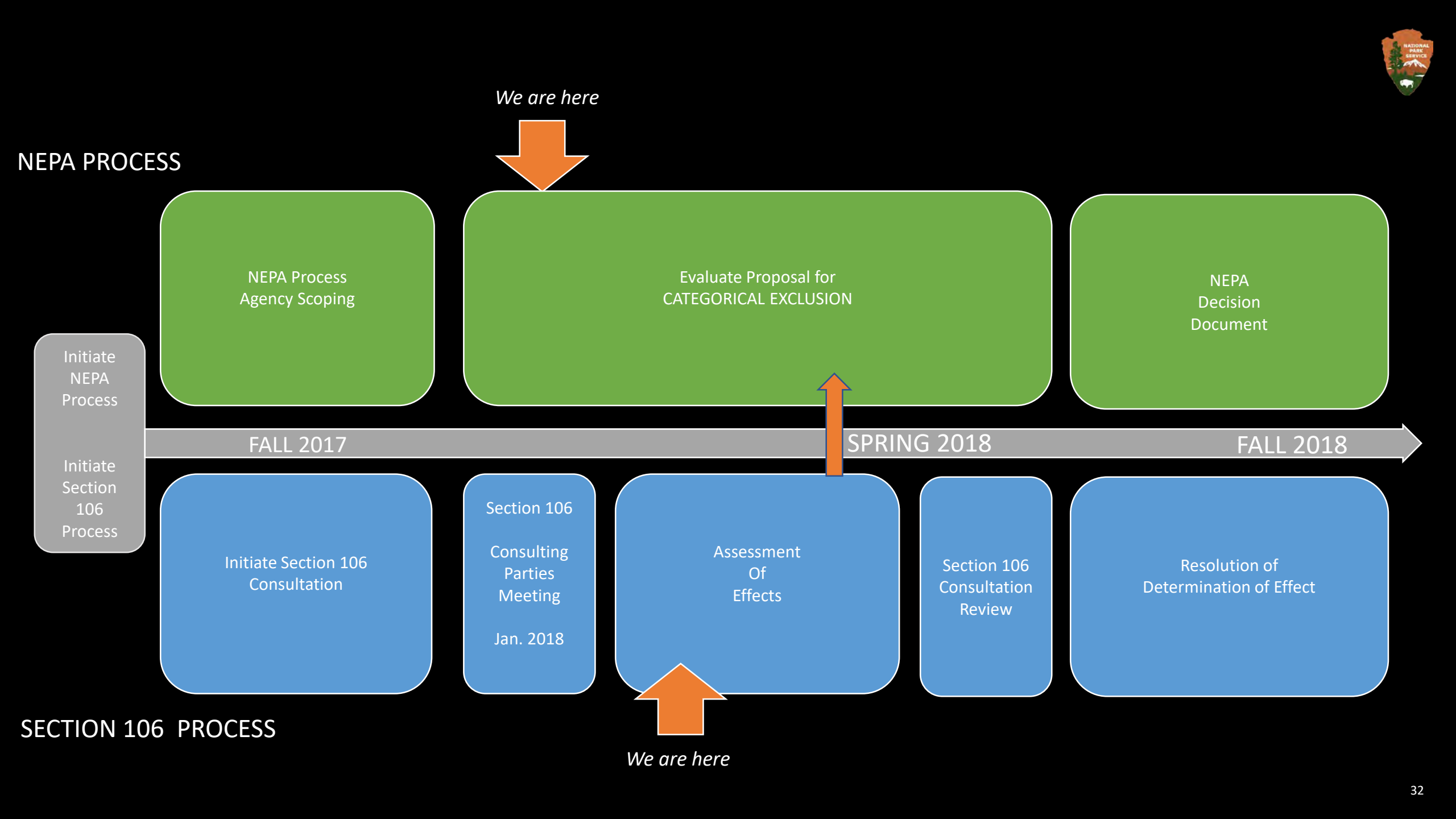


PROPOSED PLANS AT OBSERVATION DECK 2 / CLAVIER ROOM

- Raise floor to allow for pitching deck
- New doors to match existing with salvaged operating hardware.
- New double glazing
- New HVAC equipment – split system
- Replace electrical
- Remove existing hatch and track from roof
- Liquid applied roofing membrane

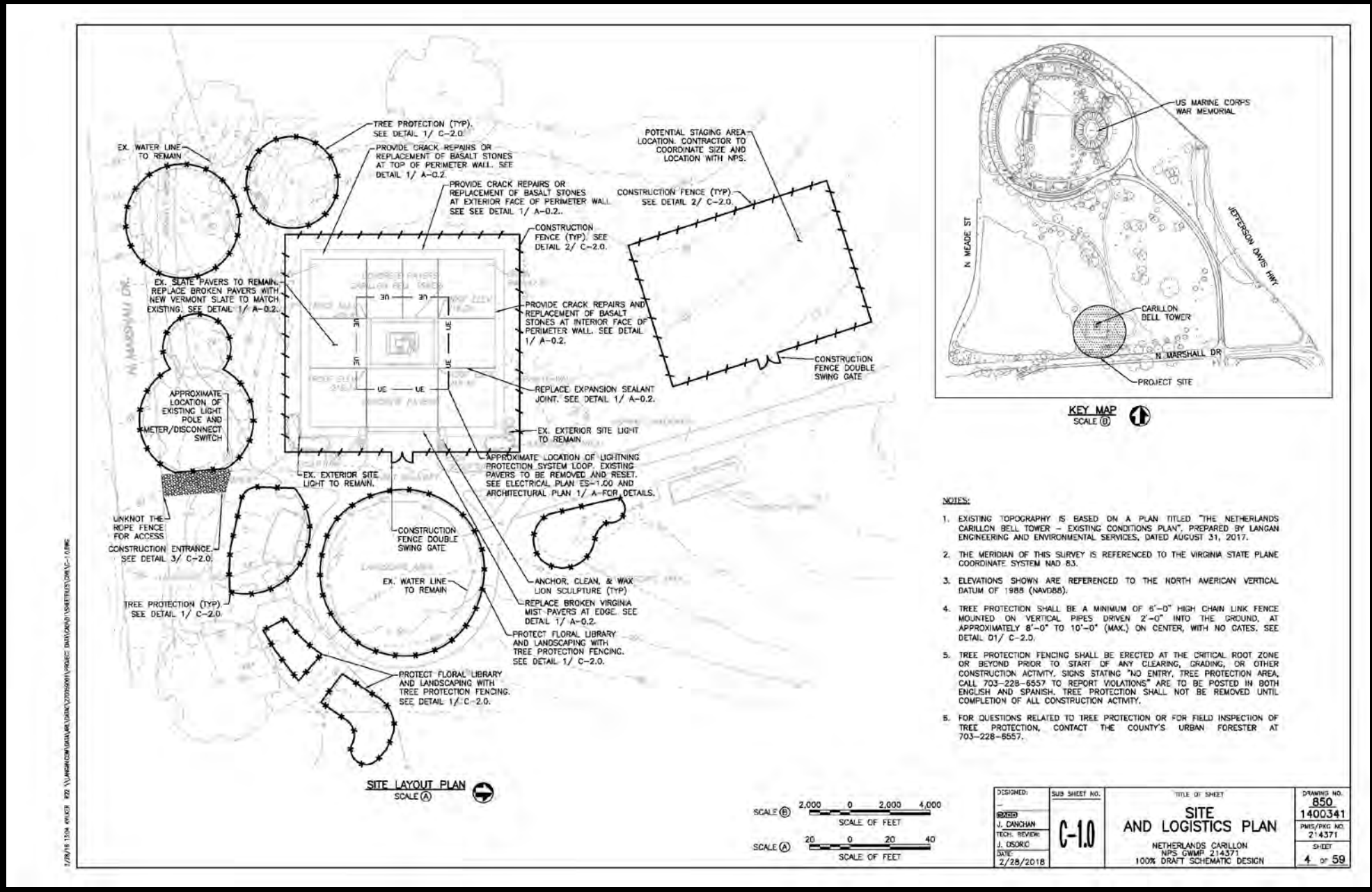
PLAZA IMPROVEMENTS

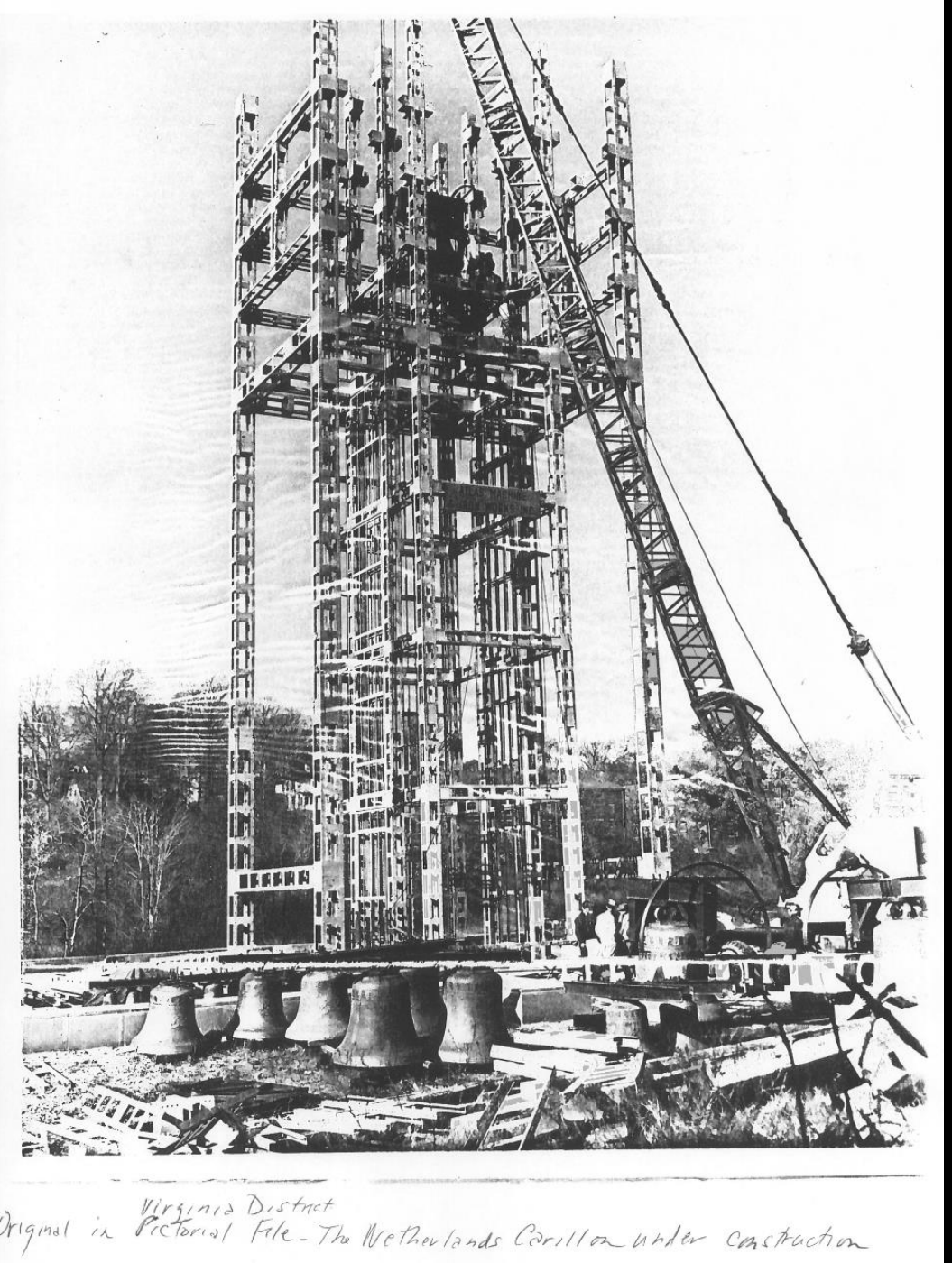



We are here
NEPA PROCESS
NEPA Process
Agency Scoping
Evaluate Proposal for
CATEGORICAL EXCLUSION
NEPA
Decision
Document
Initiate
NEPA
Process
Initiate
Section
106
Process
FALL 2017
SPRING 2018
FALL 2018
Initiate Section 106
Consultation
Section 106
Consulting
Parties
Meeting
Jan. 2018
Assessment
Of
Effects
Section 106
Consultation
Review
Resolution of
Determination of Effect
SECTION 106 PROCESS
We are here

HISTORIC RESOURCE

CULTURAL LANDSCAPE





CONSTRUCTION ACTIVITIES

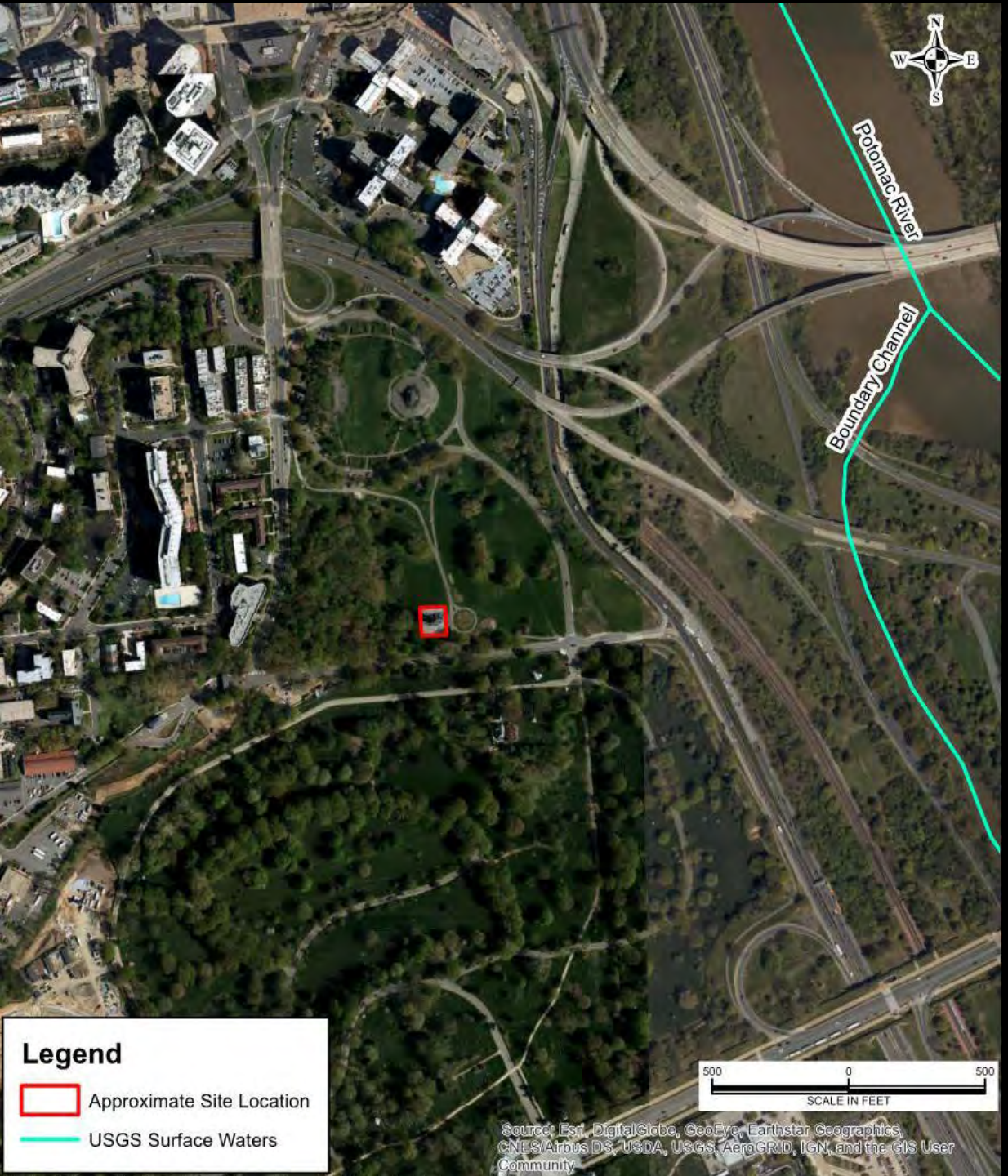
- Staging impact on existing trees
- Air quality during construction
- Noise during construction
- Abatement of hazardous materials

1995 Construction staging along N. Marshall Drive

ENVIRONMENTAL - WETLANDS

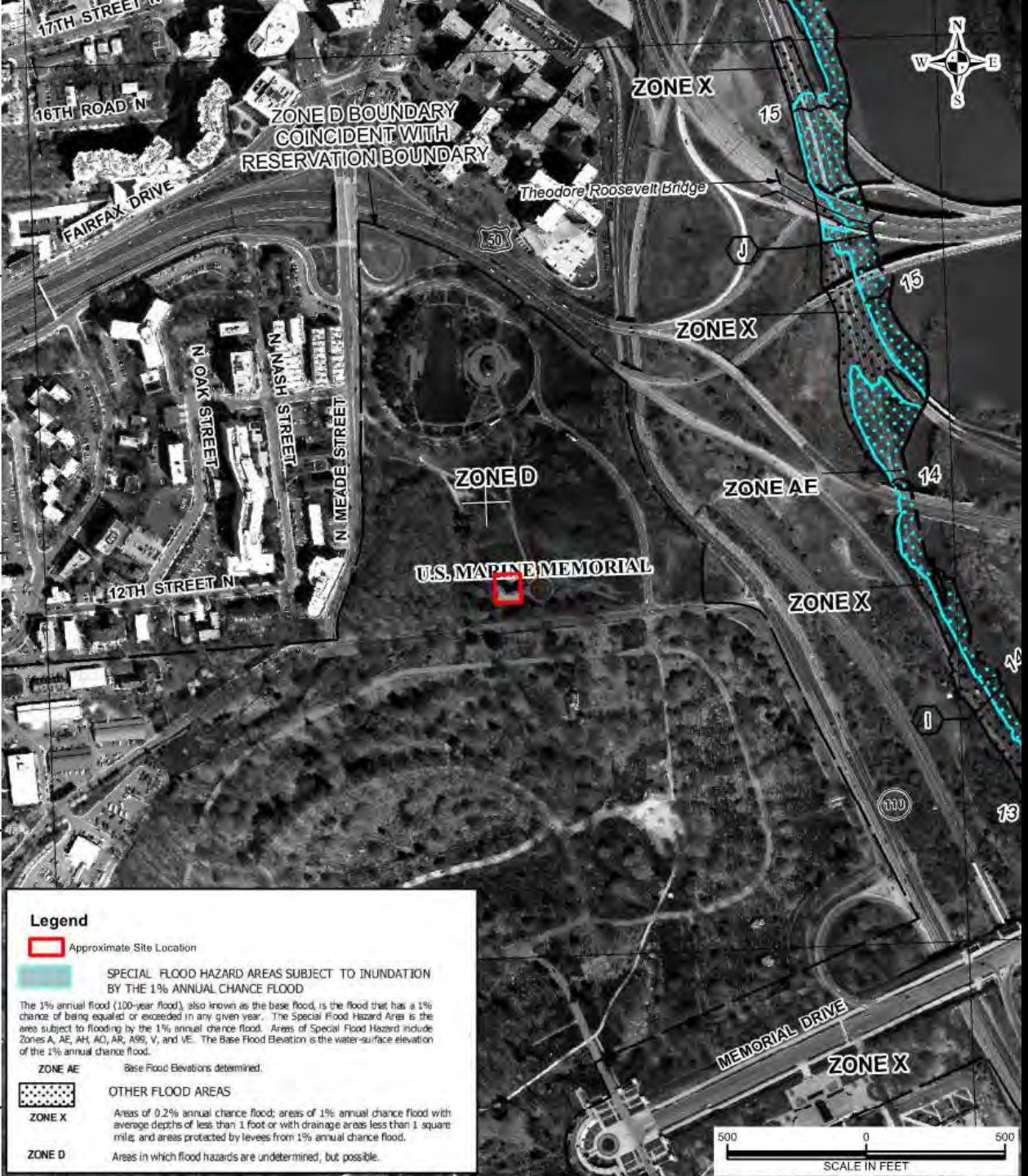
Cowardin Classification	Description
PFO1S	Palustrine Forested Broadleaved Deciduous Temporary Flooded-Tidal
R1USQ	Riverine Tidal Unconsolidated Shore Regularly Flooded
R1UBV	Riverine Tidal Unconsolidated Shore Permanently Flooded-Tidal
R5UBH	Riverine Unknown Perennial Unconsolidated Bottom Permanently Flooded

ENVIRONMENTAL – SURFACE WATERS

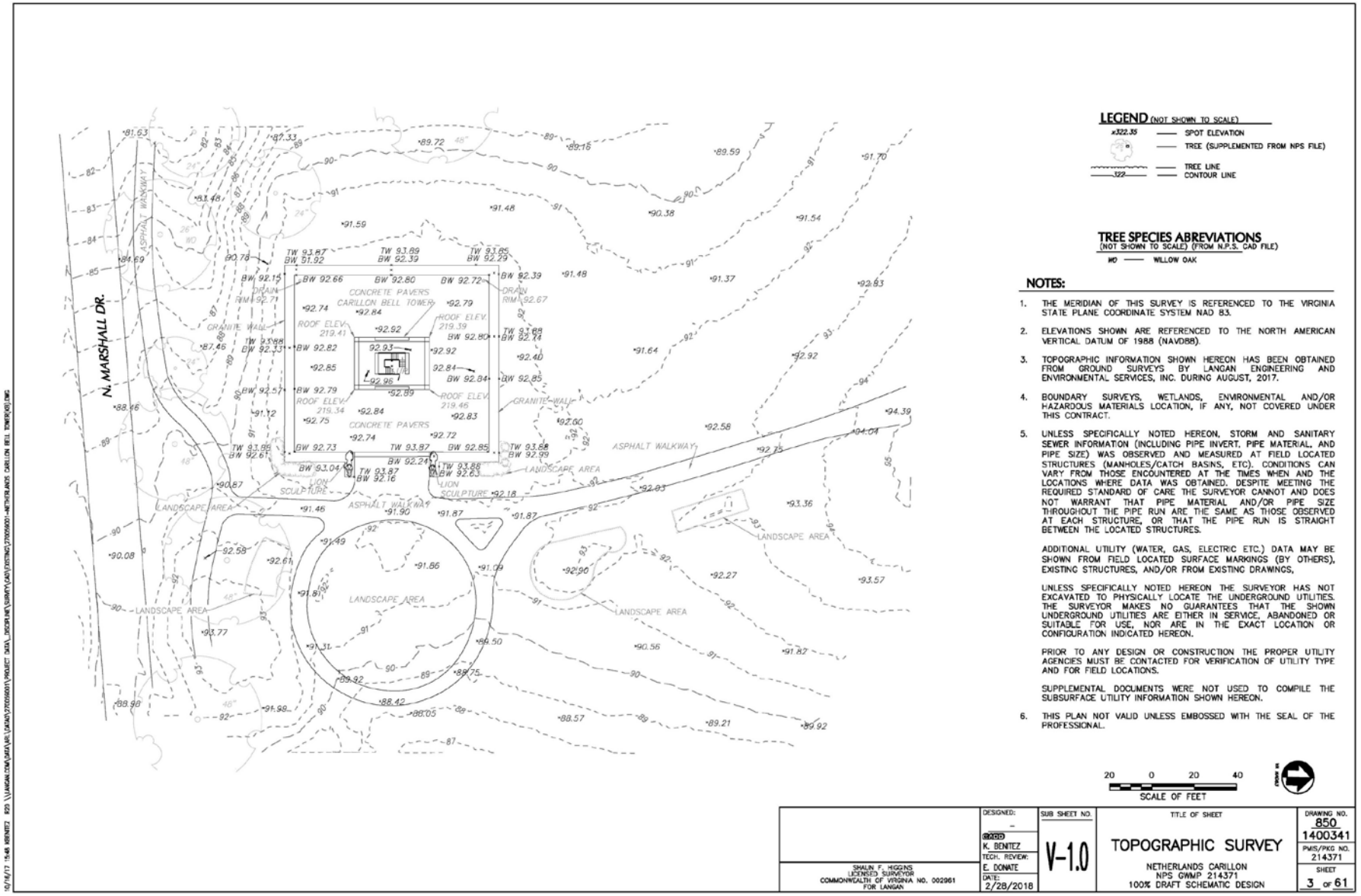


ENVIRONMENTAL – SOILS

ADDITIONAL TOPICS – FLOODPLAIN



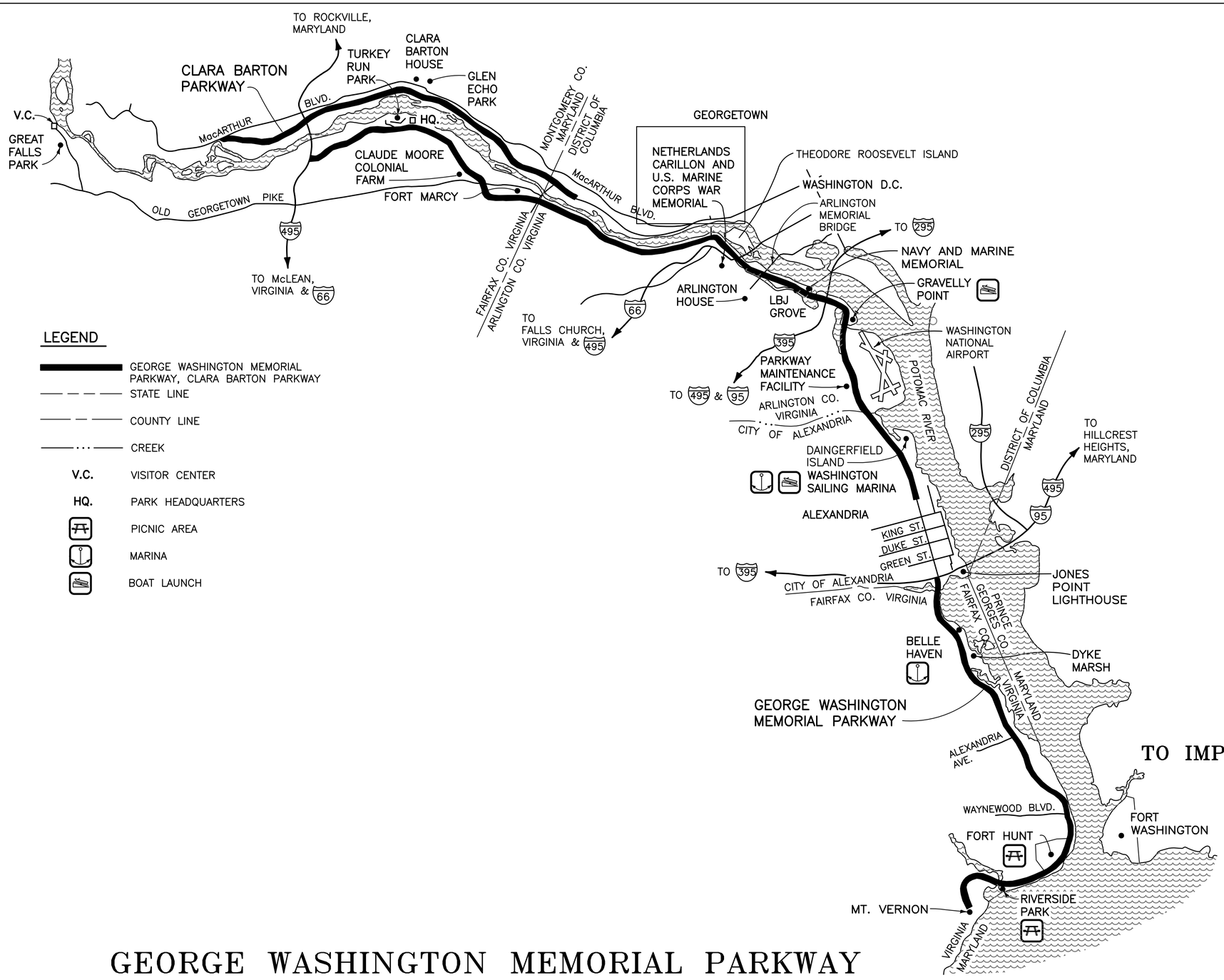
STORMWATER MANAGEMENT



SOUNDSCAPE AND NOISE

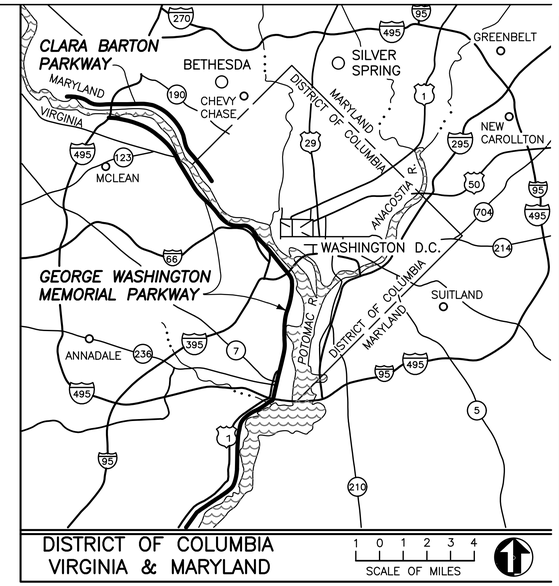
LIGHTSCAPE

QUESTIONS?



LEGEND

- GEORGE WASHINGTON MEMORIAL PARKWAY, CLARA BARTON PARKWAY
- STATE LINE
- COUNTY LINE
- CREEK
- V.C. VISITOR CENTER
- HQ. PARK HEADQUARTERS
- PICNIC AREA
- MARINA
- BOAT LAUNCH



REHABILITATE NETHERLANDS CARILLON TO IMPROVE SAFETY AND VISITOR EXPERIENCE

100% DRAFT SCHEMATIC DESIGN
FEBRUARY 28, 2018

GEORGE WASHINGTON MEMORIAL PARKWAY

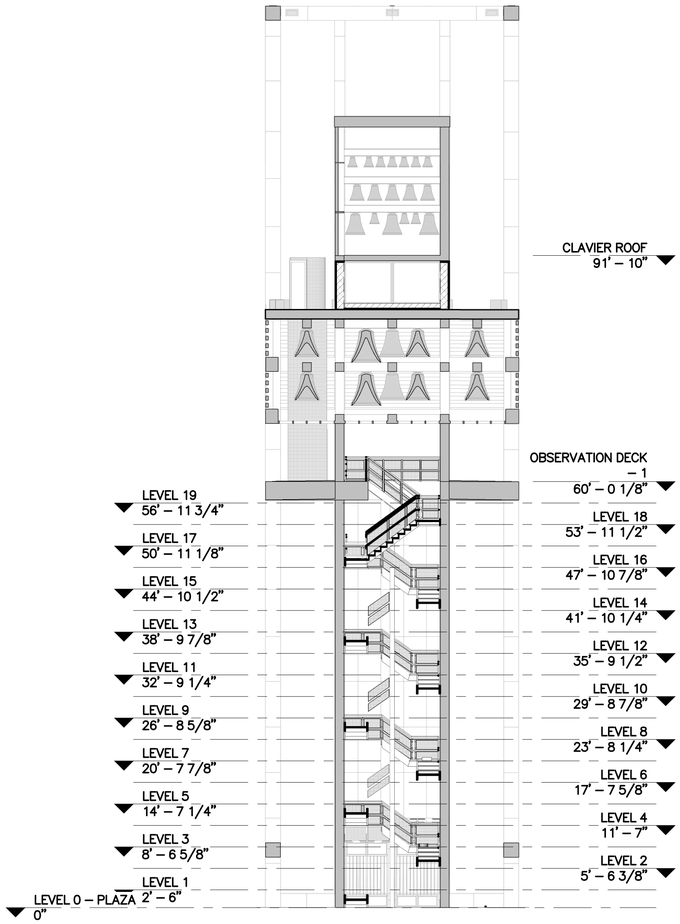
SCALE OF MILES
1 0 1 2 3
1 0 1 2 3 4
SCALE OF KILOMETERS

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
DENVER SERVICE CENTER

TITLE OF DRAWING: COVER SHEET
LOCATION WITHIN PARK: ARLINGTON RIDGE
NAME OF PARK: GEORGE WASHINGTON MEMORIAL PARKWAY
REGION: NATIONAL CAPITAL REGION
STATE: ARLINGTON, VA

DRAWING NO. 850 140341
PKG. NO. 21437
SHEET 1 OF 61

BASIC DATA: THE COMPREHENSIVE DESIGN PLAN FOR THE WHITE HOUSE; 4/98. COVER SHEET DRAWN 6/98. UPDATED 11/98. SGS.



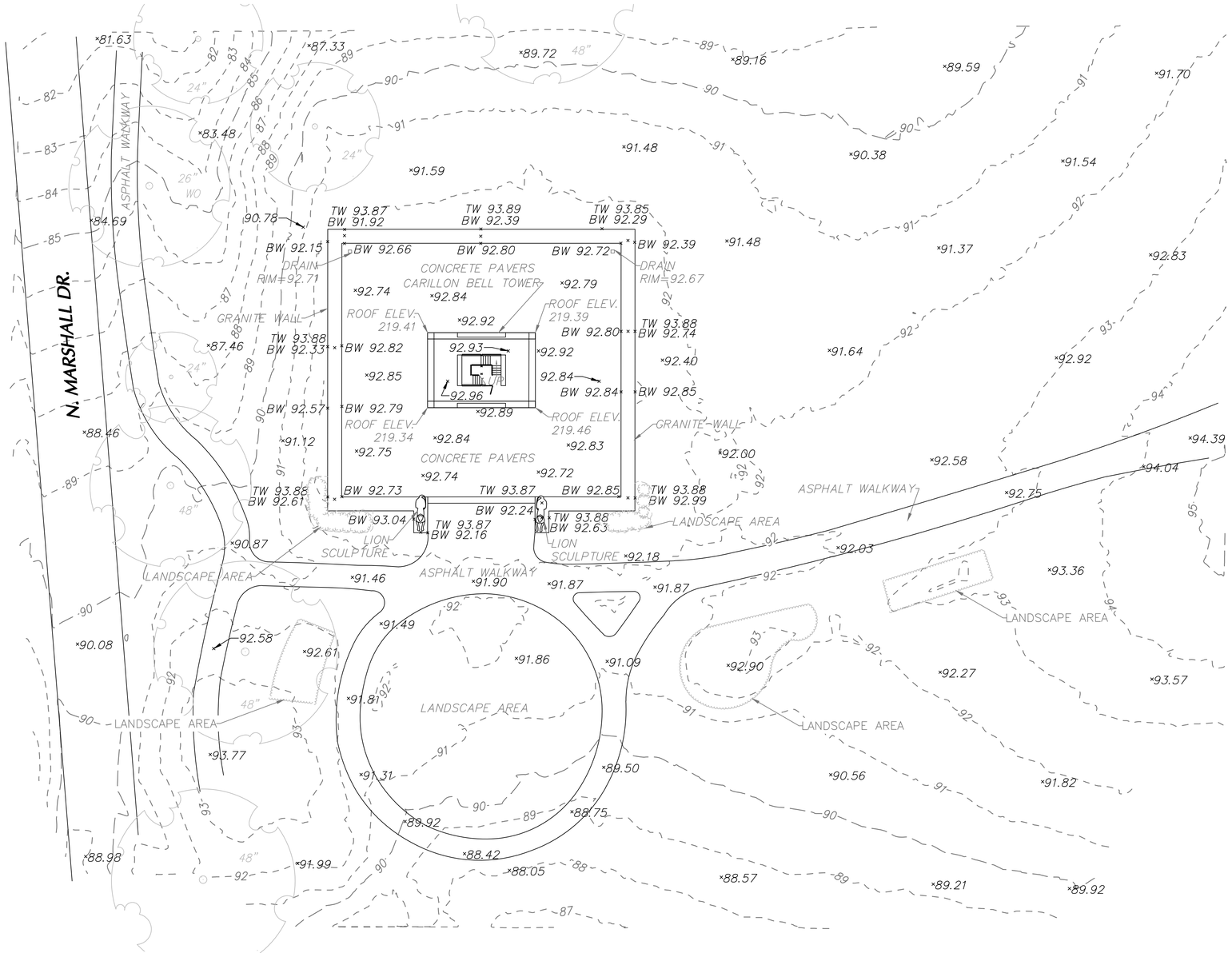
1 G–1.0 KEYPLAN
SCALE A

ABBREVIATIONS

AFF	ABOVE FINISH FLOOR
AP	ACCESS PANEL
ACT	ACOUSTICAL CEILING TILE
A/C	AIR CONDITIONING
ALT	ALTERNATE
ALUM	ALUMINUM
AB	ANCHOR BOLT
ARCH	ARCHITECT(URAL)
ASPH	ASPHALT
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AUX	AUXILARY
BRG	BEARING
BD	BOARD
BOT	BOTTOM
BLDG	BUILDING
CAB	CABINET
CARP	CARPET
CLG	CEILING
CTR	CENTER
℄	CENTERLINE
CT	CERAMIC TILE
CLR	CLEAR(ANCE)
CL	CLOSET
COL	COLUMN
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONST	CONSTRUCTION
CONT	CONTINUE/CONTINOUS
CJ	CONTROL JOINT
COORD	COORDINATE
CORR	CORRIDOR
DEMO	DEMOLISH, DEMOLITION
DTL	DETAIL
DIAG	DIAGONAL
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DWR	DRAWER
DWG	DRAWING
D	DRAIN
EA	EACH
E	EAST
ELEC	ELECTRIC(AL)
EWC	ELECTRIC WATER COOLER
EMER	EMERGENCY
ENCL	ENCLOSE (URE)
EQ	EQUAL
EQUIP	EQUIPMENT
EXIST	EXISTING
EJ	EXPANSION JOINT
EXP	EXPOSED
EXT	EXTERIOR
FIN	FINISH(ED)
FFL	FINISH FLOOR LEVEL
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FLR	FLOOR(ING)
FD	FLOOR DRAIN
FM	FLOOR MAT & FRAME
FT	FEET
FTG	FOOTING
FR	FRAME(ED), (ING)
FBO	FURNISHED BY OTHERS
FURR	FURRED (ING)
GA	GAGE, GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GL	GLASS, GLAZING
GWB	GYPSUM WALLBOARD
HC	HANDICAPPED
HDR	HEADER
HVAC	HEATING/VENTILATION / AIR-CONDITIONING
HT	HEIGHT
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HB	HOSE BIB
HWH	HOT WATER HEATER
IN	INCH
INSUL	INSULATE(D), (ING)
INT	INTERIOR
JAN	JANITOR
JT	JOINT
JST	JOIST
LAV	LAVATORY
LT	LIGHT
MB	MARKER BOARD
MFR	MANUFACTURE(R)
MO	MASONRY OPENING
MAX	MAXIMUM
MECH	MECHANIC(AL)
MTL	METAL
MIN	MINIMUM
MISC	MISCELLANEOUS
MTD	MOUNTED
NOM	NOMINAL
N	NORTH
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO	NUMBER
OFF	OFFICE
OC	ON CENTER(S)
OPG	OPENING
OPP	OPPOSITE
PTD	PAINTED
PVG	PAVE(D), (ING)
PVMT	PAVEMENT
PLAM	PLASTIC LAMINATE
PLYWD	PLYWOOD
PVC	POLYVINYL CHLORIDE
PSI	POUNDS PER SQUARE INCH
PSF	POUNDS PER SQUARE FOOT
QTY	QUANTITY
RAD	RADIUS
REF	REFERENCE
REFR	REFRIGERATOR
REINF	REINFORCING
REQ	REQUIRE(D)
REV	REVISION(S), REVISED
R	RISER
RD	ROOF DRAIN
RM	ROOM
RO	ROUGH OPENING
SEC	SECTION
SHT	SHEET
SIM	SIMILAR
STC	SOUND TRANSMISSION
S	SOUTH
SPEC	SPECIFICATION(S)
SQ	SQUARE
SF	SQUARE FEET
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR	STORAGE
STR	STRUCTURAL
SUSP	SUPSPENDED
TB	TACKBOARD
THK	THICK(NESS)
T&G	TONGUE AND GROOVE
TOS	TOP OF SLAB
TO STL	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UL	UNDERWRITERS LABORATORY
UNO	UNLESS OTHERWISE NOTED
VERT	VERTICAL
VIF	VERIFY IN FIELD
VCT	VINYL COMPOSITE TILE
WC	WATER CLOSET
WWF	WELDED WIRE FABRIC
W	WEST
W	WIDTH, WIDE
W/	WITH
W/O	WITHOUT
WD	WOOD

DRAWING INDEX

DESIGNED: Designer	SUB SHEET NO. G-1.0	TITLE OF SHEET: INDEX & ABBREVIATIONS	DRAWING NO. 850 140341
DRAWN: IE		Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	PMIS/PKG NO. 214371
TECH. REVIEW: KF, AW			SHEET 2 OF 61
DATE: 2/28/2018			



LEGEND (NOT SHOWN TO SCALE)

- x322.35 — SPOT ELEVATION
- 26 — TREE (SUPPLEMENTED FROM NPS FILE)
- TREE LINE
- 322 — CONTOUR LINE

TREE SPECIES ABREVIATIONS
(NOT SHOWN TO SCALE) (FROM N.P.S. CAD FILE)

- WO — WILLOW OAK

NOTES:

1. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO THE VIRGINIA STATE PLANE COORDINATE SYSTEM NAD 83.
2. ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. TOPOGRAPHIC INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM GROUND SURVEYS BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC. DURING AUGUST, 2017.
4. BOUNDARY SURVEYS, WETLANDS, ENVIRONMENTAL AND/OR HAZARDOUS MATERIALS LOCATION, IF ANY, NOT COVERED UNDER THIS CONTRACT.
5. UNLESS SPECIFICALLY NOTED HEREON, STORM AND SANITARY SEWER INFORMATION (INCLUDING PIPE INVERT, PIPE MATERIAL, AND PIPE SIZE) WAS OBSERVED AND MEASURED AT FIELD LOCATED STRUCTURES (MANHOLES/CATCH BASINS, ETC). CONDITIONS CAN VARY FROM THOSE ENCOUNTERED AT THE TIMES WHEN AND THE LOCATIONS WHERE DATA WAS OBTAINED. DESPITE MEETING THE REQUIRED STANDARD OF CARE THE SURVEYOR CANNOT AND DOES NOT WARRANT THAT PIPE MATERIAL AND/OR PIPE SIZE THROUGHOUT THE PIPE RUN ARE THE SAME AS THOSE OBSERVED AT EACH STRUCTURE, OR THAT THE PIPE RUN IS STRAIGHT BETWEEN THE LOCATED STRUCTURES.

   ADDITIONAL UTILITY (WATER, GAS, ELECTRIC ETC.) DATA MAY BE SHOWN FROM FIELD LOCATED SURFACE MARKINGS (BY OTHERS), EXISTING STRUCTURES, AND/OR FROM EXISTING DRAWINGS,

   UNLESS SPECIFICALLY NOTED HEREON THE SURVEYOR HAS NOT EXCAVATED TO PHYSICALLY LOCATE THE UNDERGROUND UTILITIES. THE SURVEYOR MAKES NO GUARANTEES THAT THE SHOWN UNDERGROUND UTILITIES ARE EITHER IN SERVICE, ABANDONED OR SUITABLE FOR USE, NOR ARE IN THE EXACT LOCATION OR CONFIGURATION INDICATED HEREON.

   PRIOR TO ANY DESIGN OR CONSTRUCTION THE PROPER UTILITY AGENCIES MUST BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD LOCATIONS.

   SUPPLEMENTAL DOCUMENTS WERE NOT USED TO COMPILE THE SUBSURFACE UTILITY INFORMATION SHOWN HEREON.
6. THIS PLAN NOT VALID UNLESS EMBOSSED WITH THE SEAL OF THE PROFESSIONAL.

20 0 20 40
SCALE OF FEET

VA (NAD83)

SHAUN F. HIGGINS
LICENSED SURVEYOR
COMMONWEALTH OF VIRGINIA NO. 002961
FOR LANGAN

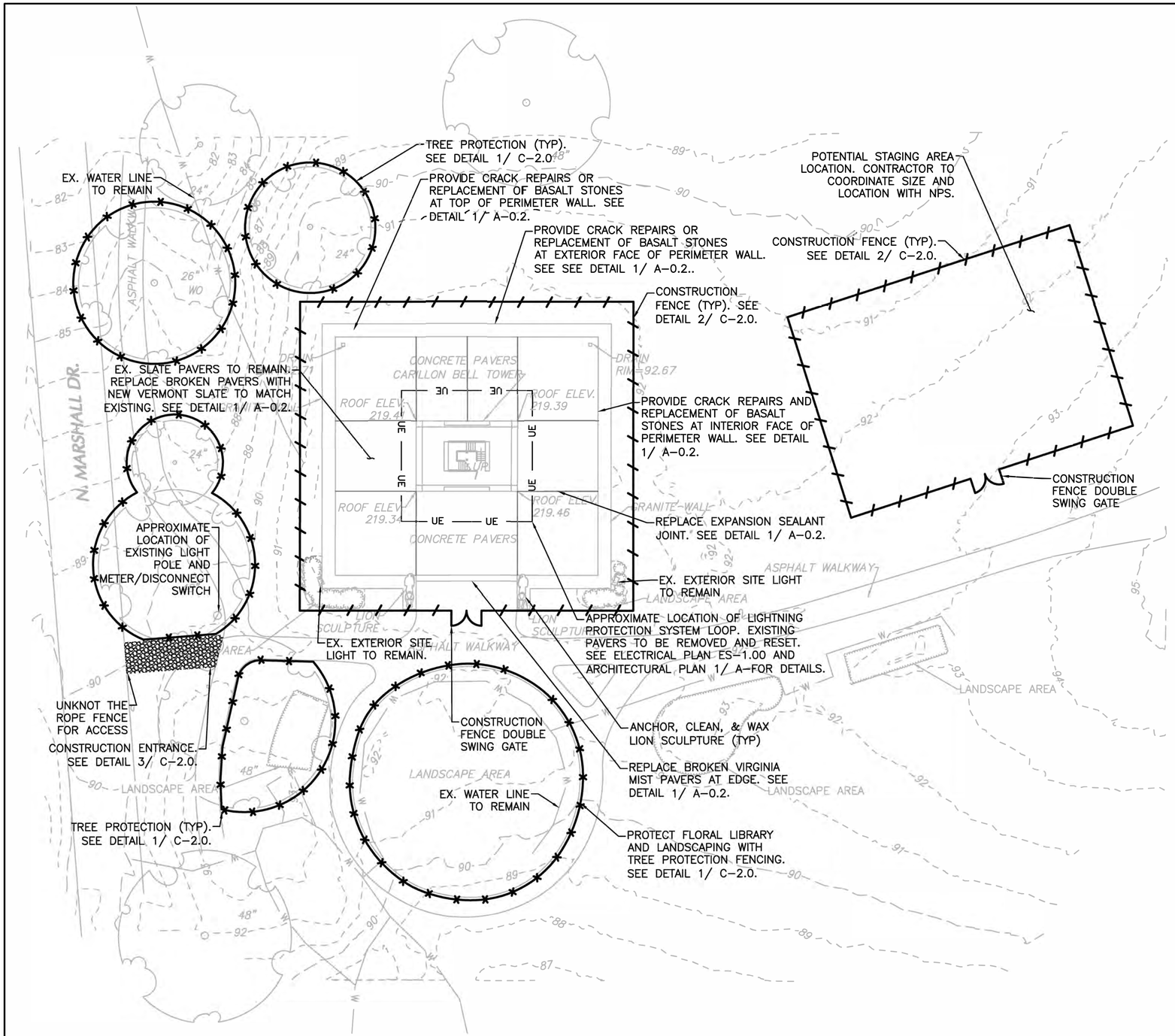
DESIGNED: –
CADD: K. BENITEZ
TECH. REVIEW: E. DONATE
DATE: 2/28/2018

SUB SHEET NO. V-1.0

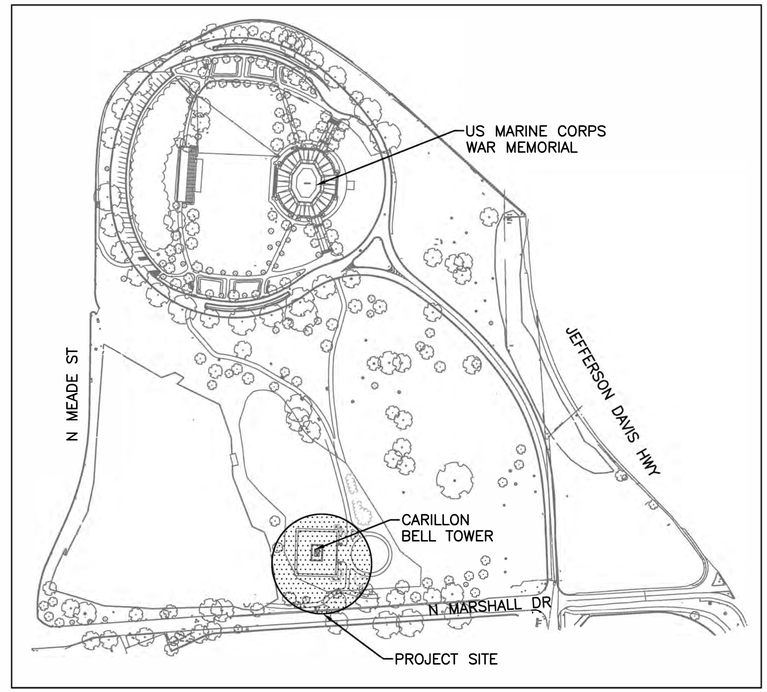
TITLE OF SHEET
TOPOGRAPHIC SURVEY
NETHERLANDS CARILLON
NPS GWMP 214371
100% DRAFT SCHEMATIC DESIGN

DRAWING NO. 850 1400341
PMIS/PKG NO. 214371
SHEET 3 OF 61

10/16/17 15:48 KBENITEZ R20 \\LANGAN.COM\DATA\ARL\DATA0\270059001\PROJECT DATA_DISCIPLINE\SURVEY\CAD\EXISTING\270059001-NETHERLANDS CARILLON BELL TOWER(KB).DWG



SITE LAYOUT PLAN
SCALE (A)



KEY MAP
SCALE (B)

NOTES:

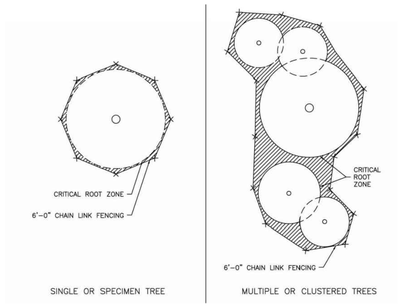
1. EXISTING TOPOGRAPHY IS BASED ON A PLAN TITLED "THE NETHERLANDS CARILLON BELL TOWER – EXISTING CONDITIONS PLAN", PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, DATED AUGUST 31, 2017.
2. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO THE VIRGINIA STATE PLANE COORDINATE SYSTEM NAD 83.
3. ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
4. TREE PROTECTION SHALL BE A MINIMUM OF 6'–0" HIGH CHAIN LINK FENCE MOUNTED ON VERTICAL PIPES DRIVEN 2'–0" INTO THE GROUND, AT APPROXIMATELY 8'–0" TO 10'–0" (MAX.) ON CENTER, WITH NO GATES. SEE DETAIL 01/ C–2.0.
5. TREE PROTECTION FENCING SHALL BE ERECTED AT THE CRITICAL ROOT ZONE OR BEYOND PRIOR TO START OF ANY CLEARING, GRADING, OR OTHER CONSTRUCTION ACTIVITY. SIGNS STATING "NO ENTRY, TREE PROTECTION AREA, CALL 703–228–6557 TO REPORT VIOLATIONS" ARE TO BE POSTED IN BOTH ENGLISH AND SPANISH. TREE PROTECTION SHALL NOT BE REMOVED UNTIL COMPLETION OF ALL CONSTRUCTION ACTIVITY.
6. FOR QUESTIONS RELATED TO TREE PROTECTION OR FOR FIELD INSPECTION OF TREE PROTECTION, CONTACT THE COUNTY'S URBAN FORESTER AT 703–228–6557.

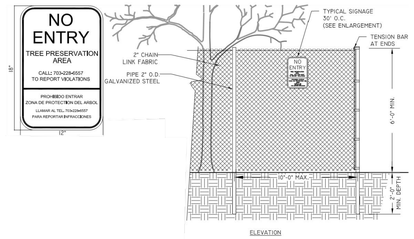
SCALE (B) 2,000 0 2,000 4,000
SCALE OF FEET

SCALE (A) 20 0 20 40
SCALE OF FEET

DESIGNED: –	SUB SHEET NO. C-1.0	TITLE OF SHEET: SITE AND LOGISTICS PLAN	DRAWING NO. 850 1400341
DRAWN: J. CANCHAN		NETHERLANDS CARILLON NPS GWMP 214371 100% DRAFT SCHEMATIC DESIGN	PMIS/PKG NO. 214371
TECH. REVIEW: J. OSORIO			SHEET 4 OF 61
DATE: 2/28/2018			

2/20/18 14:52 KVILKER R22 \\LANGAN.COM\DATA\ARL\DATA0\270059001\PROJECT DATA\CAD\01 SHEETFILES\CIVIL\C-1.0.DWG

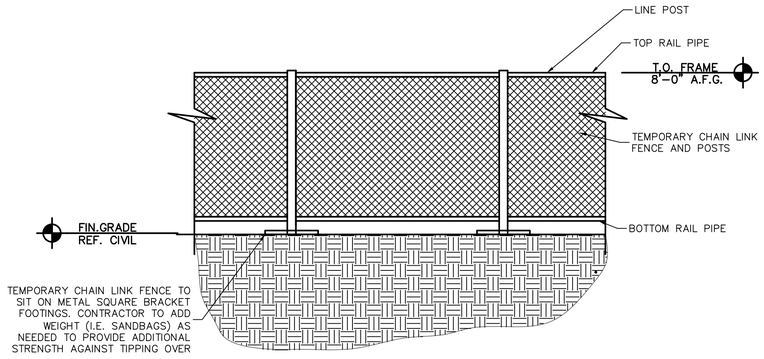




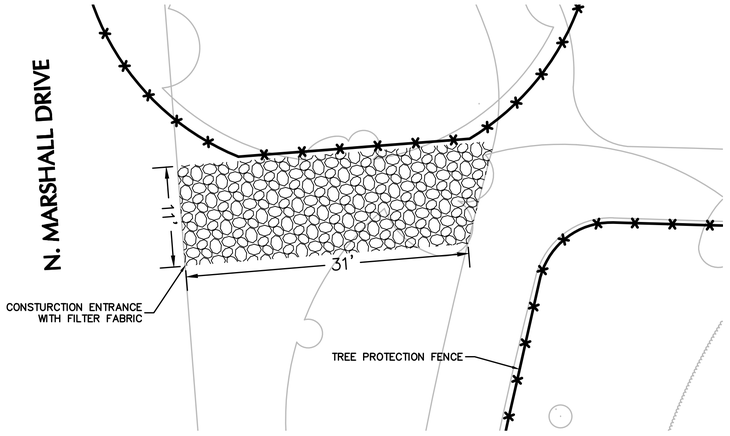
NOTES:

1. SEE SHEET C-1.0 FOR TREE PROTECTION NOTES.

1 C-2.0 TREE PROTECTION
NTS



2 C-2.0 CONSTRUCTION FENCE
NTS

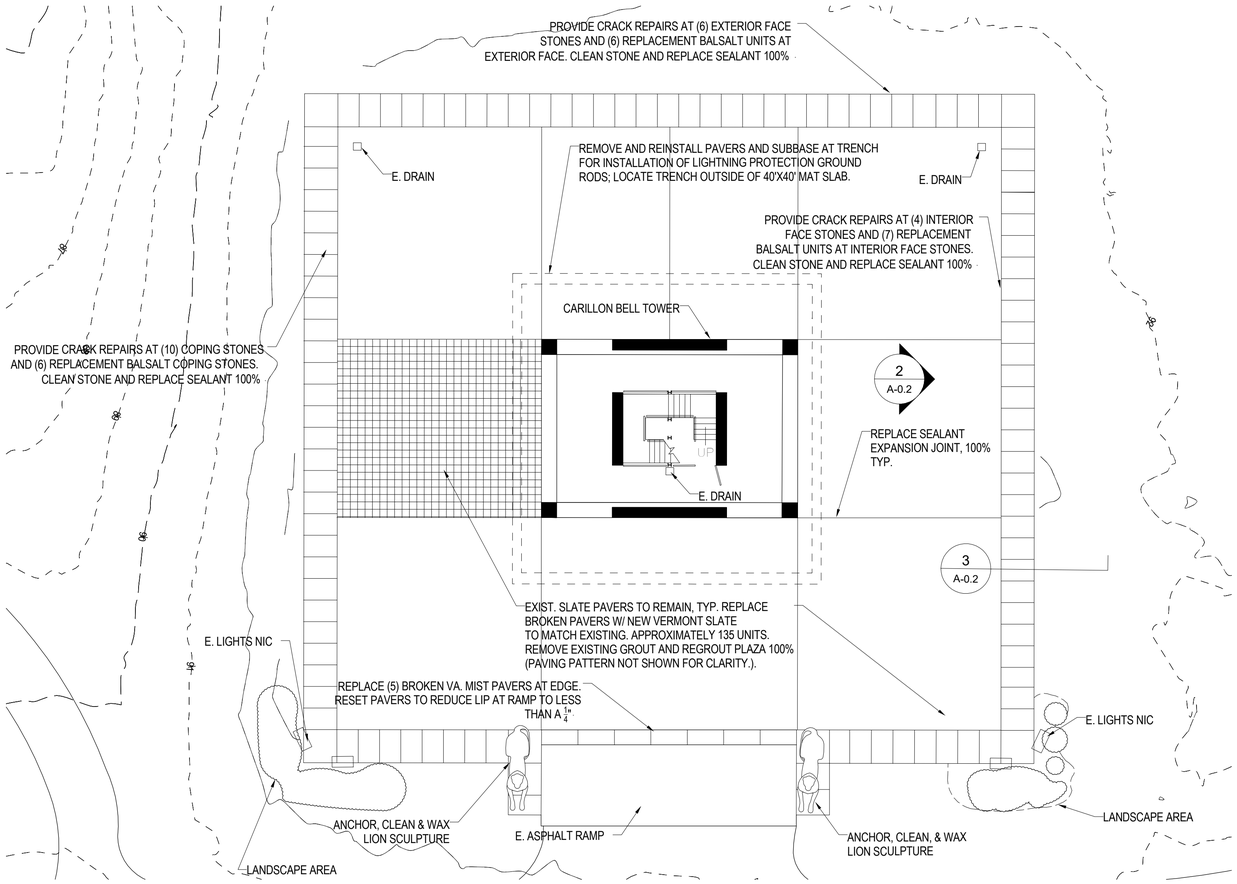


NOTES:

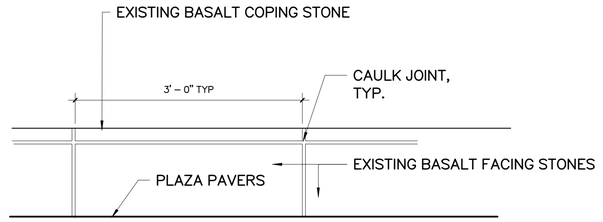
1. VDOT #1 COARSE AGGREGATE (2– TO 3–INCH STONE) SHOULD BE USED.
2. THE AGGREGATE LAYER MUST BE AT LEAST 6 INCHES THICK; A MINIMUM OF THREE INCHES OF AGGREGATE SHOULD BE PLACED IN A CUT SECTION TO GIVE THE ENTRANCE ADDED STABILITY AND TO HELP SECURE FILTER CLOTH SEPARATOR.
3. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REQORKING OF EXISTING STONE AS CONDITIONS DEMAND.

3 C-2.0 CONSTRUCTION ENTRANCE
NTS

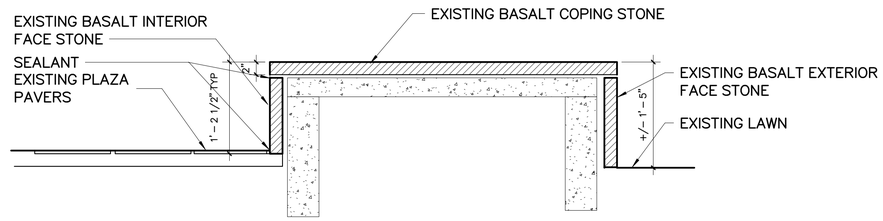
DESIGNED: – CADD K. VILKER TECH. REVIEW: J. OSORIO DATE: 2/28/2018	SUB SHEET NO. C-2.0	TITLE OF SHEET CIVIL DETAILS NETHERLANDS CARILLON NPS GWMP 214371 100% DRAFT SCHEMATIC DESIGN	DRAWING NO. 850 1400341 PMIS/PKG NO. 214371 SHEET 5 OF 61



1 A–0.2 PLAZA SITE PLAN
SCALE Ⓐ



2 A–0.2 TYPICAL ELEVATION AT INT. FACE OF WALL
SCALE Ⓑ



3 A–0.2 SECTION THROUGH WALL
SCALE Ⓑ

SCALE Ⓐ 3 0 3 6 9
SCALE OF FEET

SCALE Ⓑ 1 0 1 2
SCALE OF FEET

DESIGNED: Designer DRAWN: Author TECH. REVIEW: Checker DATE: 2/28/2018	SUB SHEET NO. A-0.2	TITLE OF SHEET PLAZA SITE PLAN & DETAILS Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 140341 PMIS/PKG NO. 214371 SHEET 6 OF 61

C:\Users\katherinef\Documents\1705_NPS Netherlands Carillon_Central Model_KatherineF.rvt
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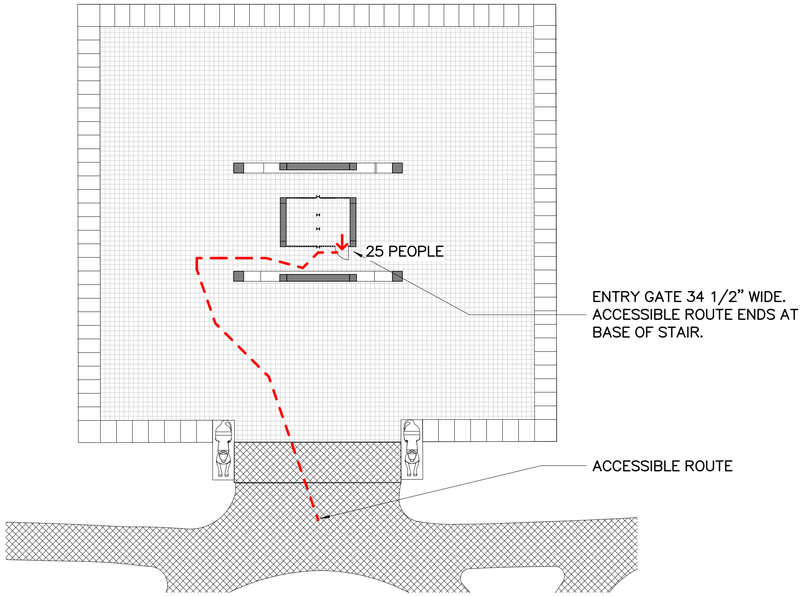
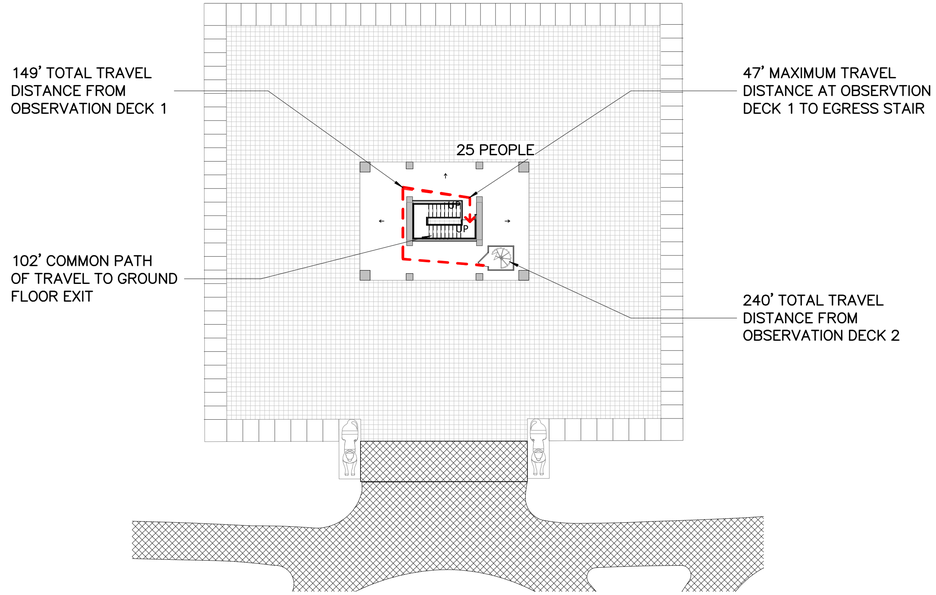
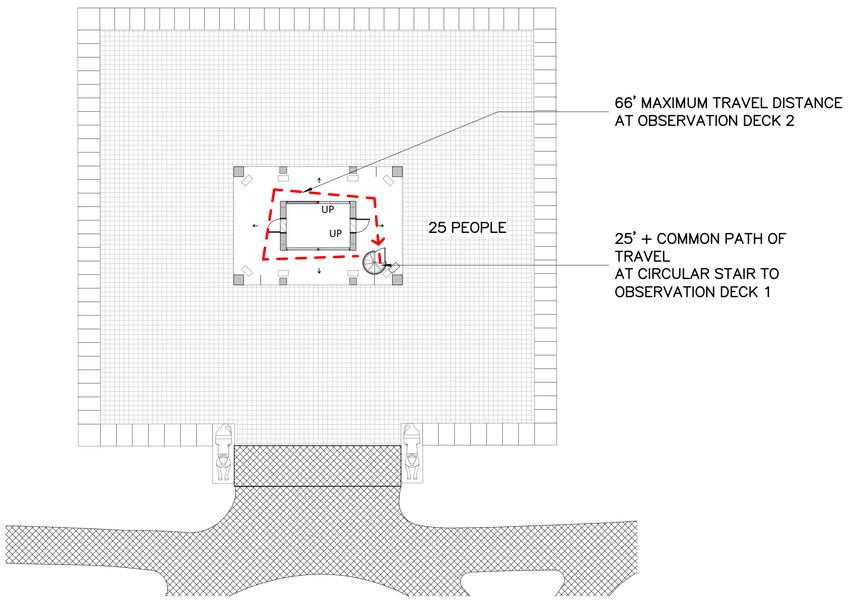


1 A–0.3 SITE PLAN – CODE – PLAZA
SCALE Ⓐ



2 A–0.3 SITE PLAN – CODE – OBSERVATION DECK – 1 (@ 60' – 1/8" FEET ABOVE GRADE)
SCALE Ⓐ



3 A–0.3 SITE PLAN – CODE – OBSERVATION DECK – 2 (@ 84'–3" FEET ABOVE GRADE)
SCALE Ⓐ

USE GROUP: A3
OCCUPANT LOAD: 25 TOTAL MAX. (LSC 11.3.2.4.1)
FIRE RATINGS: NONE REQUIRED

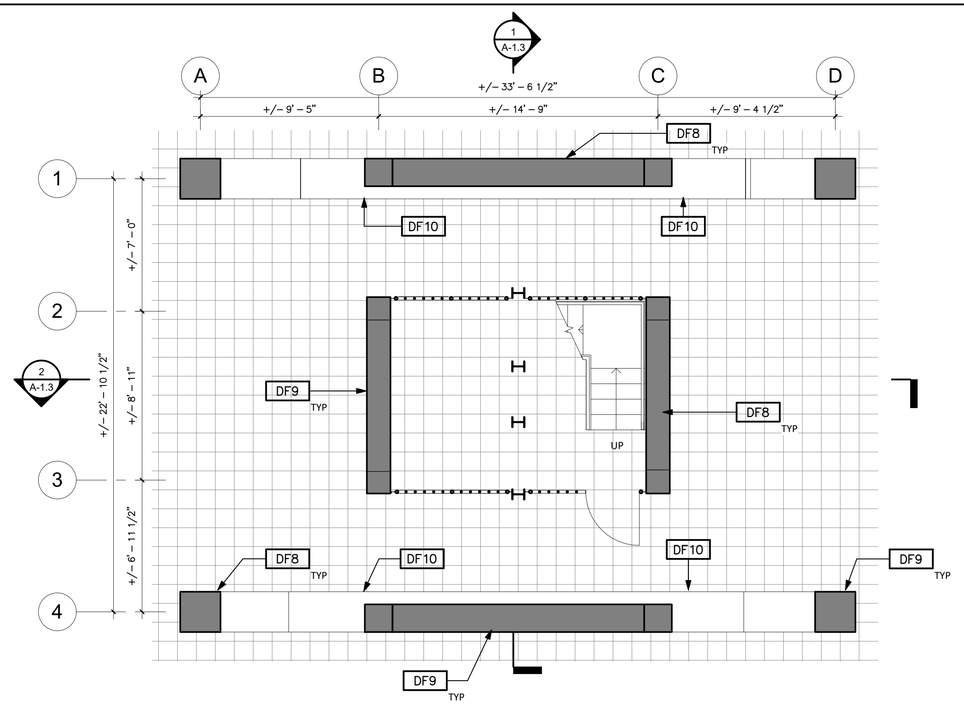
DEFICIENCIES:
- STAIR WIDTH AT LEVELS 17 & 19
- RAILING OPENINGS AT STAIR & OBSERVATION DECKS
- GUARDRAIL HEIGHT AT STAIRS
- OPEN RISERS AT STAIRS
- MAXIMUM PATH OF TRAVEL AND COMMON PATH OF TRAVEL EXCEED MAXIMUM

CODE REFERENCES

NFPA 101 LIFE SAFETY CODE – 2015 EDITION
INTERNATIONAL BUILDING CODE – 2015 EDITION (IBC)
ABAAS ARCHITECTURE BARRIERS ACT ACCESSIBILITY STANDARDS 2015 EDITION (ABA)
INTERNATIONAL EXISTING BUILDING CODE (IEBC)

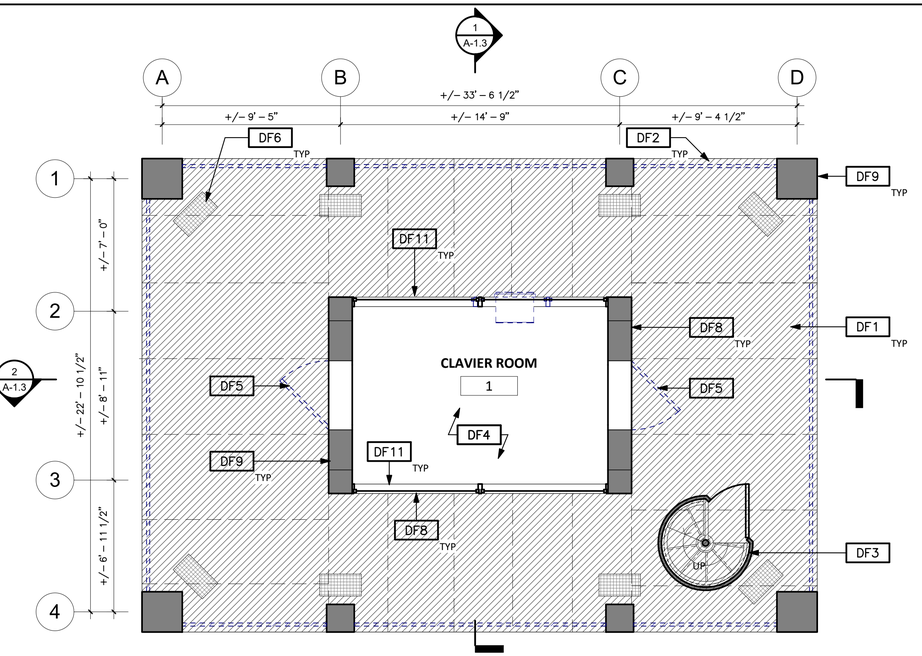
SCALE Ⓐ 16 0 16 32
SCALE OF FEET

DESIGNED: Designer / CADD: IE / TECH. REVIEW: KF, AW / DATE: 2/28/2018	SUB SHEET NO. A–0.3	TITLE OF SHEET: CODE PLAN – SITE Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 140341 / PMIS/PKG NO. 214371 / SHEET 7 OF 61



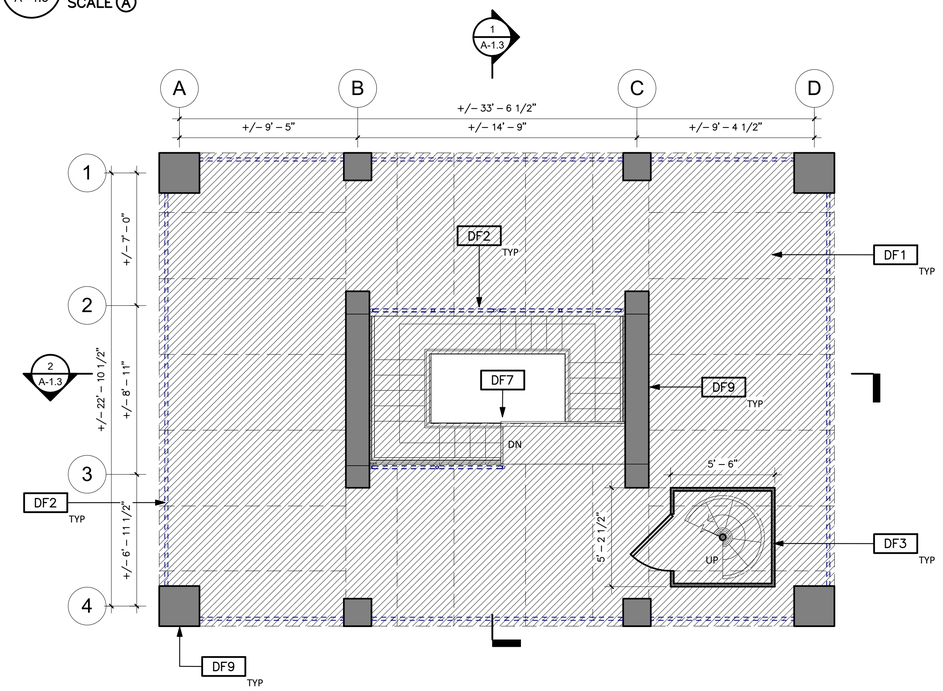
1 A–1.0 LEVEL 0 – PLAZA – DEMO (EL. 0'–0")

SCALE A



3 A–1.0 LEVEL 22 – OBSERVATION DECK – 2 – DEMO (EL. 84'–3")

SCALE A



2 A–1.0 LEVEL 20 – OBSERVATION DECK – 1 – DEMO (EL. 60'– 01/8")

SCALE A

FLOOR PLAN DEMOLITION NOTES

DF1	REMOVE ALL CHECKERED FLOOR PLATES AND SUPPLEMENTARY SUPPORT ANGLES.
DF2	REMOVE ALL RAILINGS FOR TREATMENT AND /OR REPLACEMENT. DOCUMENT LOCATIONS FOR REINSTALLATION.
DF3	REMOVE CORRODED BASE FRAMING FROM MESH STAIR ENCLOSURES. SALVAGE MESH ENCLOSURE FOR REINSTALLATION.
DF4	REMOVE EXISTING FLOORCOVERING.
DF5	REMOVE AND SALVAGE EXISTING DOOR. SALVAGE HARDWARE FOR REINSTALLATION.
DF6	REMOVE LIGHT ENCLOSURE TO REPLACE FLOORPLATE. SALVAGE FOR REINSTALLATION. TYPICAL FOR (8).
DF7	REMOVE TOP FOUR FLIGHTS OF MAIN STAIR ABOVE LEVEL 16, INCLULDING LANDINGS 17, 18,19 AND 20. REMOVE TOP SECTION OF WIDE–FLANGE COLUMNS (APPROXIMATELY 12')
DF8	REMOVE APPLIED SUPPLEMENTAL BASE TRIM AT EXTERIOR WALL.
DF9	REMOVE ALL STEEL CLADDING PANELS 100% FOR TREATMENT OF ALL FACES. DOCUMENT PANEL MARKINGS AND LOCATIONS FOR REINSTALLATION.
DF10	REMOVE EXISTING VENT AND RELOCATE.
DF11	REMOVE EXISTING GLAZING. TYP. FOR ALL GLAZING. SEE PROTOCOL FOR ACM.

SCALE A

4 0 4 8

SCALE OF FEET

DEMOLITION LEGEND

AREA OF REMOVAL

CONSTRUCTION TO BE REMOVED

DESIGNED: Designer	SUB SHEET NO. A-1.0	TITLE OF SHEET: DEMO PLAN – FLOOR PLANS	DRAWING NO. 850 140341
DRAWN: IE			PMIS/PKG NO. 214371
TECH. REVIEW: KF, AW		Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	SHEET 8 OF 61
DATE: 2/28/2018			

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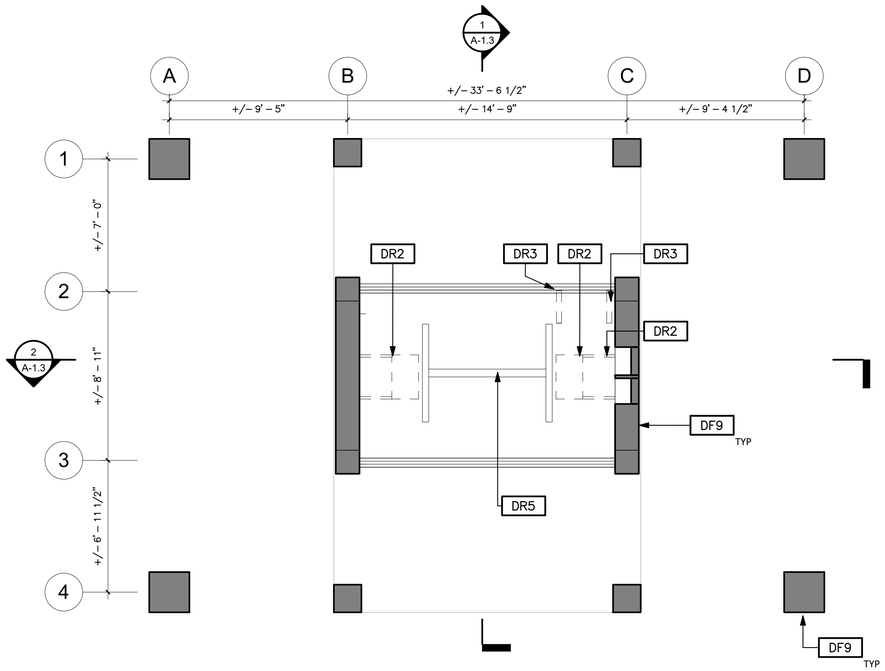
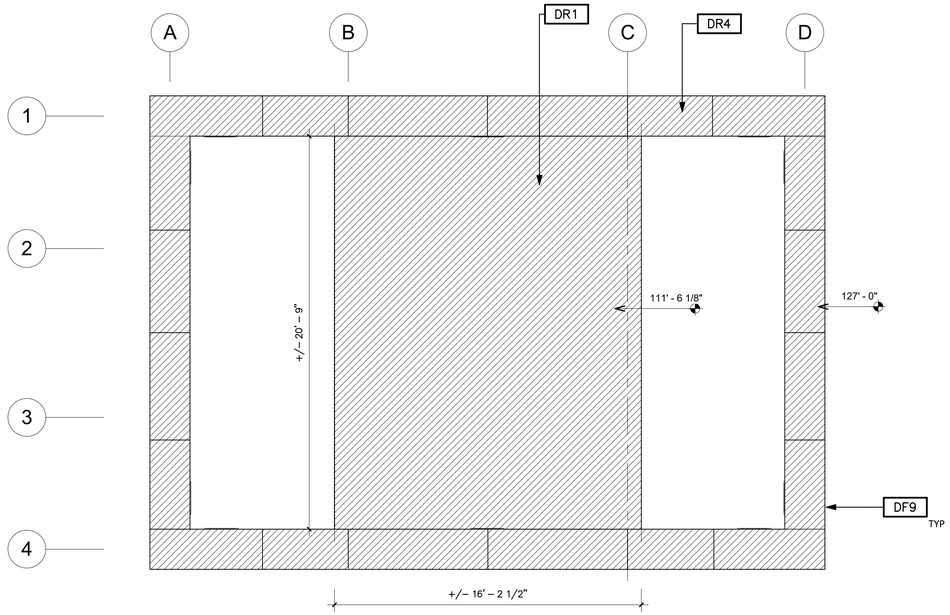
ROOF PLAN DEMOLITION NOTES

DF9	REMOVE ALL STEEL CLADDING PANELS 100% FOR TREATMENT OF ALL FACES. DOCUMENT PANEL MARKINGS AND LOCATIONS FOR REINSTALLATION.
DR2	REMOVE EXISTING ROOF HATCHES AND RAILS FROM ROOF
DR3	REMOVE DETERIORATED APPLIED METAL CHANNEL FROM TOP SURFACE OF ROOF
DR5	EXISTING BELL FRAMING TO REMAIN



1 A–1.1 LEVEL 23 – CLAVIER ROOF – DEMO
SCALE Ⓐ



2 A–1.1 LEVEL 27 – TOP OF CARILLON – DEMO
SCALE Ⓐ

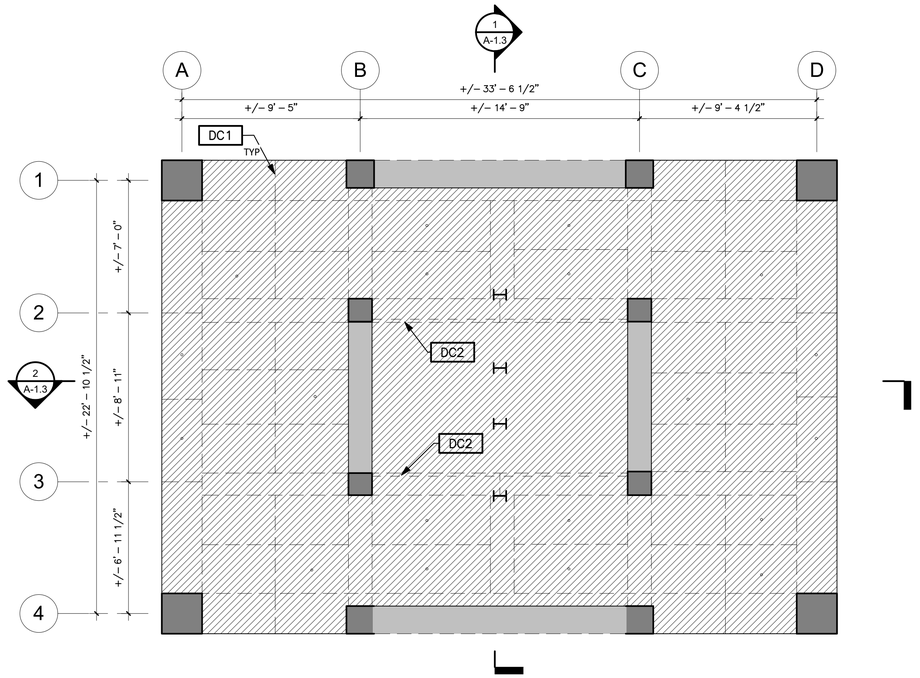
SCALE Ⓐ 4 0 4 8
SCALE OF FEET

DEMOLITION LEGEND

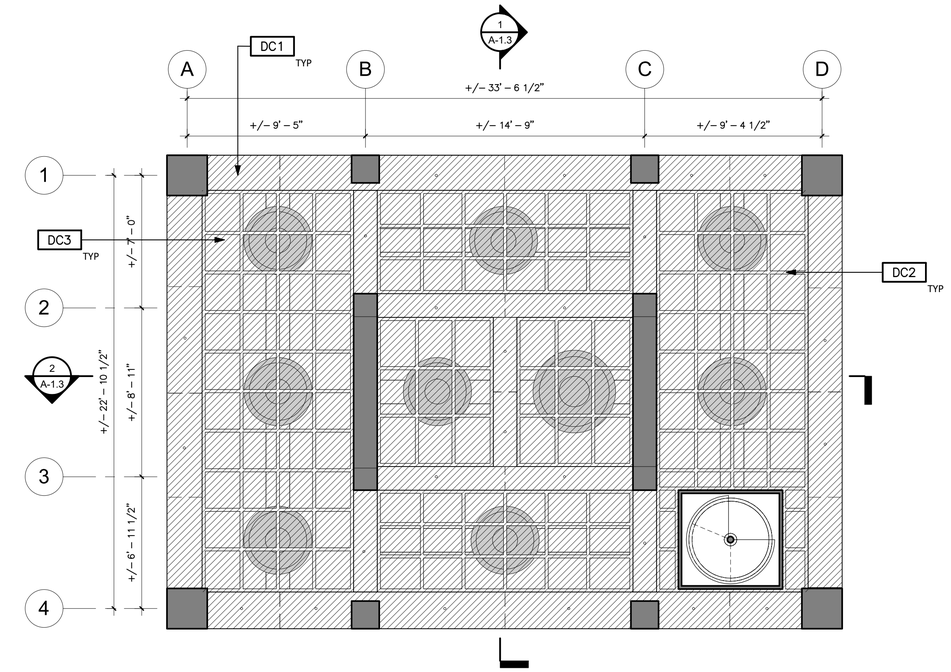
AREA OF REMOVAL

CONSTRUCTION TO BE REMOVED

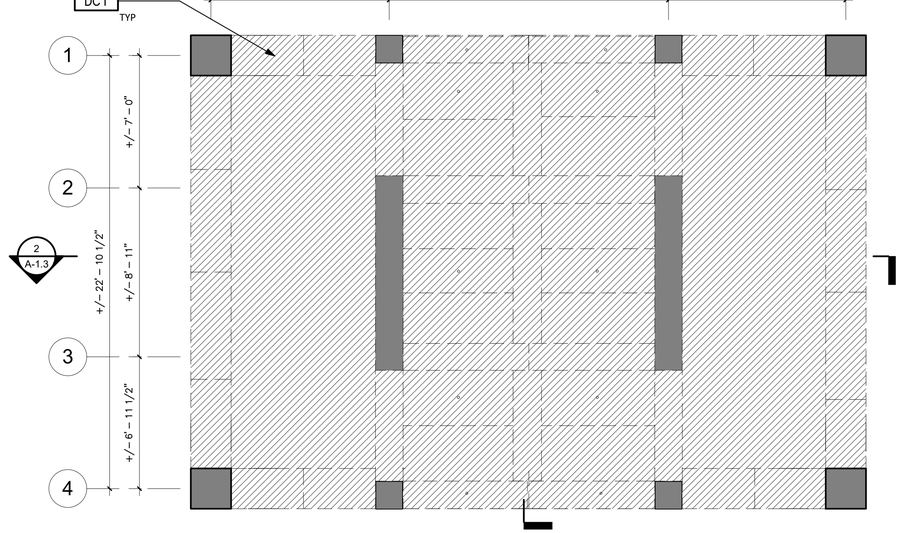
DESIGNED: Designer	SUB SHEET NO. A-1.1	TITLE OF SHEET: DEMO PLAN – ROOF PLANS	DRAWING NO. 850 140341
DRAWN: IE			PMIS/PKG NO. 214371
TECH. REVIEW: KF, AW		Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	SHEET 9 OF 61
DATE: 2/28/2018			



1 A–1.2 RCP AT LEVEL 15 – DEMO
SCALE Ⓐ



2 A–1.2 RCP AT LEVEL 20 – OBSERVATION DECK 1 – DEMO
SCALE Ⓐ



3 A–1.2 RCP TOP OF CARILLON & SOUNDBOARD – DEMO
SCALE Ⓐ

CEILING PLAN DEMOLITION NOTES

DC1 REMOVE ALL EXISTING STEEL CEILING AND SOFFIT PANELS 100% TO REMOVE CORROSION AND RECEIVE METALIZING ON ALL FACES. DOCUMENT PANEL MARKINGS AND LOCATIONS FOR REINSTALLATION.

DC2 REMOVE SUPPLEMENTAL STEEL ANGLE AT CEILING

DC3 REMOVE EXISTING OPEN MESH CEILINGS AND SUPPLEMENTARY SUPPORT STEEL. SEE STRUCTURAL DWG.

SCALE Ⓐ 4 0 4 8
SCALE OF FEET

DEMOLITION LEGEND

AREA OF REMOVAL

CONSTRUCTION TO BE REMOVED

DESIGNED: Designer	SUB SHEET NO. A-1.2	TITLE OF SHEET: DEMO PLANS – REFLECTED CEILING PLANS	DRAWING NO. 850 140341
CADD: IE		Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	PMIS/PKG NO. 214371
TECH. REVIEW: KF, AW			SHEET 10 OF 61
DATE: 2/28/2018			

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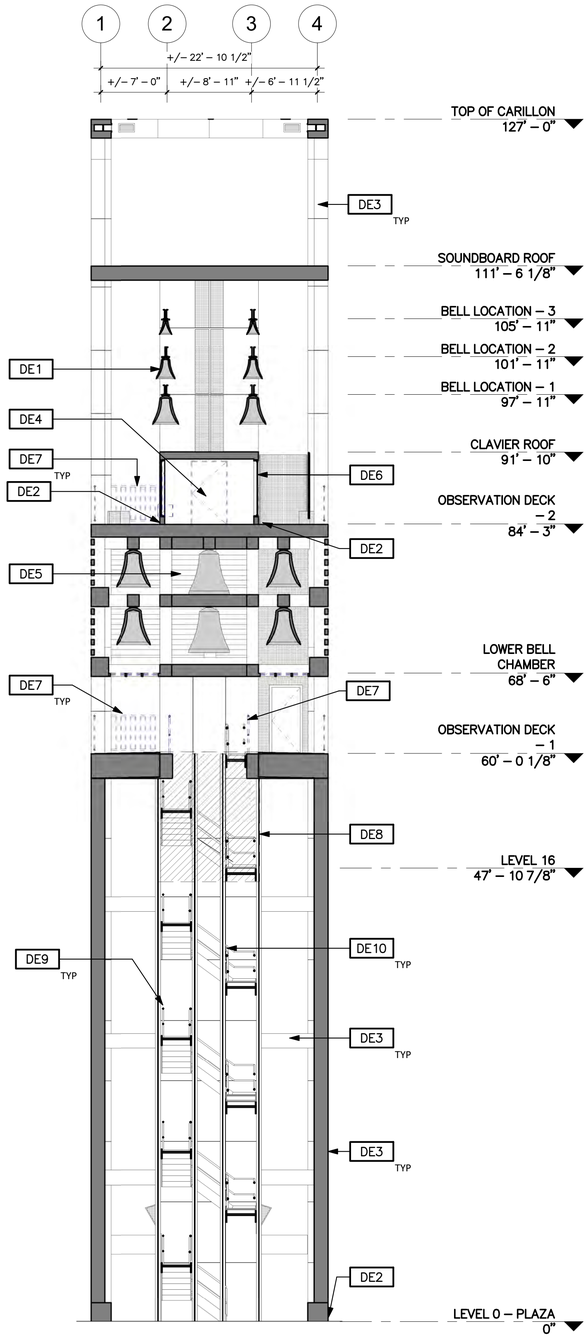
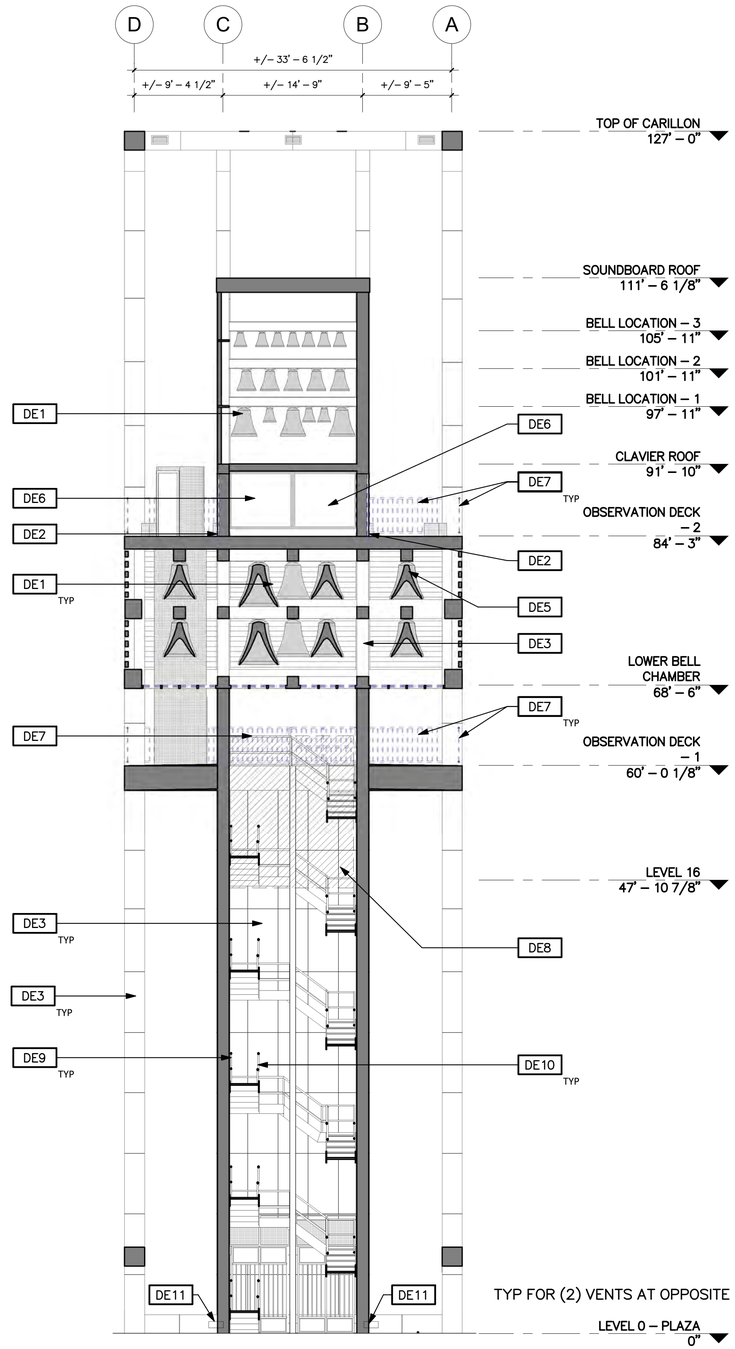


1 / A–1.3 SECTION A LOOKING NORTH
SCALE Ⓐ



TYP FOR (2) VENTS AT OPPOSITE ELEVATION

2 / A–1.3 SECTION B LOOKING EAST
SCALE Ⓐ

SECTION DEMOLITION NOTES

DE1 REMOVE BELLS AND STRUCTURAL SUPPORT I –BEAMS. COORDINATE REMOVAL OF BELLS WITH FOUNDRY. (RESTORATION OF BELLS BY OTHERS.)

DE2 REMOVE APPLIED SUPPLEMENTAL BASE TRIM AT EXTERIOR WALL.

DE3 REMOVE ALL STEEL CLADDING PANELS 100% TO REMOVE CORROSION AND RECEIVE METALIZING TREATMENT ON ALL FACES. DOCUMENT PANEL MARKINGS AND LOCATIONS FOR REINSTALLATION. SEE SPECIFICATIONS.

DE4 REMOVE EXISTING DOOR AND SALVAGE HARDWARE FOR REINSTALLATION.

DE5 REMOVE LOUVERS TO ACCESS PANELS AT INTERIOR BELL CHAMBER AND SALVAGE FOR REINSTALLATION.

DE6 REMOVE EXISTING GLAZING. TYP. FOR ALL GLAZING. SEE PROTOCOL FOR ACM.

DE7 REMOVE EXISTING RAILINGS AT OBSERVATION DECK FOR TREATMENT AND/OR REPLACEMENT; DOCUMENT LOCATIONS FOR REINSTALLATION

DE8 REMOVE TOP FOUR FLIGHTS OF MAIN STAIR ABOVE LEVEL 16, INCLULDING LANDINGS 17, 18,19 AND 20. REMOVE TOP SECTION OF WIDE–FLANGE COLUMNS (APPROXIMATELY 12')

DE9 REMOVE EXISTING RAILINGS AT OUTER STAIR HANDRAIL FOR MODIFICATION; DOCUMENT LOCATIONS FOR REINSTALLATION.

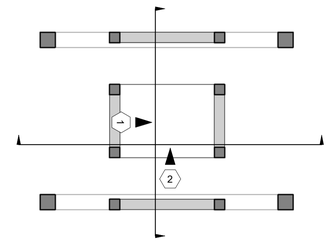
DE10 REMOVE EXISTING RAILINGS AT INNER STAIR HANDRAIL FOR REPLACEMENT.

DE11 REMOVE AND RELOCATE EXISTING VENT IN NEW LOCATION ALONG BASE BOX BEAM.

DEMOLITION LEGEND

AREA OF REMOVAL

CONSTRUCTION TO BE REMOVED



KEY PLAN

SCALE Ⓐ 8 0 8 16

SCALE OF FEET

DESIGNED: Designer DRAWN: IE TECH. REVIEW: KF, AW DATE: 2/28/2018	SUB SHEET NO. A-1.3	TITLE OF SHEET DEMO PLANS – SECTION Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 140341 PMIS/PKG NO. 214371 SHEET 11 OF 61

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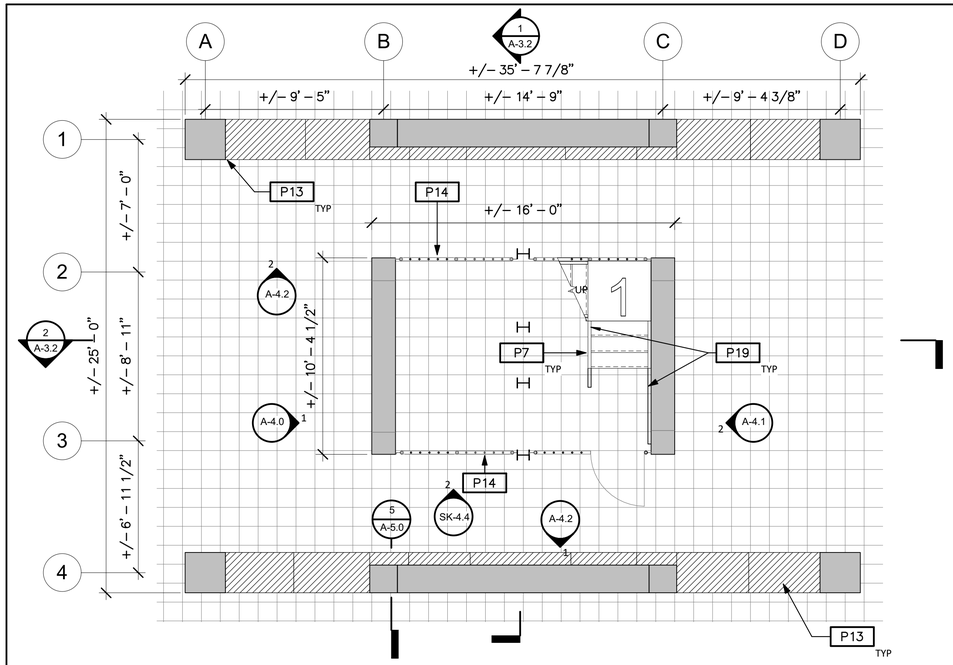
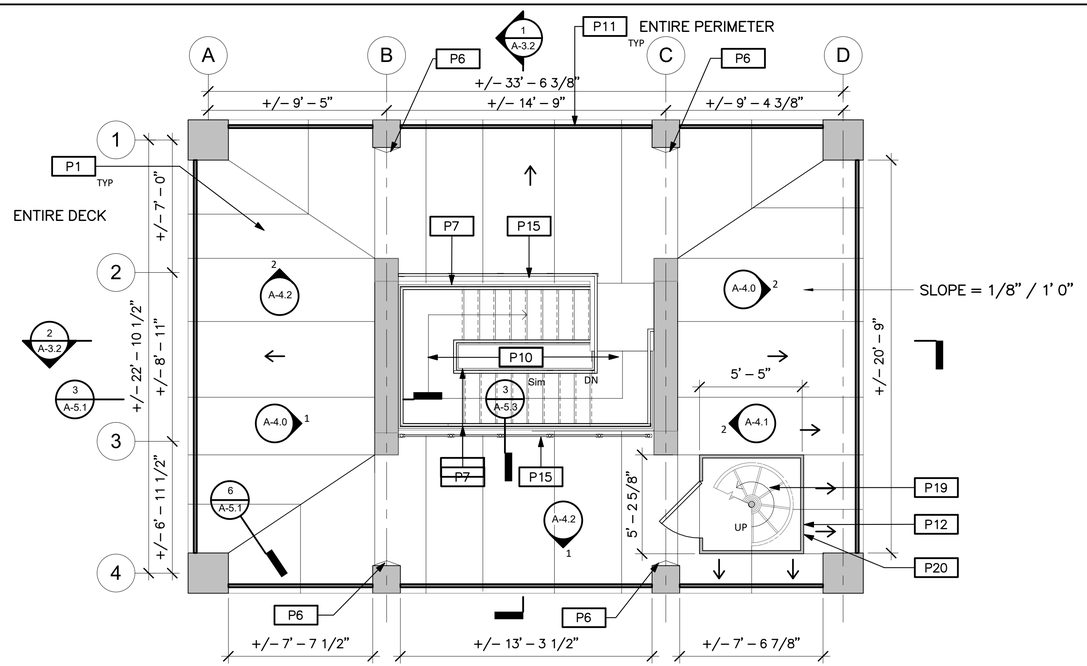
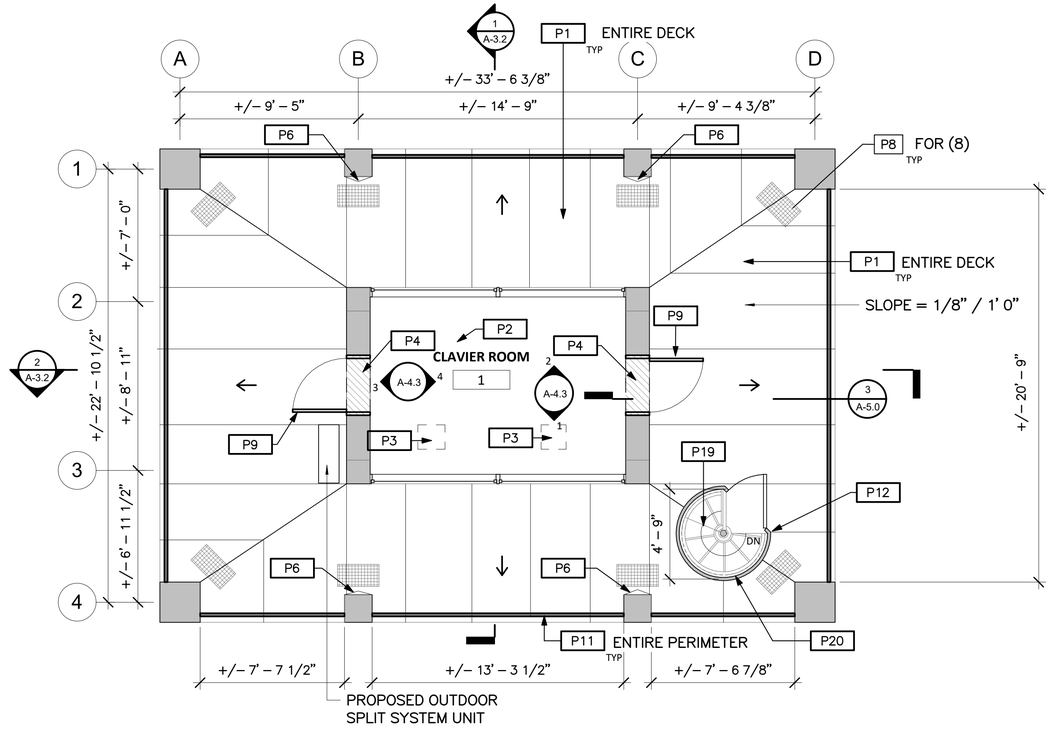


1 / A–2.1 LEVEL 0 — PLAZA — REPAIR
SCALE Ⓐ



2 / A–2.1 EXISTING OBSERVATION DECK — 1 — REPAIR
SCALE Ⓐ



3 / A–2.1 EXISTING OBSERVATION DECK — 2 — REPAIR
SCALE Ⓐ

FLOOR PLAN REPAIR NOTES

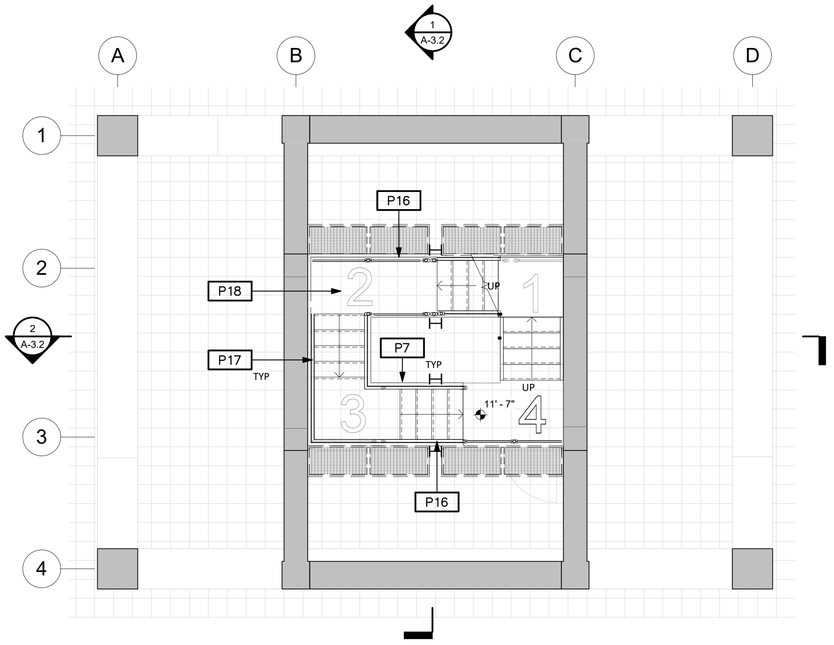
P1	INSTALL NEW GALVANIZED STEEL CHECKERED FLOORPLATE, PTD.; DETAILS A–5.1
P2	PROVIDE RAISED FLOOR WITH NEW FLOORING AS INDICATED.DETAIL 1/A–5.1
P3	PROVIDE RAISED ACCESS HATCH FLUSH WITH FLOOR. CLEAN AND PAINT EXISTING GRILL.
P4	PROVIDE NEW CHECKEREDPLATE THRESHOLD; DETAIL 1/A–5.1
P6	PROVIDE CRICKET STAINLESS STEEL FLASHING AT COLUMN WHERE INDICATED; SEE DETAIL
P7	PROVIDE NEW GUARDRAIL AND HANDRAIL AT STAIR; SEE DETAIL A–5.3
P8	WIRE BRUSH AND PAINT SALVAGED LIGHT ENCLOSURES AND REINSTALL AFTER INSTALLATION OF NEW FLOOR PLATE. TYPICAL FOR (8)
P9	PROVIDE NEW PAINTED HOLLOW CORE STEEL DOOR & FRAME TO MATCH EXISTING WITH NEW LOCK, HINGES, AND THRESHOLD; REFURBISH EXISTING OPERATING LEVERS.
P10	PROVIDE NEW STAIR SECTIONS FROM LEVEL 16 TO OBSERVATION DECK AS INDICATED ON PLAN. SEE 4/ S–4.1 FOR CONNECTION DETAIL.
P11	PROVIDE NEW RAILING AT OBSERVATION DECKS WITH 4" SPACE PICKETS TO MATCH EXISTING. SEE DETAILS A–5.3
P12	REPLACE BASE STEEL FRAMING AT MESH STAIR ENCLOSURES WITH GALVANIZED STEEL, PTD. COORDINATE BASE LEVEL AND DOOR WITH PITCHED FLOOR PLATES.
P13	TREAT ALL STEEL CLADDING PANELS WITH METALIZING AND HIGH–PERFORMANCE COATING AS INDICATED AND REINSTALL.
P14	PREPARE AND PAINT STEEL PICKET ENCLOSURE AND GATE
P15	PROVIDE NEW GUARDRAIL AT OBSERVATION DECK STAIR. SEE DETAIL 3/A–5.3
P19	BLAST / WIRE BRUSH CLEAN AND REPAINT ALL SURFACES OF EXISTING MAIN STAIR AND CIRCULAR STAIR
P20	PREPARE AND PAINT MESH ENCLOSURE

REPAIR LEGEND

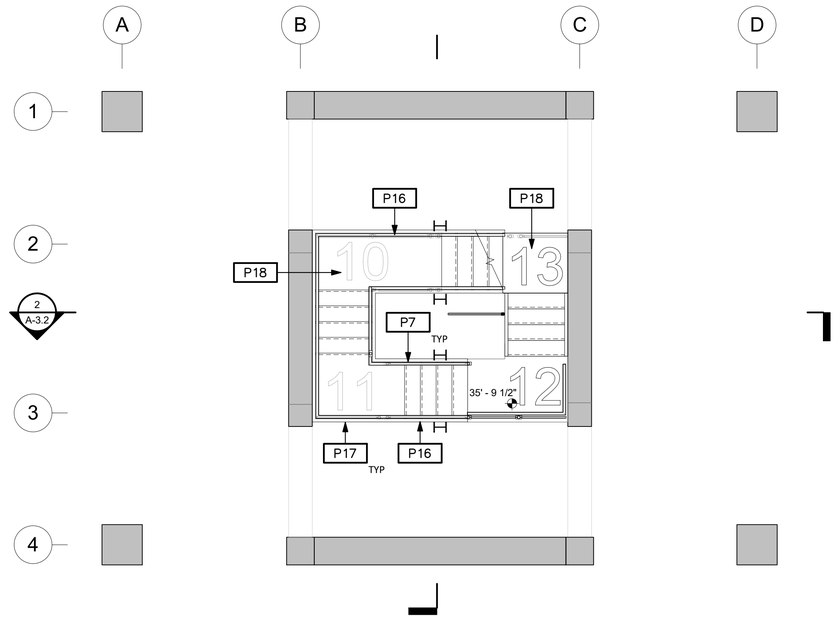
- REPLACE PANEL
- EXISTING DECK MOUNTED LIGHT ENCLOSURE–REINSTALL
- (E) WALL / COLUMN / BEAM

SCALE Ⓐ 4 0 4 8
SCALE OF FEET

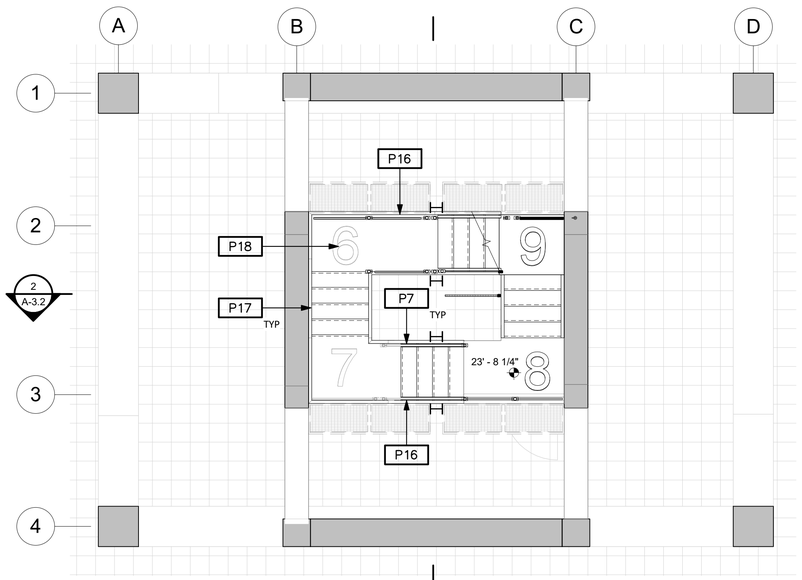
DESIGNED: Designer / IE	SUB SHEET NO. A-2.1	TITLE OF SHEET: REPAIR PLAN — FLOOR PLAN	DRAWING NO. 850 140341
TECH. REVIEW: KF, AW		Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	PMIS/PKG NO. 214371
DATE: 2/28/2018			SHEET 12 OF 61



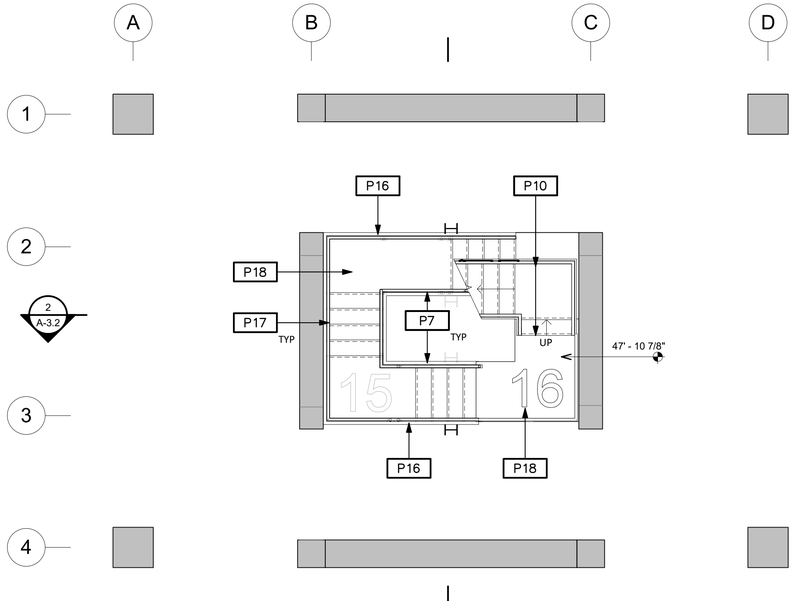
1 / A-2.2 LEVEL 1 – 4 – REPAIR PLAN (EL. +/– 11' – 7")
SCALE Ⓐ



4 / A-2.2 8 – 12 – REPAIR PLAN (EL. +/– 35' – 9 1/2")
SCALE Ⓐ



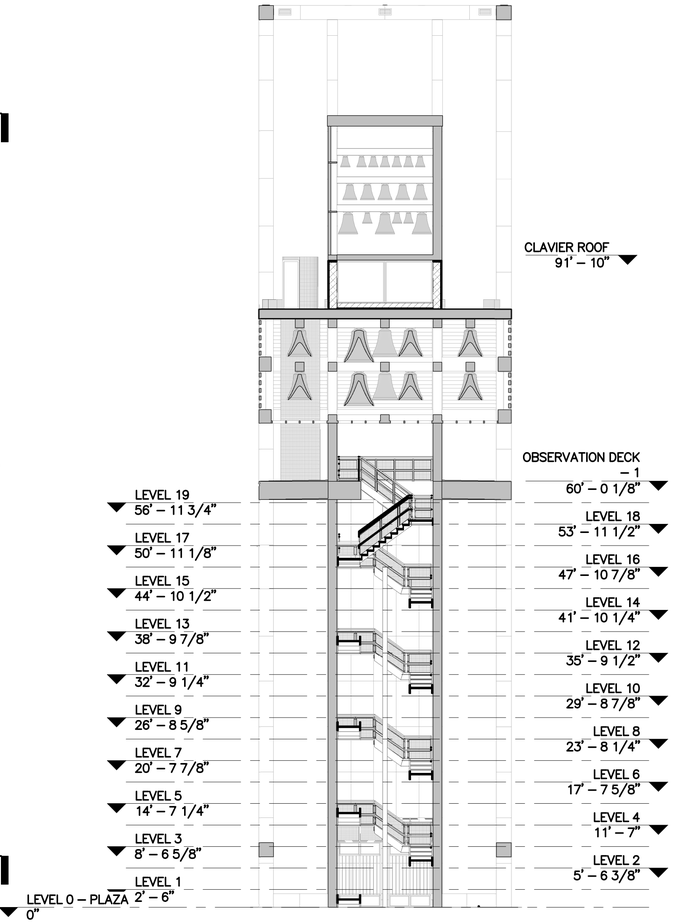
2 / A-2.2 LEVEL 4 – 8 – REPAIR PLAN (EL. +/– 23' – 8 1/4")
SCALE Ⓐ



5 / A-2.2 LEVEL 13–16 REPAIR PLAN (EL.+/–47'–10 7/8")
SCALE Ⓐ

FLOOR PLAN REPAIR NOTES

P7	PROVIDE NEW GUARDRAIL AND HANDRAIL AT STAIR; SEE DETAIL A–5.3
P10	PROVIDE NEW STAIR SECTIONS FROM LEVEL 16 TO OBSERVATION DECK AS INDICATED ON PLAN. SEE 4/ S–4.1 FOR CONNECTION DETAIL.
P16	ADD GALVANIZED STEEL PIPE GUARDRAIL AT 42", PTD. SEE DETAIL 2/A–5.3 AND 6/5.3
P17	MODIFY OUTER HANDRAIL WITH MESH INSERTS AS INDICATED. SEE DETAIL 2/A–5.3 AND 6/5.3
P18	PROVIDE NEW CHECKEREDPLATE LANDING AT STAIR



3 / A–2.2 KEYPLAN
SCALE: NTS

SCALE Ⓐ 4 0 4 8
SCALE OF FEET

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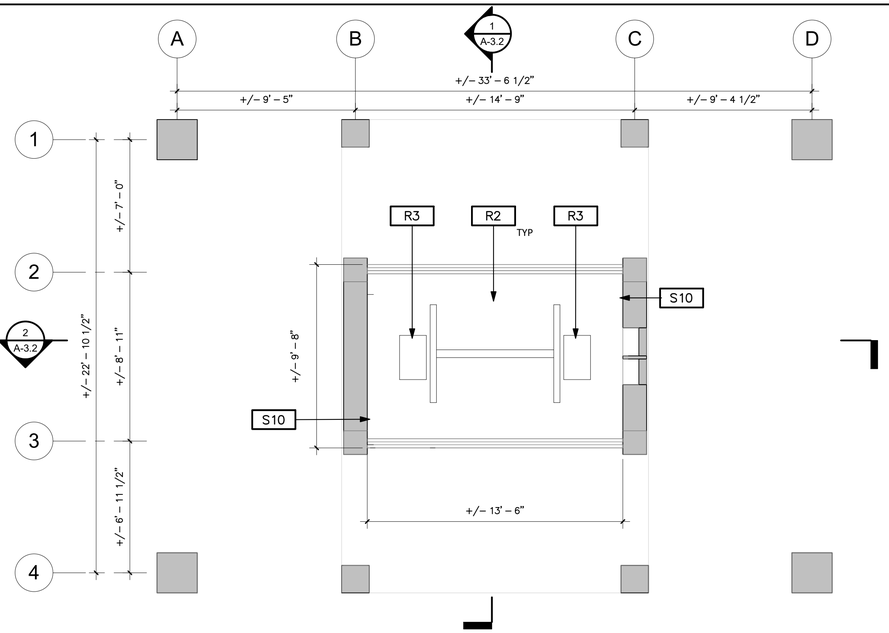
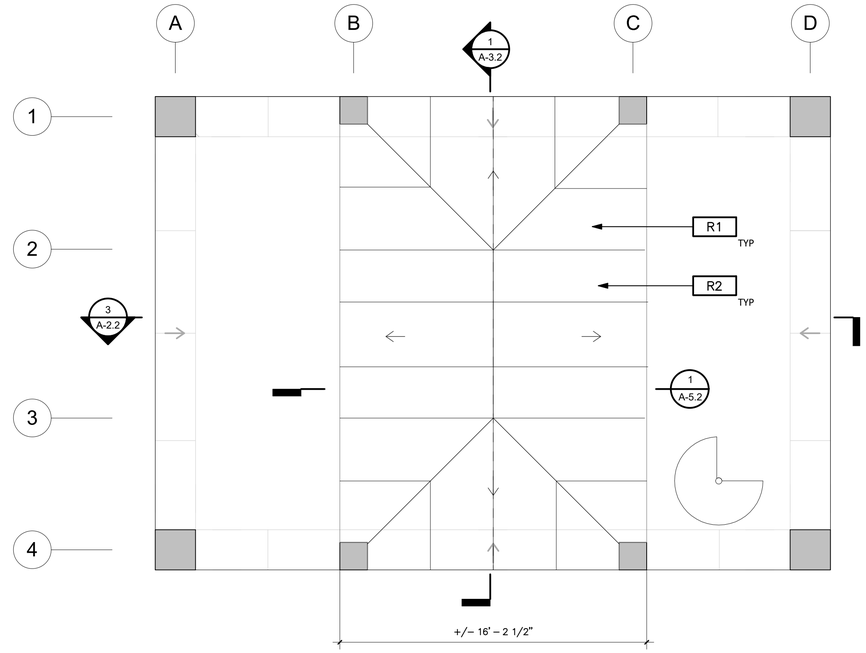
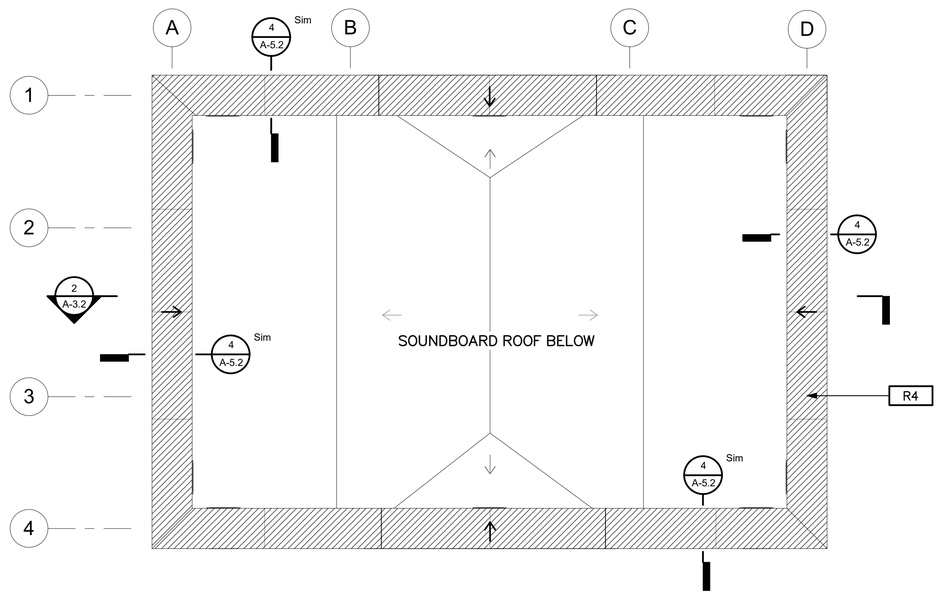
DESIGNED: Designer	SUB SHEET NO. A-2.2	TITLE OF SHEET: REPAIR PLAN – STAIR CORE	DRAWING NO. 850 140341
DRAWN: Author		Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	PMIS/PKG NO. 214371
TECH. REVIEW: Checker			SHEET 13 OF 61
DATE: 2/28/2018			



1 A–2.3 LEVEL 23 – CLAVIER ROOF – PLAN
SCALE A



2 A–2.3 LEVEL 26 – SOUNDBOARD ROOF PLAN
SCALE A



3 A–2.3 LEVEL 27 – TOP OF CARILLON – PLAN
SCALE A

ROOF PLAN REPAIR NOTE

R1 PROVIDE NEW GALVANIZED CHECKEREDPLATE ROOF PITCHED TO DRAIN 1/8" PER FOOT. SEE STRUCTURAL FRAMING PLANS AND DETAILS A–5.2
R2 PROVIDE LIQUID APPLIED MEMBRANE ROOF.
R3 PROVIDE 3/16" GALVANIZED STEEL PLATE INFIL PANEL AT EXIST. HATCH.
S10 PROVIDE LADDER TO SECONDARY LANDING FOR BELL MAINTENANCE

SCALE A 4 0 4 8
SCALE OF FEET

REPAIR LEGEND

REPLACE PANEL
EXISTING DECK MOUNTED LIGHT ENCLOSURE–REINSTALL
(E) WALL / COLUMN / BEAM

DESIGNED: Designer GADD IE	SUB SHEET NO. A-2.3	TITLE OF SHEET REPAIR PLAN – ROOF PLANS	DRAWING NO. 850 140341
TECH. REVIEW: KF, AW		Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	PMIS/PKG NO. 214371
DATE: 2/28/2018			SHEET 14 OF 61

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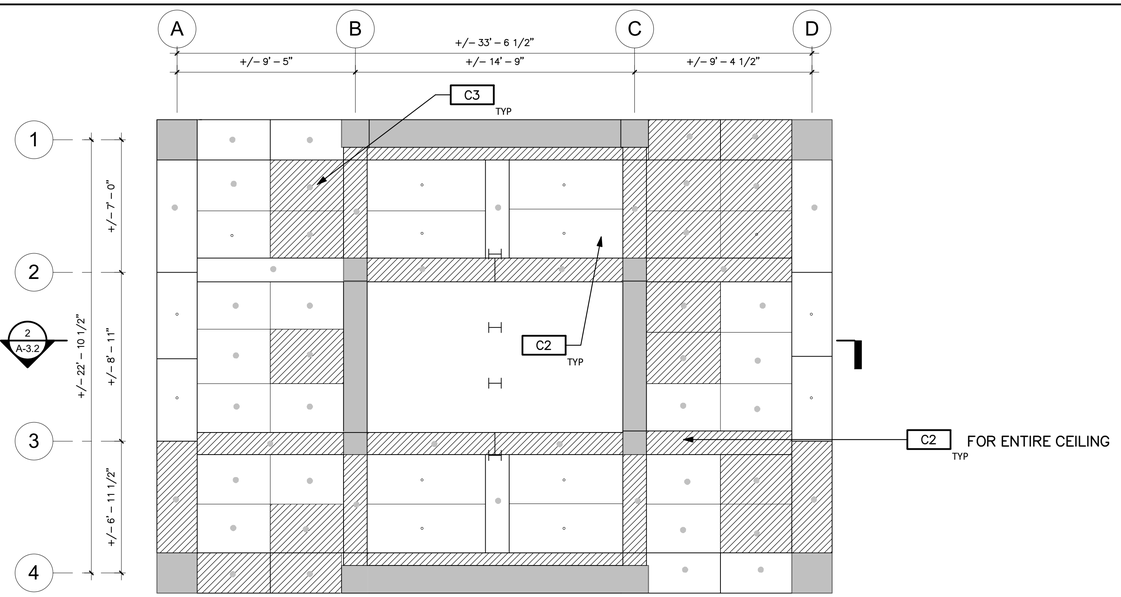
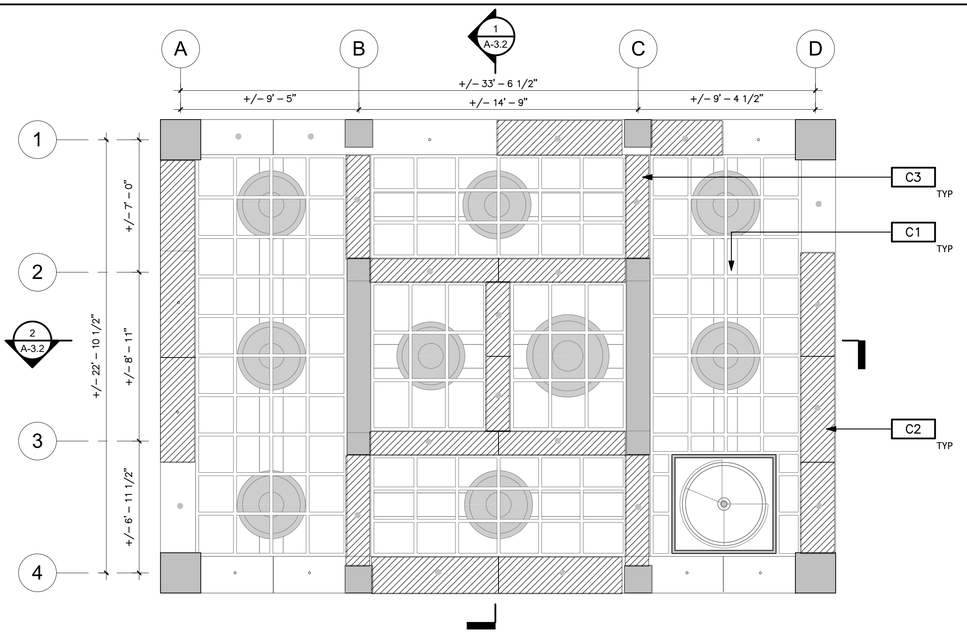
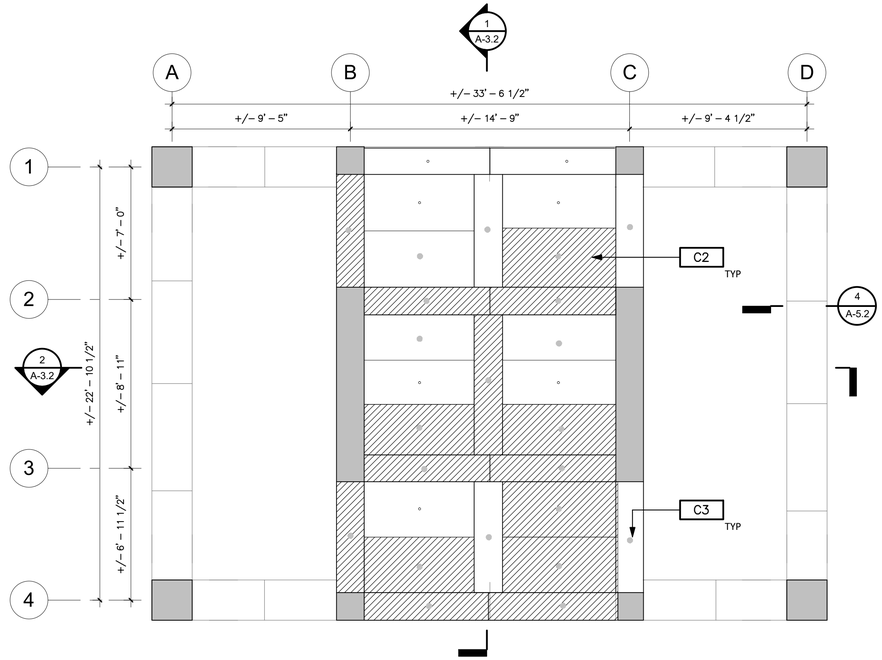
2/26/2018 5:54:44 PM



1 / A–2.4 RCP AT LEVEL 15 – REPAIR
SCALE Ⓐ



2 / A–2.4 RCP AT LEVEL 20 – OBSERVATION DECK 1 – REPAIR
SCALE Ⓐ



3 / A–2.4 RCP TOP OF CARILLON & SOUNDBOARD– REPAIR
SCALE Ⓐ

CEILING PLAN REPAIR NOTES

C1 INSTALL NEW PAINTED GALVANIZED STEEL BAR GRATING AND SUPPLEMENTAL FRAMING, PTD. SEE DETAIL 6/ A–5.2
C2 PAINT CEILING
C3 ADD WEEP HOLE TO PANEL

SCALE Ⓐ 4 0 4 8
SCALE OF FEET

CEILING REPAIR LEGEND

- REPLACE PANEL
- REPLACE MESH CEILING
- EXISTING WALL
- EXISTING WEEP
- NEW WEEP (C3)

DESIGNED: Designer / KF	SUB SHEET NO. A-2.4	TITLE OF SHEET: REPAIR PLAN – REFLECTED CEILING PLANS	DRAWING NO. 850 140341
TECH. REVIEW: KF, AW		Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	PMIS/PKG NO. 214371
DATE: 2/28/2018			SHEET 15 OF 61

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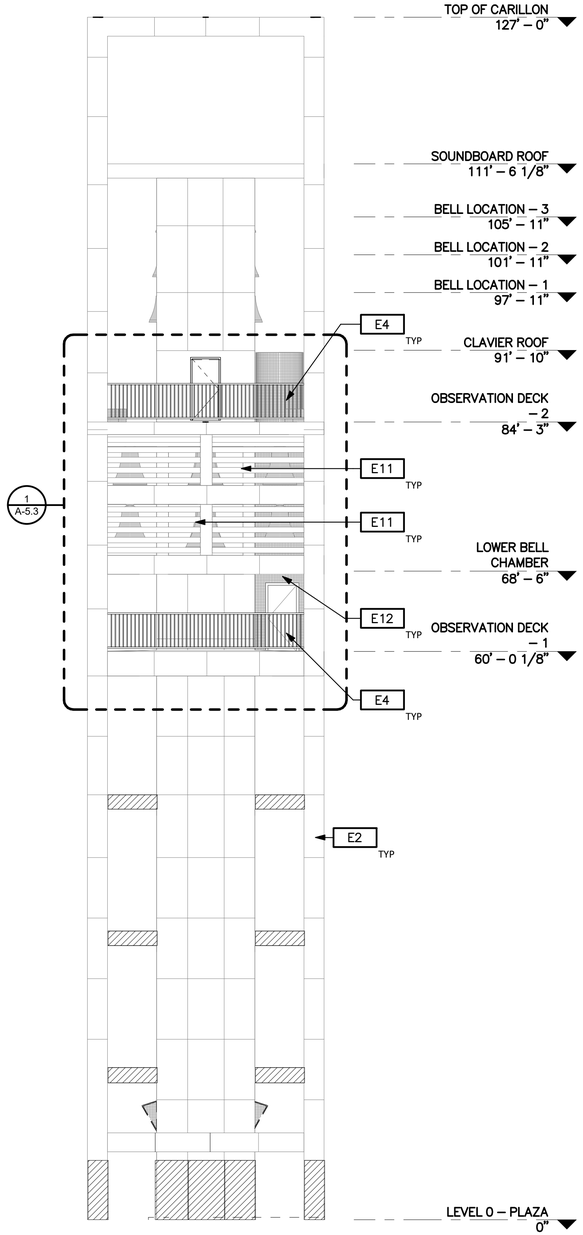
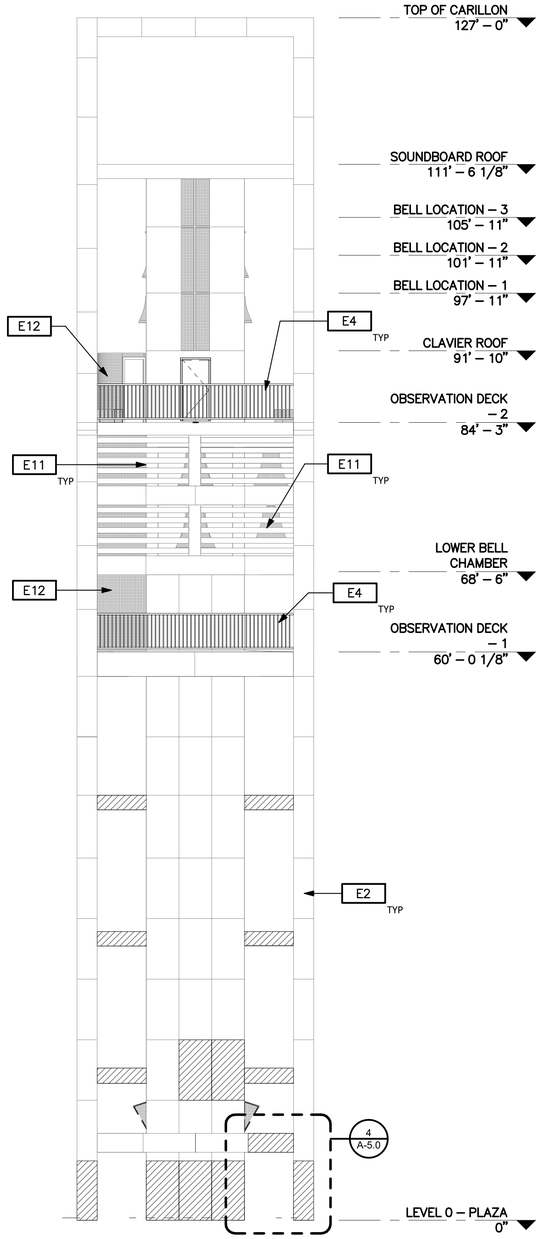


1 A-3.0 SOUTH ELEVATION – REPAIR DETAILS
SCALE Ⓐ



2 A-3.0 NORTH ELEVATION – REPAIR DETAILS
SCALE Ⓐ

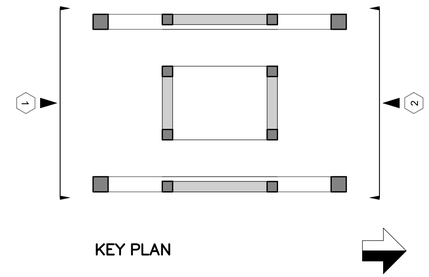
ELEVATION REPAIR NOTES

E2 TREAT ALL STEEL CLADDING PANELS WITH METALIZING AND HIGH–PERFORMANCE COATING AS INDICATED AND REINSTALL.

E4 PROVIDE NEW RAILING AT OBSERVATION DECKS WITH 4" SPACE PICKETS TO MATCH EXISTING. SEE DETAILS A–5.3

E11 TREAT LOUVERS TO MATCH CLADDING PANELS. REINSTALL WITH NEW PAINTED MESH BEHIND. SEE DETAIL 2/A–5.1

E12 PREPARE AND PAINT EXISTING MESH ENCLOSURE



KEY PLAN

SCALE Ⓐ 8 0 8 16

SCALE OF FEET

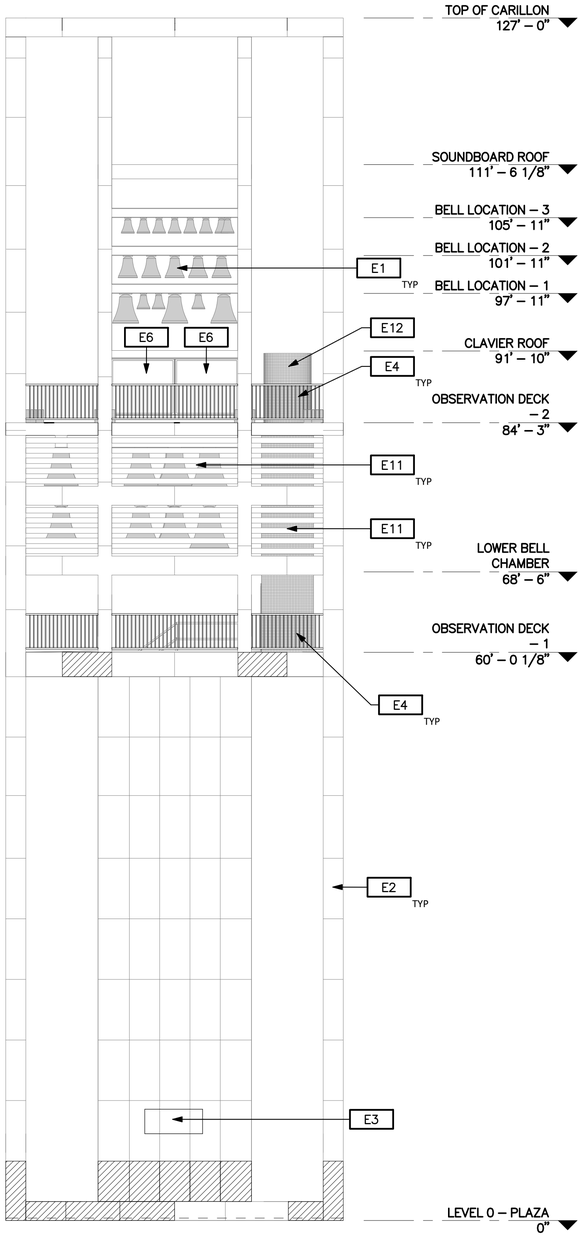
REPAIR LEGEND

REPLACE PANEL

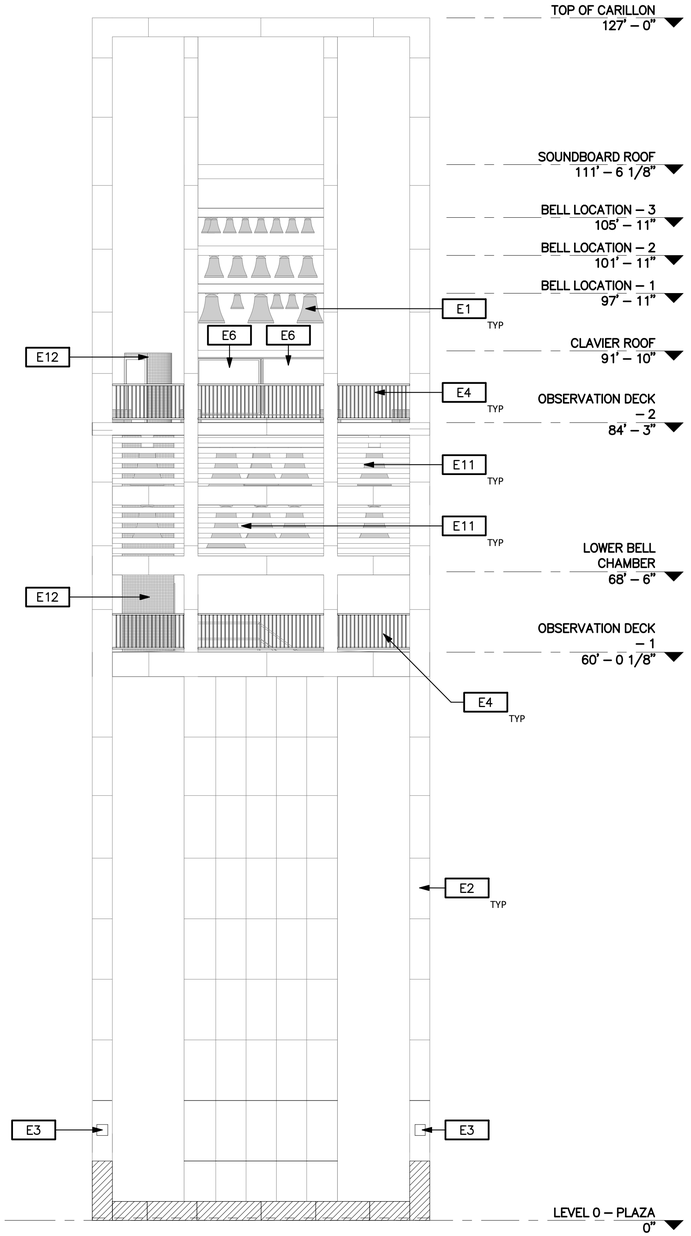
EXISTING DECK MOUNTED LIGHT ENCLOSURE–REINSTALL

(E) WALL / COLUMN / BEAM

DESIGNED: Designer GADD IE TECH. REVIEW: KF, AW DATE: 2/28/2018	SUB SHEET NO. A-3.0	TITLE OF SHEET REPAIR ELEVATIONS – NORTH & SOUTH EXTERIOR Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 140341 PMIS/PKG NO. 214371 SHEET 16 OF 61



1 A–3.1 EAST EXTERIOR ELEVATION – REPAIR DETAILS
SCALE A



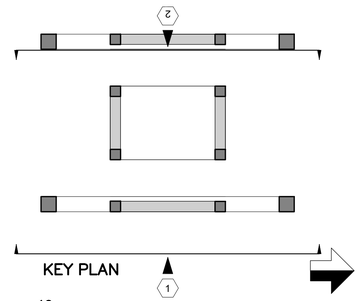
2 A–3.1 WEST ELEVATION – REPAIR DETAILS
SCALE A

ELEVATION REPAIR NOTES

E1	REINSTALL BELLS AND STRUCTURAL SUPPORT STEEL I–BEAMS. COORODINATE INSTALLATION WITH FOUNDRY. (INSTALLATION OF EQUIPMENT BY OTHERS.)
E2	TREAT ALL STEEL CLADDING PANELS WITH METALIZING AND HIGH–PERFORMANCE COATING AS INDICATED AND REINSTALL.
E3	REMOVE, CLEAN, REPOLISH, AND REINSTALL STAINLESS STEEEL LETTERING
E4	PROVIDE NEW RAILING AT OBSERVATION DECKS WITH 4" SPACE PICKETS TO MATCH EXISTING. SEE DETAILS A–5.3
E6	PROVIDE INSULATED GLAZING WITH PAINTED MULLION TO MATCH EXISTING.
E11	TREAT LOUVERS TO MATCH CLADDING PANELS. REINSTALL WITH NEW PAINTED MESH BEHIND. SEE DETAIL 2/A–5.1
E12	PREPARE AND PAINT EXISTING MESH ENCLOSURE

3 A–3.1 EAST ELEVATION LETTERING
SCALE: NTS

4 A–3.1 WEST ELEVATION LETTERING
SCALE: NTS



SCALE A 8 0 8 16
SCALE OF FEET

REPAIR LEGEND

- REPLACE PANEL
- EXISTING DECK MOUNTED LIGHT ENCLOSURE–REINSTALL
- (E) WALL / COLUMN / BEAM

DESIGNED: Designer DRAWN: IE TECH. REVIEW: KF, AW DATE: 2/28/2018	SUB SHEET NO. A-3.1	TITLE OF SHEET REPAIR ELEVATIONS – EAST & WEST EXTERIOR Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 140341 PMIS/PKG NO. 214371 SHEET 17 OF 61

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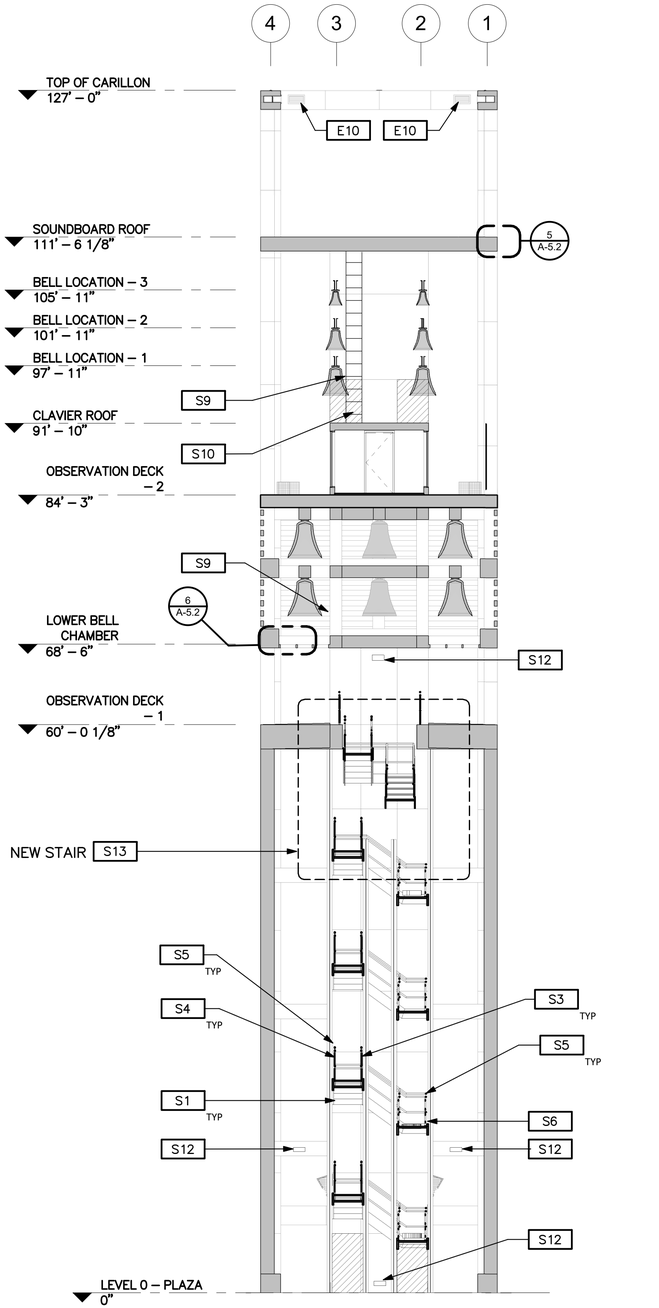
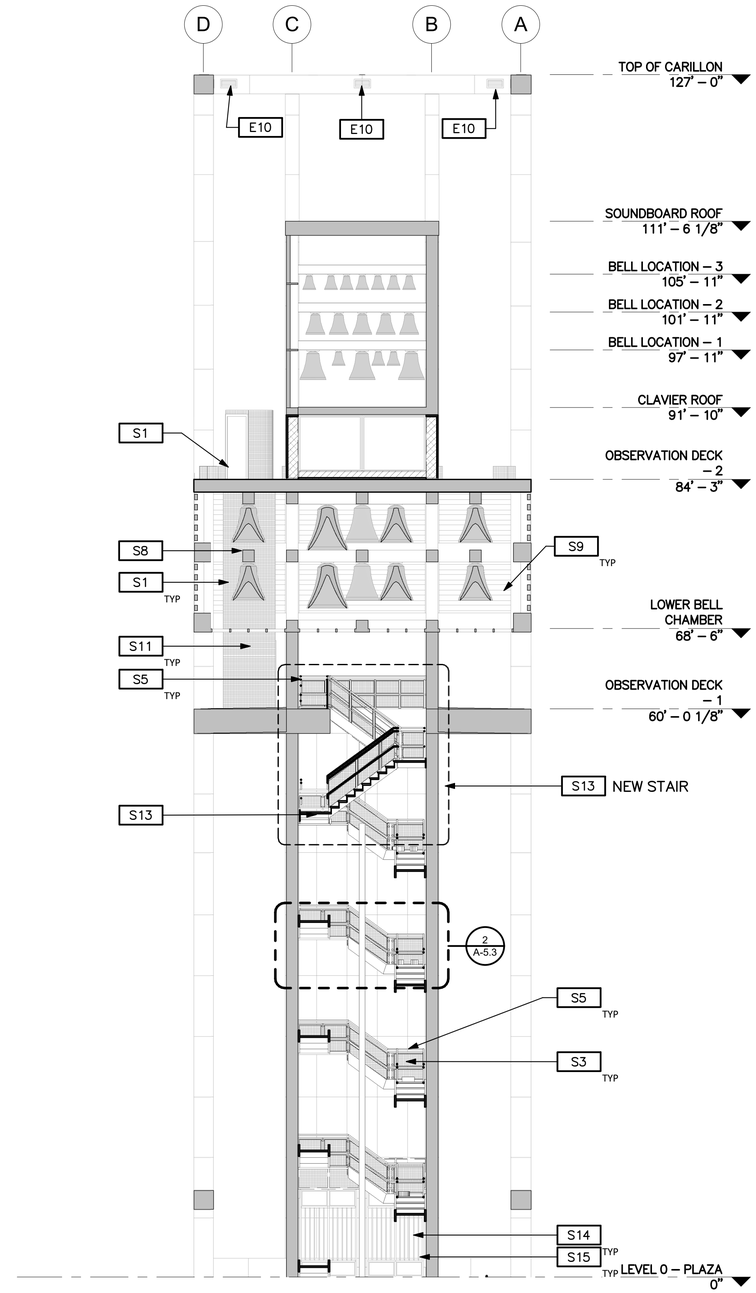


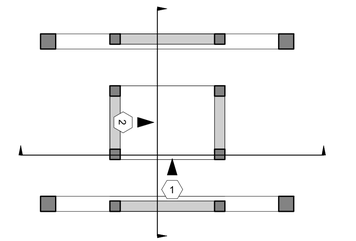
1 A–3.2 SECTION A
SCALE A



2 A–3.2 SECTION B
SCALE A

SECTION REPAIR NOTES

E10	EXISTING VENT TO REMAIN. CLEAN, PAINT AND PROVIDE NEW INSECT SCREENING.
S1	BLAST / WIRE BRUSH CLEAN AND REPAINT ALL SURFACES OF EXISTING MAIN STAIR AND CIRCULAR STAIR.
S3	PROVIDE NEW HANDRAIL AND GUARDRAIL AT STAIR. SEE DETAIL 3/A–5.3
S4	MODIFY OUTER HANDRAIL WITH MESH INSERTS AS INDICATED. SEE DETAIL 2/A–5.3 AND 6/5.3
S5	ADD GALVANIZED STEEL PIPE GUARDRAIL AT 42", PTD. SEE DETAIL 2/A–5.3 AND 6/5.3
S6	INSTALL NEW GALVANIZED STEEL CHECKERED PLATE LANDING AT STAIR, PTD.
S8	ADD STAINLESS STEEL MESH AT OUTSIDE FACE OF CIRCULAR STAIR FOR GUARDRAIL
S9	PROVIDE OSHA COMPLIANT SAFETY TIE–OFFS FOR MAINTENANCE ACCESS; DELEGATED DESIGN
S10	PROVIDE LADDER TO SECONDARY LANDING FOR BELL MAINTENANCE
S11	PREPARE AND PAINT MESH ENCLOSURE
S12	ADD STAINLESS STEEL VENT WITH INSECT SCREENING, PTD. SEE DETAIL 1/A–5.0
S13	PROVIDE NEW STAIR SECTIONS FROM LEVEL 16 TO OBSERVATION DECK AS INDICATED ON PLAN OPTION 4. SEE 4/ S–4.1 FOR CONNECTION DETAIL.
S14	REMOVE EXISTING PAINT AND CORROSION FROM EXISTING GATES AND REPAINT.
S15	ADD MESH PANEL BEHIND BARS.



KEY PLAN

SCALE A 8 0 8 16
SCALE OF FEET

REPAIR LEGEND

- REPLACE PANEL
- EXISTING DECK MOUNTED LIGHT ENCLOSURE–REINSTALL
- (E) WALL / COLUMN / BEAM

DESIGNED: Designer	SUB SHEET NO. A–3.2	TITLE OF SHEET: REPAIR ELEVATION – SECTIONS	DRAWING NO. 850 140341
DRAWN: IE		Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	PMIS/PKG NO. 214371
TECH. REVIEW: KF, AW			SHEET 18 OF 61
DATE: 2/28/2018			

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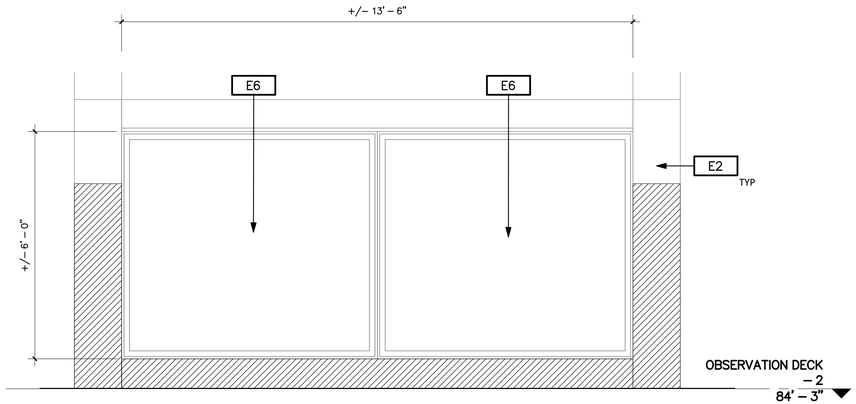
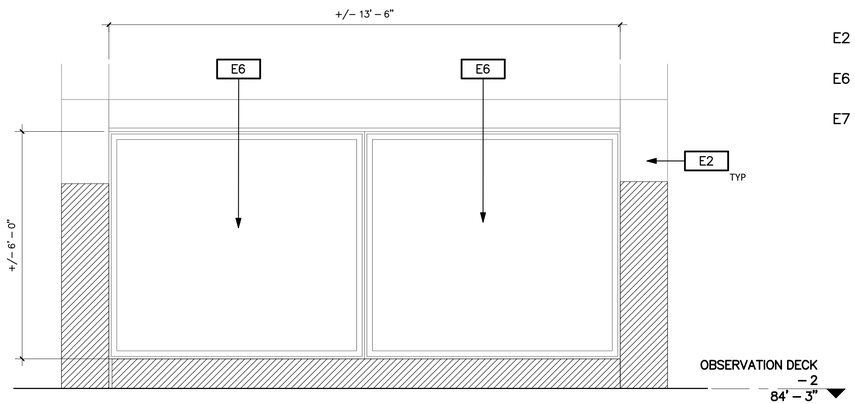


1 A–3.3 EXTERIOR ELEVATION – CLAVIER ROOM – WEST
SCALE A



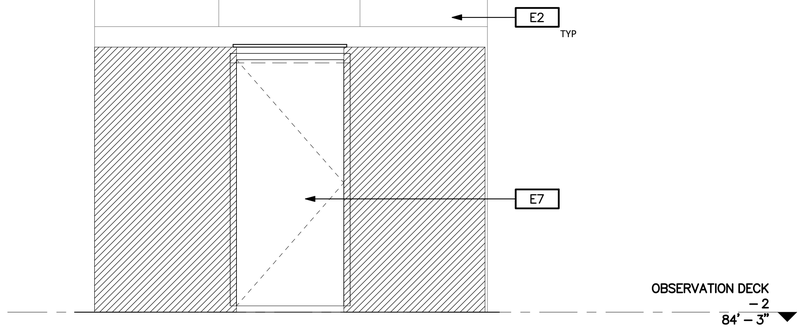
2 A–3.3 EXTERIOR ELEVATION – CLAVIER ROOM – EAST
SCALE A

ELEVATION REPAIR NOTES

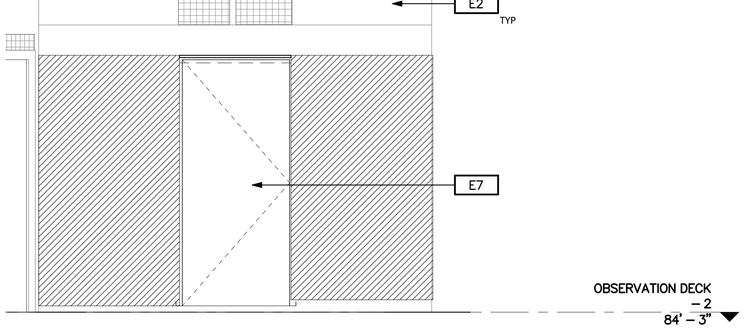
E2 TREAT ALL STEEL CLADDING PANELS WITH METALIZING AND HIGH–PERFORMANCE COATING AS INDICATED AND REINSTALL.

E6 PROVIDE INSULATED GLAZING WITH PAINTED MULLION TO MATCH EXISTING.

E7 PROVIDE NEW HOLLOW CORE STEEL DOOR & FRAME TO MATCH EXISTING WITH NEW LOCK, HINGES, AND THRESHOLD; REFURBISH EXISTING OPERATING LEVERS.



3 A–3.3 EXTERIOR ELEVATION – CLAVIER ROOM – SOUTH
SCALE A



4 A–3.3 EXTERIOR ELEVATION – CLAVIER ROOM – NORTH
SCALE A

SCALE A 2 0 2 4
SCALE OF FEET

REPAIR LEGEND

- REPLACE PANEL
- EXISTING DECK MOUNTED LIGHT ENCLOSURE–REINSTALL
- (E) WALL / COLUMN / BEAM

DESIGNED: Designer CADD: IE TECH. REVIEW: KF, AW DATE: 2/28/2018	SUB SHEET NO. A-3.3	TITLE OF SHEET REPAIR – EXTERIOR ELEV. – CLAVIER ROOM Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 140341 PMIS/PKG NO. 214371 SHEET 19 OF 61

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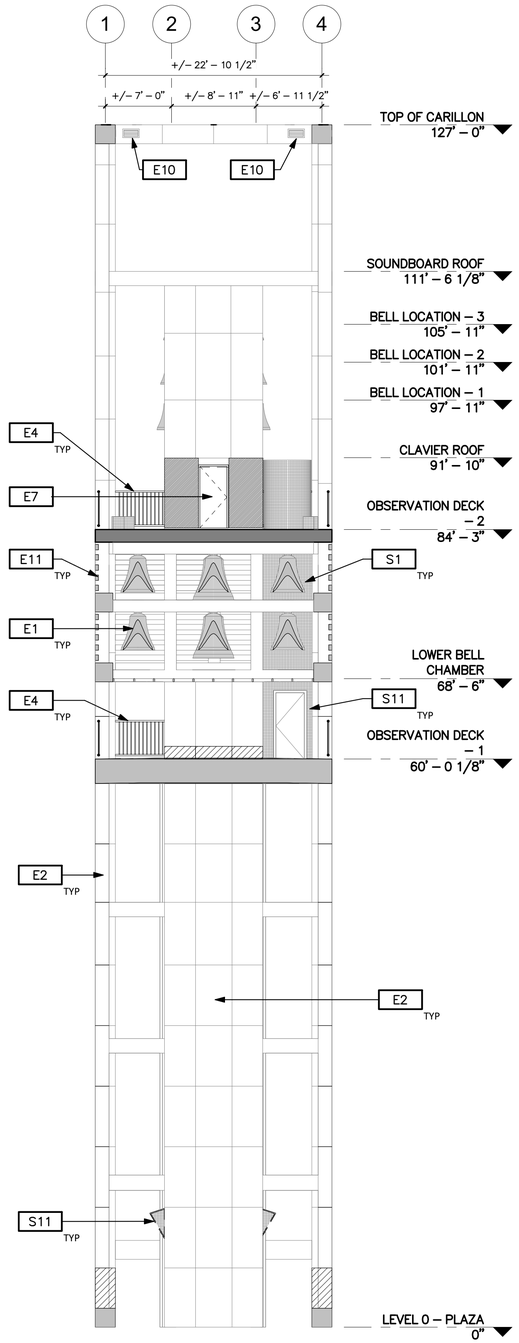
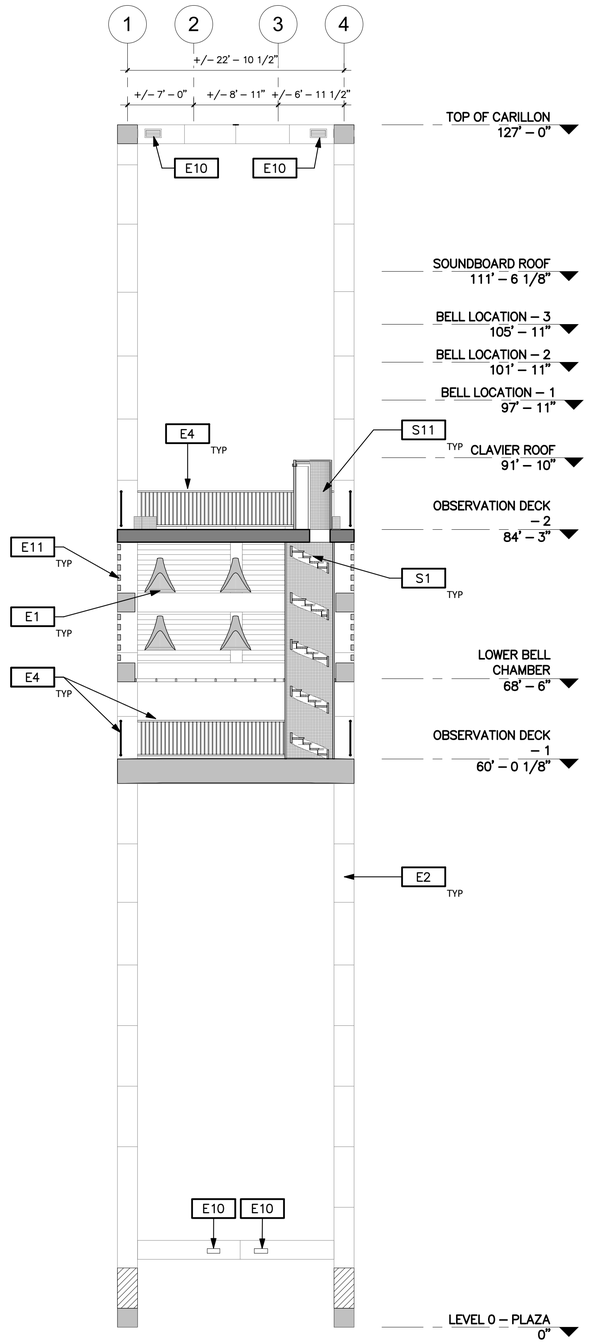


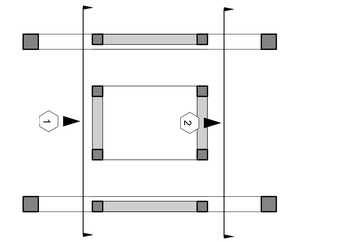
1 A–4.0 SOUTH FACING INTERIOR ELEV. – 1 – REPAIR
SCALE A



2 A–4.0 SOUTH FACING INTERIOR ELEV. – 2 – REPAIR
SCALE A

ELEVATION NOTES

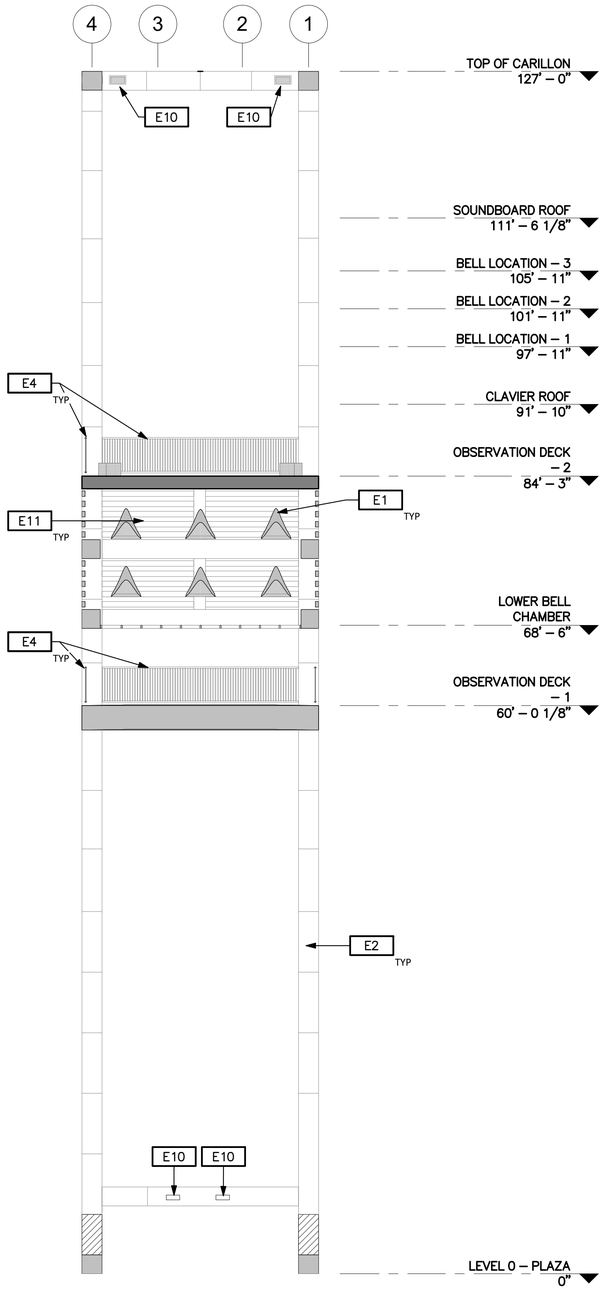
E1	REINSTALL BELLS AND STRUCTURAL SUPPORT STEEL I-BEAMS. COORODINATE INSTALLATION WITH FOUNDRY. (INSTALLATION OF EQUIPMENT BY OTHERS.)
E2	TREAT ALL STEEL CLADDING PANELS WITH METALIZING AND HIGH-PERFORMANCE COATING AS INDICATED AND REINSTALL.
E4	PROVIDE NEW RAILING AT OBSERVATION DECKS WITH 4" SPACE PICKETS TO MATCH EXISTING. SEE DETAILS A-5.3
E7	PROVIDE NEW HOLLOW CORE STEEL DOOR & FRAME TO MATCH EXISTING WITH NEW LOCK, HINGES, AND THRESHOLD; REFURBISH EXISTING OPERATING LEVERS.
E10	EXISTING VENT TO REMAIN. CLEAN, PAINT AND PROVIDE NEW INSECT SCREENING.
E11	TREAT LOUVERS TO MATCH CLADDING PANELS. REINSTALL WITH NEW PAINTED MESH BEHIND. SEE DETAIL 2/A-5.1
S1	BLAST / WIRE BRUSH CLEAN AND REPAINT ALL SURFACES OF EXISTING MAIN STAIR AND CIRCULAR STAIR.
S11	PREPARE AND PAINT MESH ENCLOSURE



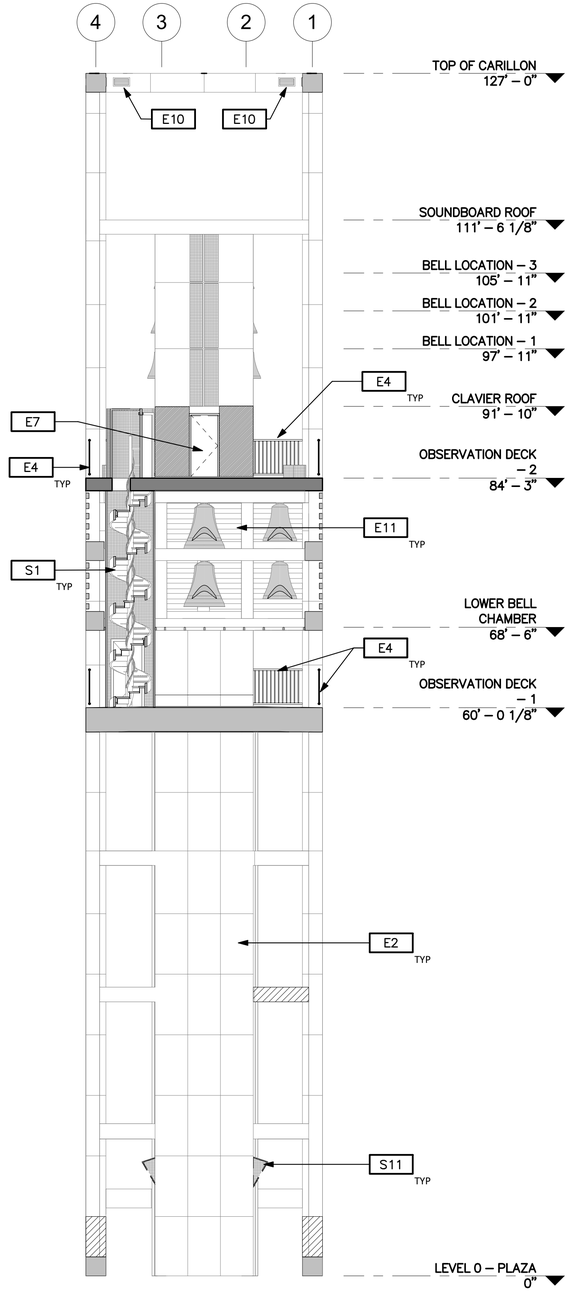
REPAIR LEGEND

- REPLACE PANEL
- EXISTING DECK MOUNTED LIGHT ENCLOSURE–REINSTALL
- (E) WALL / COLUMN / BEAM

DESIGNED: Designer CADD: IE TECH. REVIEW: KF, AW DATE: 2/28/2018	SUB SHEET NO. A-4.0	TITLE OF SHEET REPAIR ELEV. – INTERIOR – SOUTH FACING Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 140341 PMIS/PKG NO. 214371 SHEET 20 OF 61



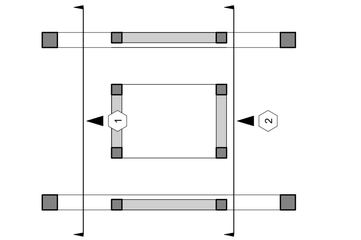
1 A–4.1 NORTH FACING INTERIOR ELEV. – 1 REPAIR
SCALE A



2 A–4.1 NORTH FACING INTERIOR ELEV. – 2 REPAIR
SCALE A

ELEVATION REPAIR NOTES

E1	REINSTALL BELLS AND STRUCTURAL SUPPORT STEEL I–BEAMS. COORODINATE INSTALLATION WITH FOUNDRY. (INSTALLATION OF EQUIPMENT BY OTHERS.)
E2	TREAT ALL STEEL CLADDING PANELS WITH METALIZING AND HIGH–PERFORMANCE COATING AS INDICATED AND REINSTALL.
E4	PROVIDE NEW RAILING AT OBSERVATION DECKS WITH 4" SPACE PICKETS TO MATCH EXISTING. SEE DETAILS A–5.3
E7	PROVIDE NEW HOLLOW CORE STEEL DOOR & FRAME TO MATCH EXISTING WITH NEW LOCK, HINGES, AND THRESHOLD; REFURBISH EXISTING OPERATING LEVERS.
E10	EXISTING VENT TO REMAIN. CLEAN, PAINT AND PROVIDE NEW INSECT SCREENING.
E11	TREAT LOUVERS TO MATCH CLADDING PANELS. REINSTALL WITH NEW PAINTED MESH BEHIND. SEE DETAIL 2/A–5.1
S1	BLAST / WIRE BRUSH CLEAN AND REPAINT ALL SURFACES OF EXISTING MAIN STAIR AND CIRCULAR STAIR.
S11	PREPARE AND PAINT MESH ENCLOSURE



KEY PLAN

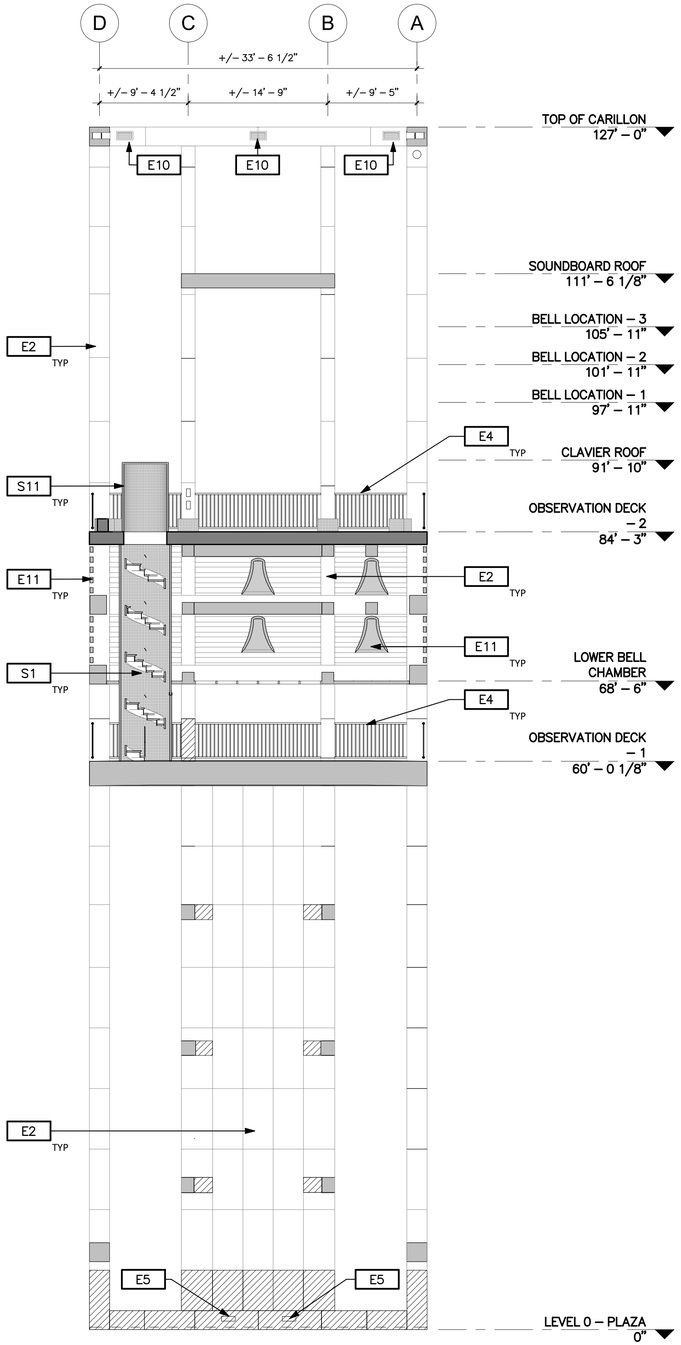
SCALE A 8 0 8 16

SCALE OF FEET

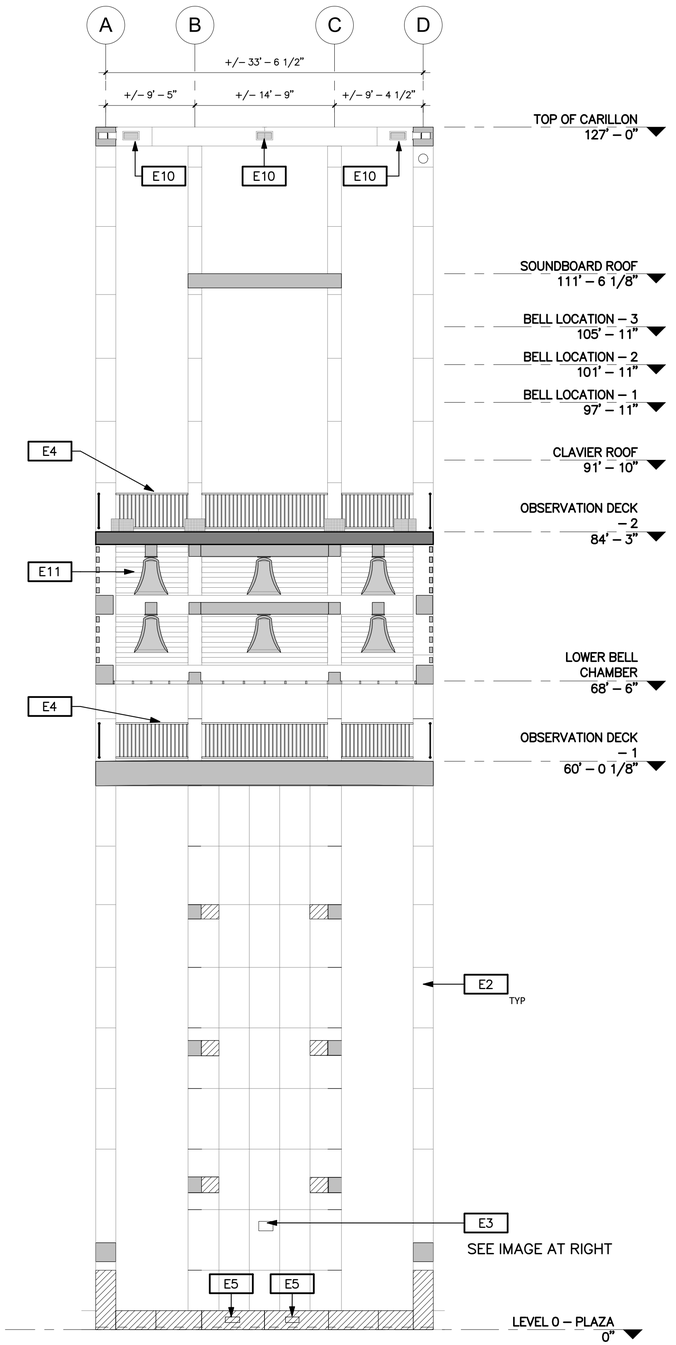
REPAIR LEGEND

- REPLACE PANEL
- EXISTING DECK MOUNTED LIGHT ENCLOSURE–REINSTALL
- (E) WALL / COLUMN / BEAM

DESIGNED: Designer / GADD / IE	SUB SHEET NO. A-4.1	TITLE OF SHEET: REPAIR ELEV. – INTERIOR – NORTH FACING Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 140341
TECH. REVIEW: KF, AW			PMIS/PKG NO. 214371
DATE: 2/28/2018			SHEET 21 OF 61



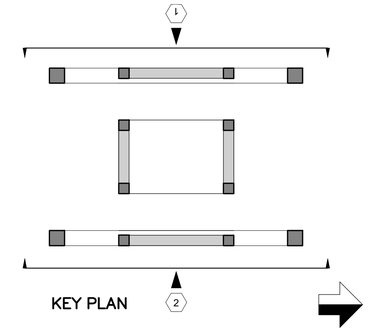
1 A–4.2 WEST FACING INTERIOR ELEVATION – REPAIRS
SCALE Ⓐ



2 A–4.2 EAST FACING INTERIOR ELEVATION – REPAIR
SCALE Ⓐ

ELEVATION REPAIR NOTES

E2	TREAT ALL STEEL CLADDING PANELS WITH METALIZING AND HIGH–PERFORMANCE COATING AS INDICATED AND REINSTALL.
E3	REMOVE, CLEAN, REPOLISH, AND REINSTALL STAINLESS STEEEL LETTERING
E4	PROVIDE NEW RAILING AT OBSERVATION DECKS WITH 4" SPACE PICKETS TO MATCH EXISTING. SEE DETAILS A–5.3
E5	ADD STAINLESS STEEL VENT WITH INSECT SCREENING, PTD.
E10	EXISTING VENT TO REMAIN. CLEAN, PAINT AND PROVIDE NEW INSECT SCREENING.
E11	TREAT LOUVERS TO MATCH CLADDING PANELS. REINSTALL WITH NEW PAINTED MESH BEHIND. SEE DETAIL 2/A–5.1
S1	BLAST / WIRE BRUSH CLEAN AND REPAINT ALL SURFACES OF EXISTING MAIN STAIR AND CIRCULAR STAIR.
S11	PREPARE AND PAINT MESH ENCLOSURE



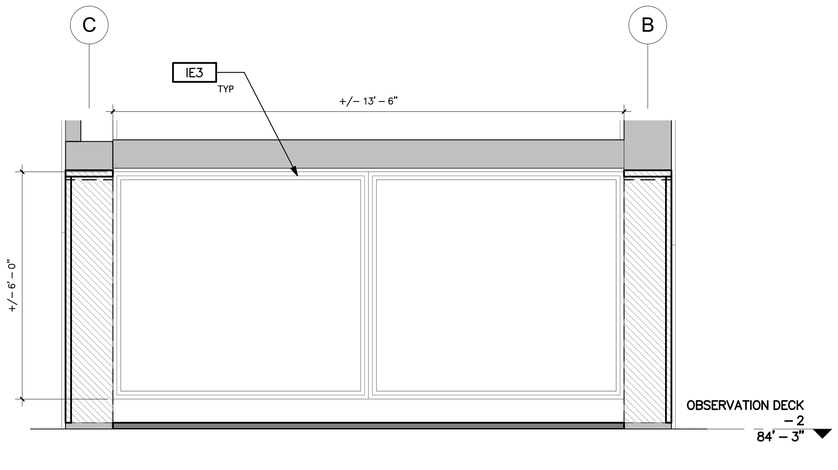
3 A–4.2 INTERIOR ELEVATION LETTERING
SCALE: NTS

REPAIR LEGEND

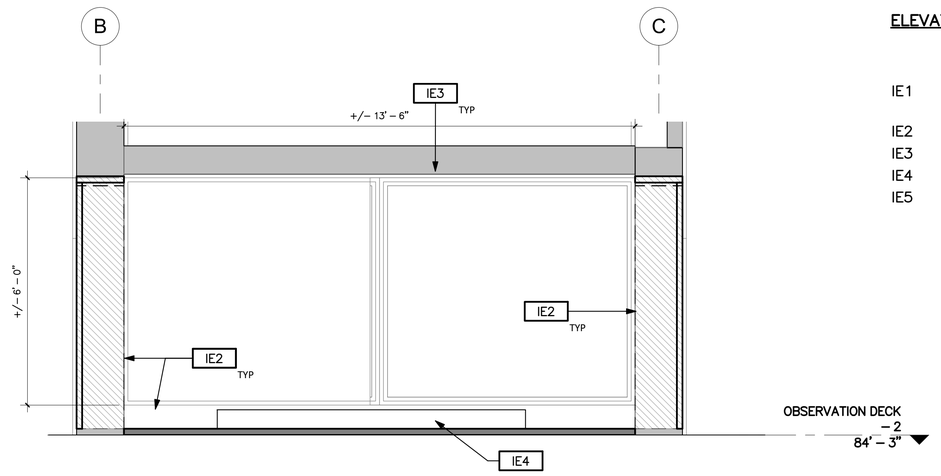
- REPLACE PANEL
- EXISTING DECK MOUNTED LIGHT ENCLOSURE–REINSTALL
- (E) WALL / COLUMN / BEAM

SCALE Ⓐ 8 0 8 16
SCALE OF FEET

DESIGNED: Designer	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO. 850 140341
CADD: IE	A-4.2	REPAIR ELEV. – INTERIOR – WEST & EAST FACING	PMIS/PKG NO. 214371
TECH. REVIEW: KF, AW		Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	SHEET 22 OF 61
DATE: 2/28/2018			



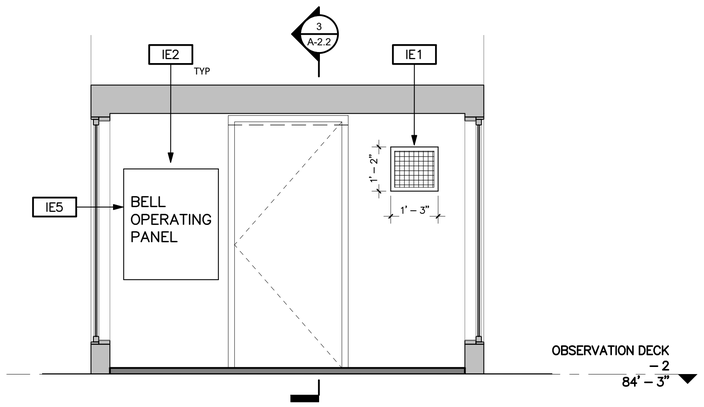
1 A–4.3 INTERIOR ELEVATION – CLAVIER ROOM – WEST
SCALE A



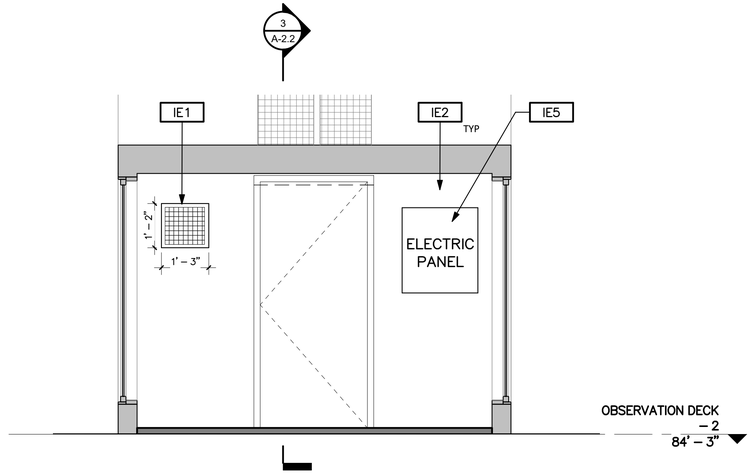
2 A–4.3 INTERIOR ELEVATION – CLAVIER ROOM – EAST
SCALE A

ELEVATION REPAIR NOTES

IE1	CUT OPENING AND PROVIDE NEW SOUND TRANSFER GRILL AT INTERIOR FACE OF WALL.
IE2	PAINT INTERIOR WALLS.
IE3	PROVIDE ROLLER SHADES.
IE4	NEW FIN TUBE RADIATION
IE5	ELECTRICAL EQUIPMENT



3 A–4.3 INTERIOR ELEVATION – CLAVIER ROOM – SOUTH
SCALE A



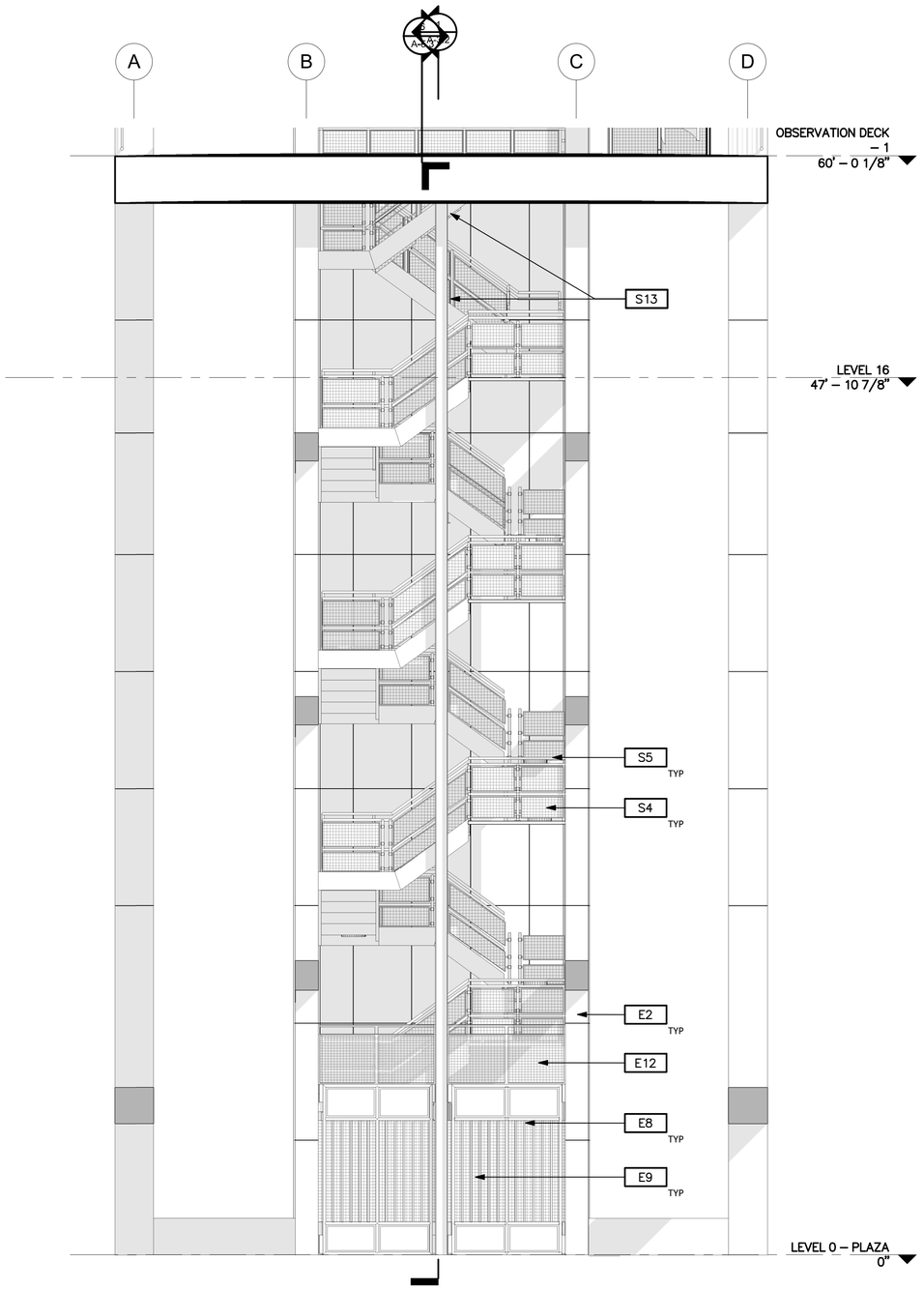
4 A–4.3 INTERIOR ELEVATION – CLAVIER ROOM – NORTH
SCALE A

SCALE A
2 0 2 4
SCALE OF FEET

REPAIR LEGEND

- REPLACE PANEL
- EXISTING DECK MOUNTED LIGHT ENCLOSURE–REINSTALL
- (E) WALL / COLUMN / BEAM

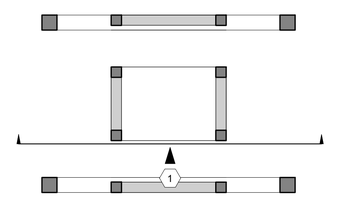
DESIGNED: Designer CADD: IE TECH. REVIEW: KF, AW DATE: 2/28/2018	SUB SHEET NO. A-4.3	TITLE OF SHEET REPAIR INTERIOR ELEVATION – CLAVIER ROOM Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 140341 PMIS/PKG NO. 214371 SHEET 23 OF 61



1 / A–4.4 SECTION/ELEVATION AT GATES AND STAIR RAILINGS
SCALE Ⓐ

ELEVATION REPAIR NOTES

E2	TREAT ALL STEEL CLADDING PANELS WITH METALIZING AND HIGH–PERFORMANCE COATING AS INDICATED AND REINSTALL.
E8	REMOVE EXISTING PAINT AND CORROSION FROM EXISTING GATES AND REPAINT.
E9	ADD MESH PANEL BEHIND BARS.
E12	PREPARE AND PAINT EXISTING MESH ENCLOSURE
S4	MODIFY OUTER HANDRAIL WITH MESH INSERTS AS INDICATED. SEE DETAIL 2/A–5.3 AND 6/5.3
S5	ADD GALVANIZED STEEL PIPE GUARDRAIL AT 42", PTD. SEE DETAIL 2/A–5.3 AND 6/5.3
S13	PROVIDE NEW STAIR SECTIONS FROM LEVEL 16 TO OBSERVATION DECK AS INDICATED ON PLAN OPTION 4. SEE 4/S–4.1 FOR CONNECTION DETAIL.



SCALE Ⓐ
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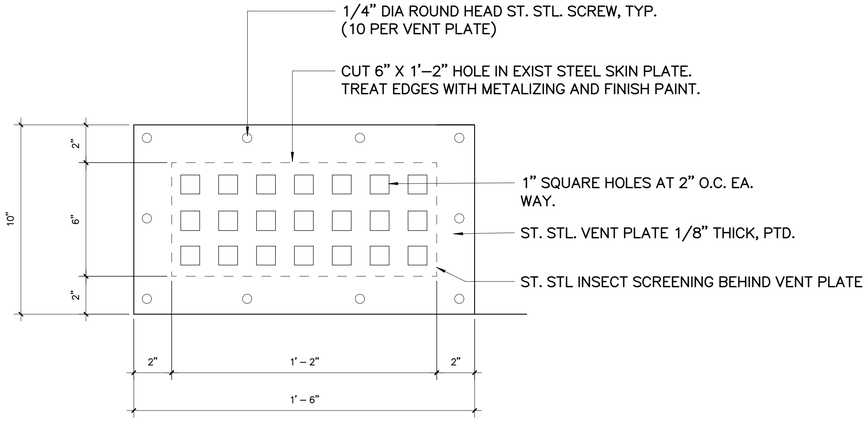
DESIGNED: Designer DRAWN: IE TECH. REVIEW: KF, AW DATE: 2/28/2018	SUB SHEET NO. A-4.4	TITLE OF SHEET SECTION/ ELEVATION AT GATES AND STAIR RAILING Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 140341 PMIS/PKG NO. 214371 SHEET 24 OF 61



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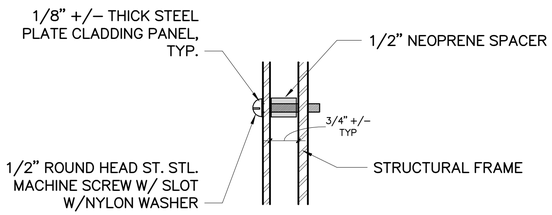

2 A–5.0 TYP ATTACHMENT DETAIL
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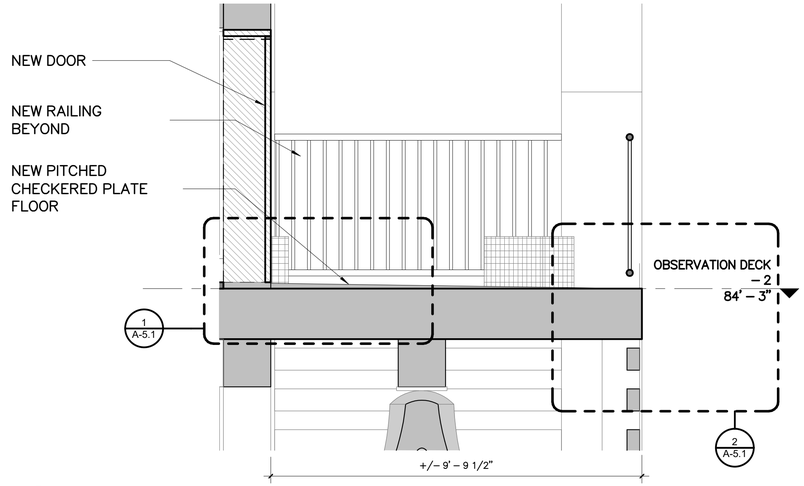

3 A–5.0 FLOOR SECTION AT OBSERVATION DECK 2
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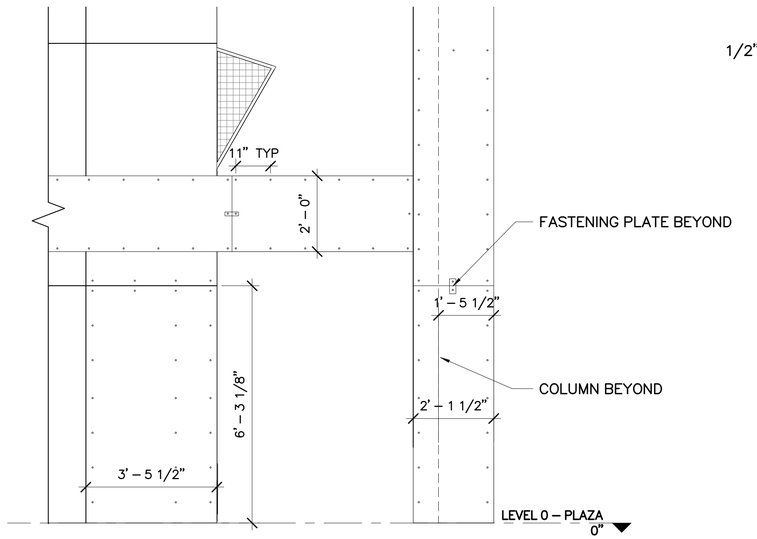
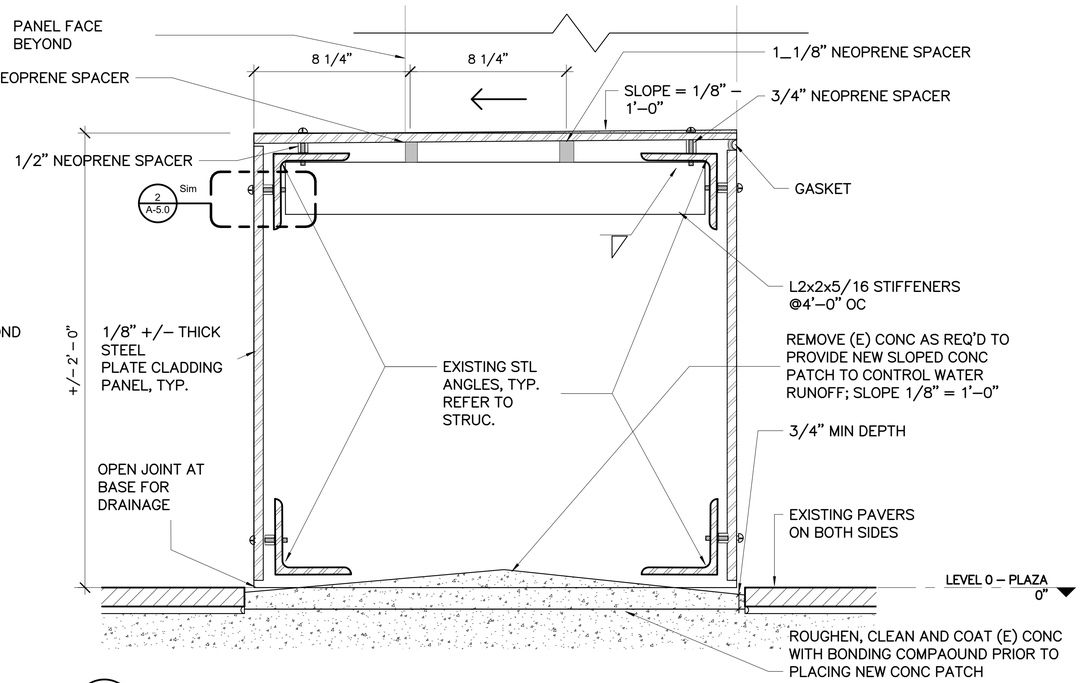


4 A–5.0 NORTH ELEVATION – TYPICAL PANEL DIMENSIONS
SCALE Ⓐ



5 A–5.0 PLAZA BASE BEAM SECTION
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SCALE Ⓑ 6 3 0 6
SCALE OF FEET

SCALE Ⓒ 6 3 0 6
SCALE OF INCHES

DESIGNED: Designer	SUB SHEET NO. A-5.0	TITLE OF SHEET DETAILS	DRAWING NO. 850 140341
DRAWN: IE			PMIS/PKG NO. 214371
TECH. REVIEW: Checker		Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	SHEET 25 OF 61
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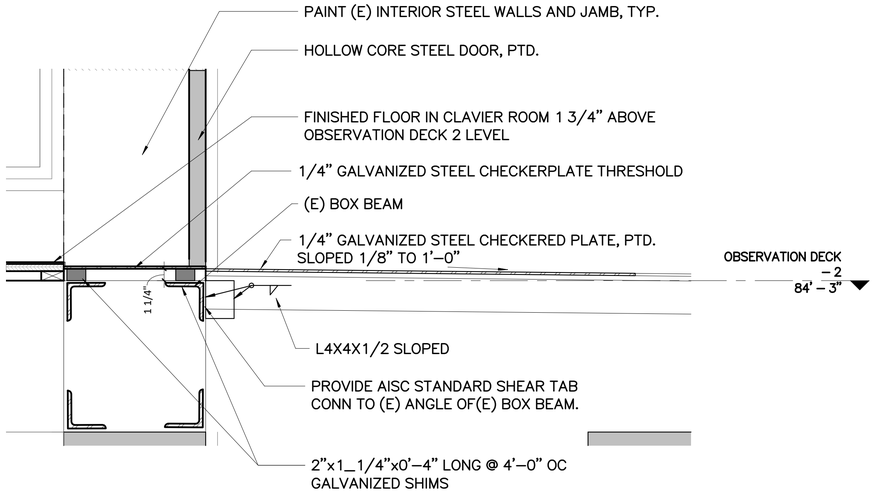

1 A–5.1 DETAIL SECTION AT CLAVIER ROOM DOOR
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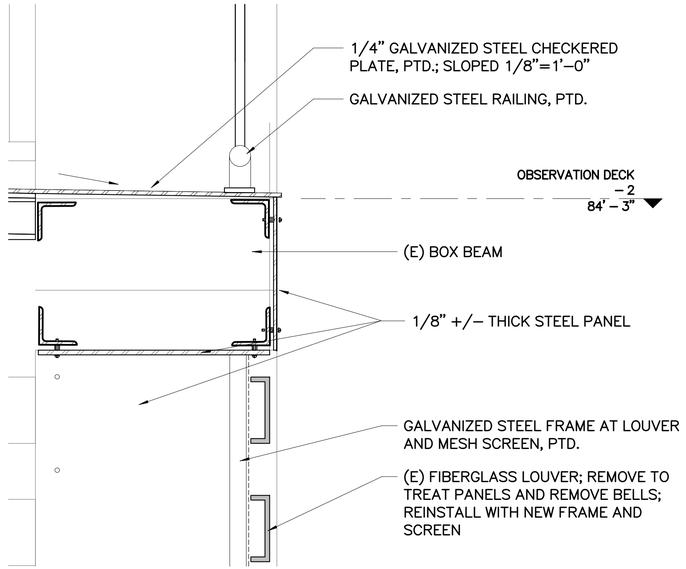

2 A–5.1 EDGE DETAIL AT OBSERVATION DECK 2
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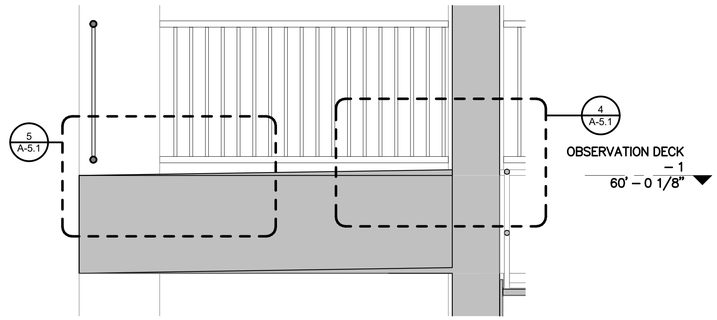

3 A–5.1 FLOOR SECTION AT OBSERVATION DECK 1
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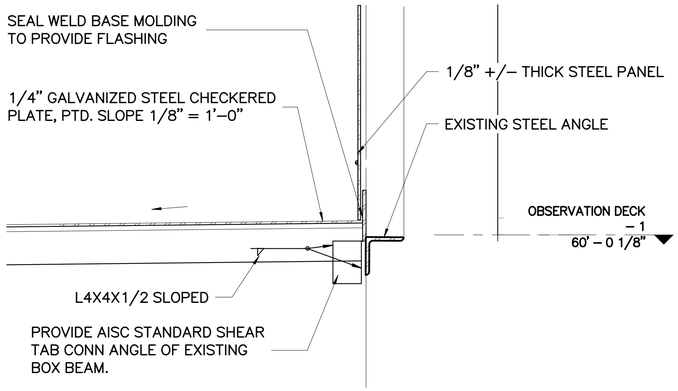

4 A–5.1 DETAIL SECTION AT OBSERVATION DECK WALL
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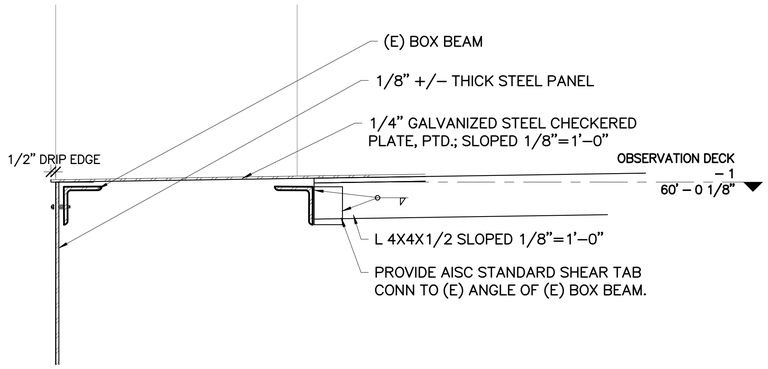

5 A–5.1 EDGE DETAIL AT OBSERVATION DECK 1
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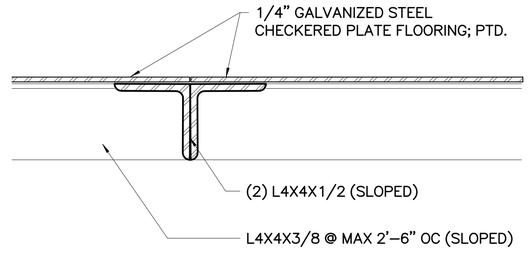

6 A–5.1 DETAIL SECTION AT OBSERVATION DECK RIDGE, TYP.
SCALE Ⓒ

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SCALE OF INCHES

SCALE Ⓑ 2 0 2 4
SCALE OF FEET

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SCALE OF INCHES

DESIGNED: Designer	SUB SHEET NO. A-5.1	TITLE OF SHEET FLOOR DETAILS	DRAWING NO. 850 140341
DRAWN: Author			PMIS/PKG NO. 214371
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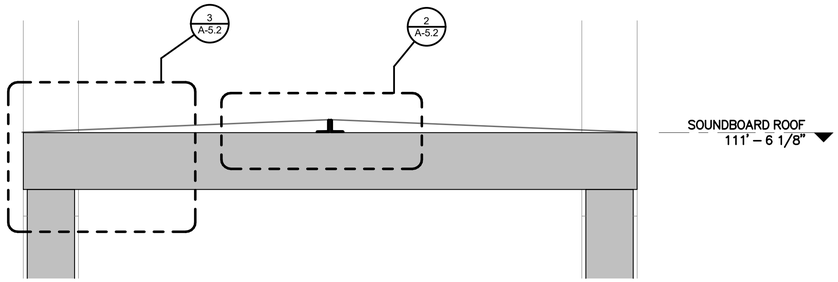

1 A–5.2 SECTION THROUGH SOUNDBOARD ROOF
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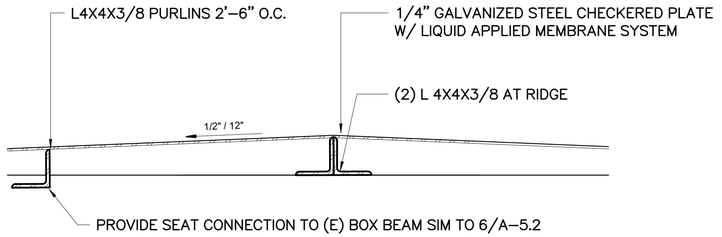
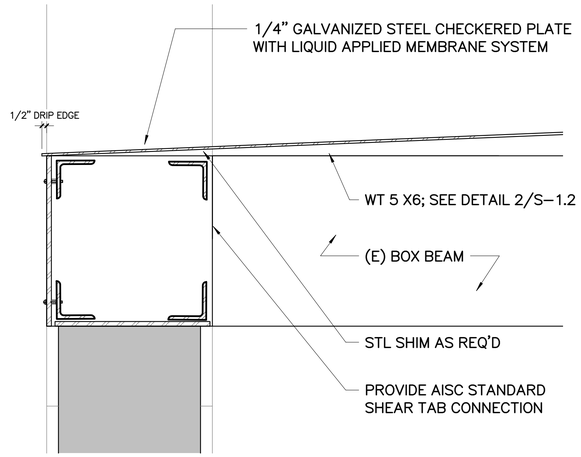
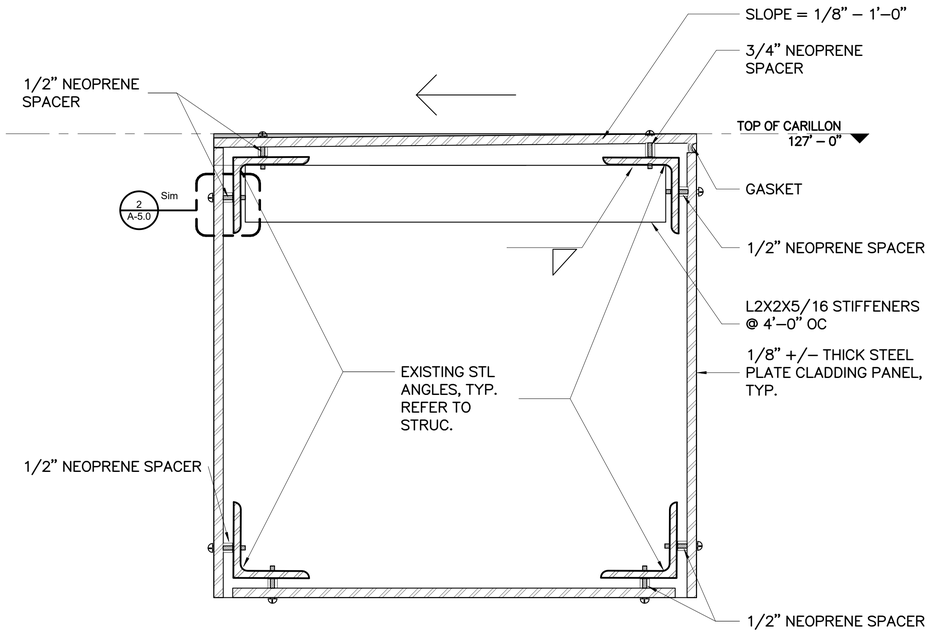


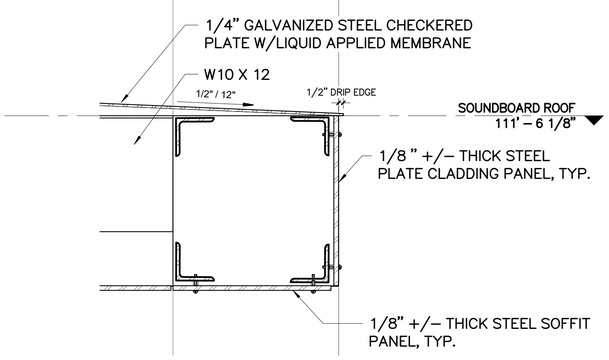
2 A–5.2 DETAIL SECTION AT SOUNDBOARD ROOF RIDGE
SCALE Ⓑ



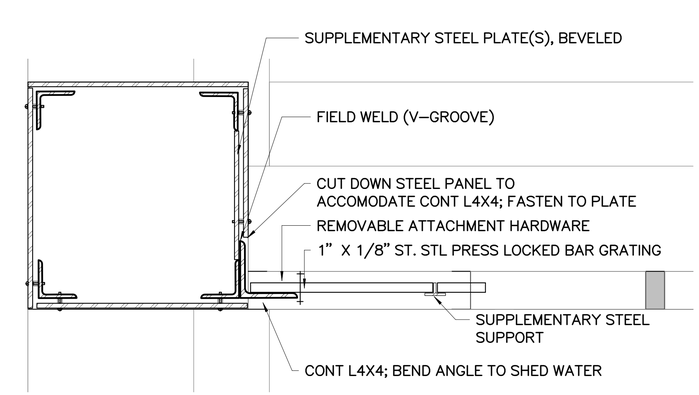
3 A–5.2 DETAIL AT SOUNDBOARD
SCALE Ⓑ



4 A–5.2 ROOF PANEL SECTION
SCALE Ⓒ



5 A–5.2 DETAIL AT SOUNDBOARD EDGE
SCALE Ⓑ



6 A–5.2 SECTION @ LOWER BELL CHAMBER FLOOR
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SCALE Ⓐ 2 0 2 4
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SCALE Ⓑ 12 6 0 12
SCALE OF INCHES

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SCALE OF INCHES

DESIGNED: Designer CADD: Author TECH. REVIEW: Checker DATE: 2/28/2018	SUB SHEET NO. A-5.2	TITLE OF SHEET ROOF DETAILS Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 140341 PMIS/PKG NO. 214371 SHEET 27 OF 61

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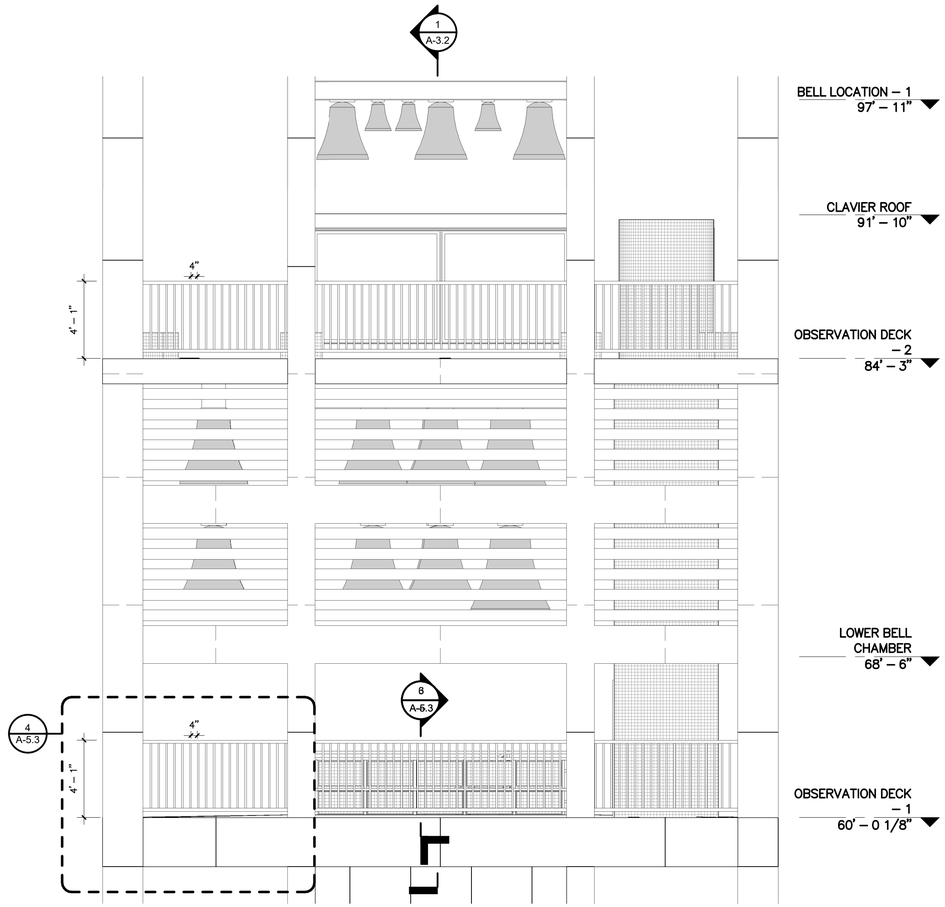
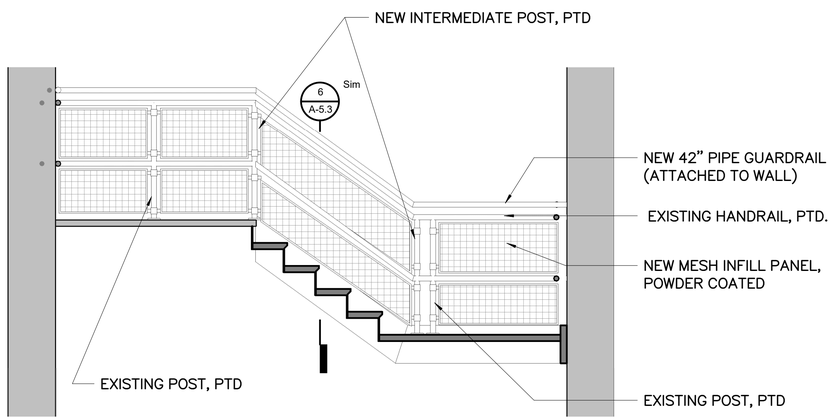
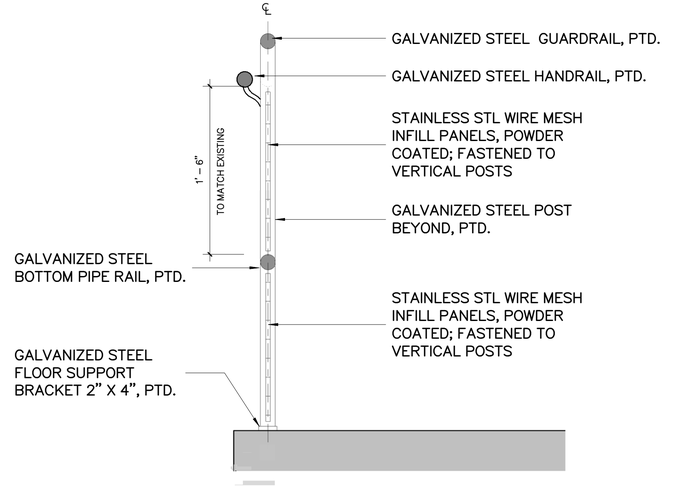


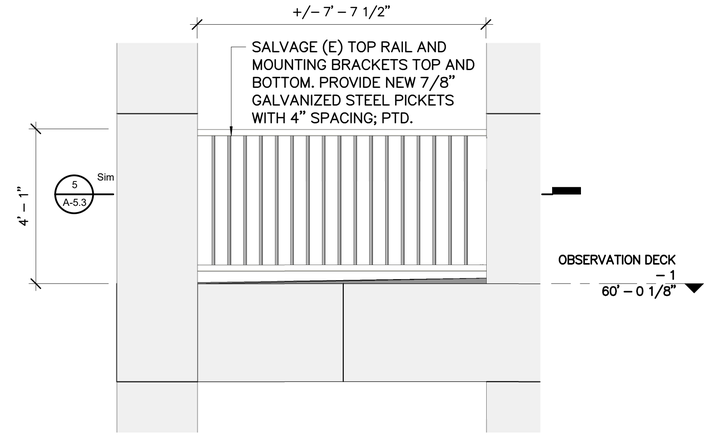
1 A–5.3 EAST ELEVATION – RAILINGS W/ 4" PICKET SPACING – ENLARGED
SCALE Ⓐ



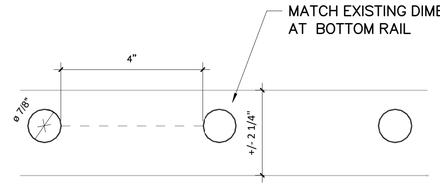
2 A–5.3 MAIN STAIR OUTER RAILING ELEVATION DETAIL
SCALE Ⓑ



3 A–5.3 INNER RAILING DETAIL @ STAIR
SCALE Ⓒ



4 A–5.3 DETAIL ELEVATION OF OBSERVATION DECK RAILING
SCALE Ⓓ



5 A–5.3 PLAN DETAIL AT OBSERVATION DECK RAILING
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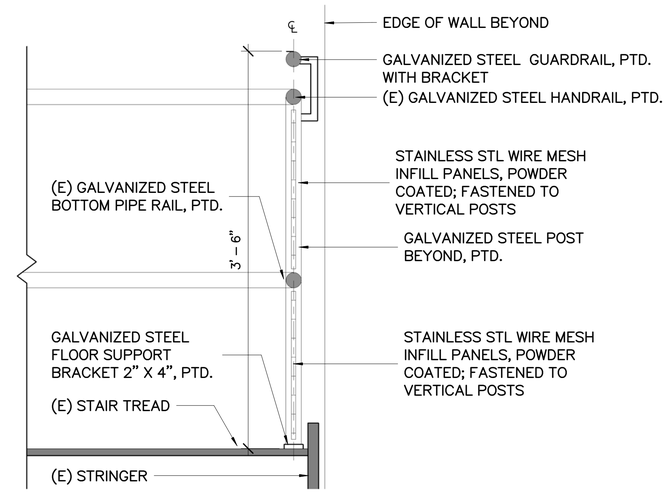

6 A–5.3 MAIN STAIR OUTER RAILING DETAIL
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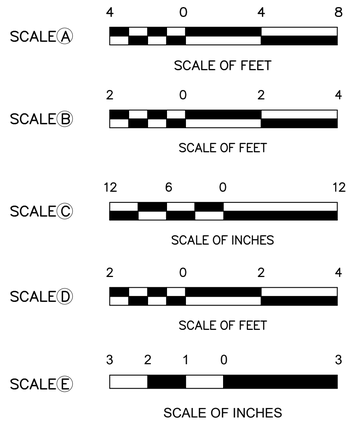

DESIGNED: Designer DRAWN: IE TECH. REVIEW: Checker DATE: 2/28/2018	SUB SHEET NO. A-5.3	TITLE OF SHEET RAILING DETAILS Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 140341 PMIS/PKG NO. 214371 SHEET 28 OF 61

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GENERAL

1. The applicable building code is IEBC–15, International Existing Building Code 2015.
2. Refer to the Design Loads and Factors table on sheet S–0.1 for code required loads for the project.
3. Refer to the Special Inspections tables on sheet S–0.2 & S–0.3 for special inspection requirements for the project. Work the Special Inspections Table in conjunction with the specifications.
4. Contractor is solely responsible for means and methods during the course of the work. Do not damage or endanger the structural integrity of the Work or Existing Structure.
5. Contractor shall be responsible for the proper and safe design of shoring systems for trenches and excavations.
6. Notify the Contracting Officer in case of discrepancies between drawings, these notes, and before proceeding with the work.
7. Use architectural drawings and drawings of other trades in conjunction with the structural drawings to properly perform the work.
8. If conditions disclosed during removal of historic fabric reveal unforeseen conditions, promptly request direction from the Contracting Officer before proceeding.
9. Contractor is responsible for coordinating between trades.
10. Do not scale drawings.
11. Field dimensions
    A. If structural drawings are used for laying out column centers, all dimensions shall first be verified with the architectural drawings. Layout shall be closed before work is begun.
12. Sections and details shown, while drawn for specific locations, are intended to establish the general types of details to be used throughout.
13. The Engineer's review of a submittal shall not relieve the Contractor of their responsibility to follow the intent of the contract drawings.

DELEGATED DESIGN ITEMS

1. Employ or retain a licensed professional engineer in the Commonwealth of Virginia to design and detail the following performance specified structural components:
    A. Concrete mix design
    B. Shoring / Scaffolding
    C. Temporary Excavation Support
    D. Stairs and railings
2. See individual material sections for additional requirements.

EXISTING BUILDING/STRUCTURE NOTES

1. Verify all existing dimensions and elevations before beginning work or preparing shop drawings.
2. Utmost care shall be exercised at all times when working on existing structural members to avoid impairing the carrying capacity of the existing structure.
    A. Should the Contracting Officer determine that the carrying capacity of the existing structure has been impaired by, or as a result of, the operations of the Contractor, or is otherwise not in conformance with the contract documents, appropriate remedial work shall be required.
    B. Any damage resulting from the operations of the Contractor shall be repaired as directed by the Owner's representative at no additional cost to the Owner.
3. Notify the Contracting Officer before cutting or removal of any part of the existing structure not indicated to be modified or demolished.

FOUNDATIONS

1. Existing foundations were designed for a bearing pressure of 2000 psf based on existing base SGH conducted a review of the existing foundation bearing capacity for existing and proposed structural loads. The required bearing pressure increases by approximately 0.6% from existing to proposed structural loading conditions. A subsurface exploration conducted by Langan and described in a report dated 15 September 2017 indicates that the existing mat and associated subgrade soils are suitable to support the additional proposed structural loads. The report indicates mass grading or other substantial earthwork is not anticipated as part of this project.

REINFORCED CONCRETE

1. Concrete construction shall follow requirements of the and ACI 301 "Specifications for Structural Concrete".
2. Detail, fabricate and place reinforcing and bar supports in accordance with the provisions set forth by the American Concrete Institute and the CRSI "Manual of Standard Practice."
3. Provide shop drawings showing full information for reinforcing placement. Develop all member elevations and sections with pertinent elevations given, to clearly indicate the position of the reinforcement and construction joints, without reproducing sections, plans, or elevations from the design drawings.
4. Provide reinforcing steel conforming to ASTM A615, Grade 60. Reinforcement to be welded shall conform to ASTM A706.
5. Length of reinforcing bars, if shown, does not include hooks.
6. Headed Reinforcing Bar Anchors shall conform to ACI 318 and ASTM A970. Install according to manufacturer's written instructions. Submit product information and ICC–ES Evaluation Report.
7. Reinforcing Bar Couplers shall develop 125% of the yield strength of the bar and conform to ACI 318. Submit product information and ICC–ES Evaluation Report.
8. Threaded dowel bar connections shall conform to ACI 318 and shall develop 125% of the yield strength of the bar in tension and compression. The mechanical connection shall be a forged and parallel threaded type coupler manufactured from ASTM A615 grade 60 deformed bar material, free of external welding and machining. All couplers shall be installed per the manufacturer's approved procedures. Submit product information and ICC–ES Evaluation Report.
9. Welded wire fabric shall conform to ASTM A1064.
10. Concrete properties: f'c = 4000 psi.
11. Reinforcement not shown on sections and plans is the same as that shown in similar sections and at similar locations.
13. Refer to special inspections table for testing requirements.

STRUCTURAL STEEL

1. Detail, fabricate, and erect structural steel in accordance with AISC 360 and AISC 303 "Code of Standard Practice".
2. Structural steel design is based on the Load and Resistance Factor Design (LRFD) methodology.
3. A coupon test shall be conducted to determine yield strength of existing structural steel elements of built–up plate columns and beams.
4. Electrodes shall be suited to grade and weldability of base metal. Where welding of existing steel is required, the existing steel shall be checked for suitability of proposed weld.
5. The structural steel detailer shall develop all elevations, plans, and sections without reproducing same from the design drawings. Detailer shall adequately cross reference the structural drawings to the satisfaction of the engineer. All shop drawings shall be submitted for review and review comments incorporated prior to fabrication.
6. Materials shall conform to the following:

ASTM A36	Bars, rods, angles, channels and plates
ASTM A992	W and WT shapes
ASTM A53,	Grade B Pipes
ASTM A500,	Grade B Hollow Structural Sections
ASTM A325 or F1852	TC Bolts High strength bolts
ASTM A490 or F2280	TC Bolts
ASTM F1554	Grade 36 Anchor Rods
AWS A5.1 E70XX	Welding electrodes (See note 4).
ASTM A36	All other structural shapes

7. Connections:
    A. Connections for new steel work shall be standard AISC connections using 3/4" dia. high–strength slip–critical bolts, unless noted otherwise.
    B. Moment Connections: Type PR indicates partially restrained moment connection and type FR indicates fully restrained moment connection as defined by the AISC Specification for Structural Steel Buildings.
    C. All bolted moment and bracing connections shall be slip–critical joints. Faying surfaces in slip–critical joints shall be uncoated. If members are hot–dip galvanized in accordance with ASTM A123 faying surfaces shall be subsequently roughened by hand wire brushing.
    D. All bolted beam and girder to column connections and bolted column splices shall be pretensioned joints.
    E. Provide standard AISC weld or high–strength bolted connections for details provided within the contract documents for connections of new work to existing steel beams and columns. Drill existing steel to receive new bolted connections; do not flame–cut holes.
    F. All bolts, nuts, washers and related hardware for exterior and other galvanized steel construction shall be mechanically galvanized according to ASTM B695, Class 50.
    G. Provide minimum weld sizes in accordance with AISC 360 Specification for Structural Steel Buildings (see note 4).
    H. Use AWS certified welders for structural welding.
    I. Remove galvanizing from steel in the area of field welding. Repair abraded surfaces and coat weld with zinc–rich coating.
8. Steel framing shall be properly guyed, aligned and plumbed within AISC tolerances before proceeding with final connections.
9. See architectural drawings for additional steel not shown on structural drawings.
10. Galvanize all new steel components in accordance with ASTM A–123. Repair scratched or abraded galvanized surfaces with zinc–rich coating. After galvanizing, straighten members to meet AISC standard mill tolerances.
11. Where plates, angles or other miscellaneous members require welding (either field or shop) or slip–critical connections, mask connection surfaces prior to shop priming and touch–up with primer after completing connection.
12. See architectural drawings for identification of members to be classified as "Architecturally Exposed Structural Steel (AESS)".
13. Provide adjustable connections for all members designated as AESS to facilitate adjustment to achieve the specified tolerance.

STEEL STAIRS

1. Stairs shall be designed by a professional engineer (engaged by the Contractor) licensed in the Commonwealth of Virginia.
2. Contractor shall submit signed and sealed shop drawings and calculations from the stair design engineer to the design team for review and incorporate review comments prior to fabrication.
3. See architectural drawings for stair locations, dimensions and details.

SHORING/SCAFFOLDING

1. The contractor shall submit shoring/scaffolding shop drawings and calculations, prepared and sealed by a professional architec licensed in the Commonwealth of Virginia, for the following:
    A. Building/structure support shoring.
    B. Scaffolding.
2. Shoring and scaffolding shall comply with O.S.H.A. regulations.
3. The structural engineer of record (SER) will review shoring/scaffolding submittals only for loads transmitted to the building structure. Submittals shall clearly indicate the location and magnitude of all loads applied to the building or structure. The contractor is responsible for design and performance of the shoring/scaffold system.

SHEET LIST	
SHEET NUMBER	DRAWING TITLE
S–0.0	GENERAL NOTES – STRUCTURE
S–0.1	SYMBOLS AND ABBREVIATIONS
S–0.2	SPECIAL INSPECTIONS
S–0.3	SPECIAL INSPECTIONS
S–1.0	PLANS–1
S–1.1	PLANS–2
S–1.2	PLANS–3
S–1.3	PLANS–4
S–2.0	ELEVATIONS
S–2.1	ELEVATIONS
S–4.1	SECTIONS & DETAILS – STEEL

DESIGNED: LB DADD SGH TECH. REVIEW: MZ DATE: 02/28/2018	SUB SHEET NO. S–0.0	TITLE OF SHEET GENERAL NOTES – STRUCTURE Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 14034 PMIS/PKG NO. 214371 SHEET 29 OF 61

SYMBOLS:

- MOMENT CONNECTION – FULL RESTRAINT
- MOMENT CONNECTION – PARTIAL RESTRAINT
- FLR/ROOF TYPE / COMMENTS — FLOOR/ROOF CONSTRUCTION & SPAN DIRECTION
- S_ — SPAN DIRECTION
- SLOPE — SLOPE ARROW
- [#] 3/4"Ø COMPOSITE BEAM SHEAR STUD QUANTITY (TOTAL PER BEAM DISTRIBUTED EVENLY ALONG LENGTH UNO)
- EMBEDDED PLATE CONNECTION (SEE SCHEDULE)
- BEARING PLATE CONNECTION (SEE SCHEDULE)
- BEND POINT (SEE SCHEDULE)
- BASE OF DISCONTINUOUS COLUMN
- TOP OF DISCONTINUOUS COLUMN
- P_ PIER MARK
- Ø DIAMETER
- 1 GRID COL HEAD (NEW)
- 1 GRID COL HEAD (EXISTING)

STANDARD ABBREVIATIONS:

ABV	Above	(E)	Existing	M	Moment	STL	Steel
ADDL	Additional	EA	Each	MAS	Masonry	STRUC	Structural
ADH	Adhesive	EF	Each Face	MATL	Material	SUPT	Support
ADJ	Adjacent, Adjustment	EJ	Expansion Joint	MAX	Maximum	SW	Short Way
AESS	Architecturally Exposed Structural Steel	EL	Elevation	MECH	Mechanical	SYM	Symmetrical
		ELEC	Electrical	MFR	Manufacturer	T	Top
AFF	Above Finished Floor	ELEV	Elevator	MIN	Minimum	T/	Top of
AGG	Aggregate	EMBED	Embedment/Embedded	MISC	Miscellaneous	T&B	Top and Bottom
ALT	Alternate	ENGR	Engineer	MO	Masonry Opening	TC	Terra Cotta
ANCH	Anchor	EOD	Edge Of Deck	MONO	Monolithic	TEMP	Temporary, Temperature
APRX	Approximate	EOS	Edge Of Slab	MTL	Metal	T&G	Tongue and Groove
AR	Anchor Rod	EQ	Equal	NIC	Not In Contract	THD	Thread(ed)
ARCH	Architect(ural)	EQP	Equipment	NO.	Number	THK	Thick(ness)
BOT, B	Bottom	ES	Each Side	NOM	Nominal	TYP	Typical
B/	Bottom of	EXCAV	Excavate/Excavation	NS	Near Side	UNO	Unless Noted Otherwise
B–B	Back–to–Back	EXP	Expansion	NTS	Not To Scale	U–P	Underpinning
BAL	Balance	EXT	Exterior	NWC	Normal Weight Concrete	V	Shear
BEL	Below	EW	Each Way	OC	On Centers	VAR	Varies
BF	Braced Frame	F/	Face of	OD	Outside Diameter	VB	Vapor Barrier
BLDG	Building	FAB	Fabricate	O.F.	Outside Face	VEF	Vertical Each Face
BLK(G)	Block(ing)	FDN	Foundation	O–O	Out–to–Out	VERT	Vertical
BM	Beam	FIN.	Finish(ed)	OPG	Opening	VIF	Vertical Inside Face, Verify In Field
BP	Base Plate	FL	Floor	OPP	Opposite		
BR	Brace(ing)	FLG	Flange	OSB	Oriented Strand Board	VOF	Vertical Outside Face
BRDG	Bridging	FP	Fireproofing	OSL	Outstanding Leg, Oriented Strand Lumber	VR	Vapor Retarder
BRG	Bearing	FRMG	Framing			w/	With
BRK	Brick	FRP	Fiber–Reinforced Polymer	OVS	Oversized–Hole	w/o	Without
BRKT	Bracket	FS	Far Side	PAF	Powder Actuated Fastener	WD	Wood
BS	Both Sides	FT	Feet	PC	Precast Concrete, Piece	WI	Wrought Iron
BSMT	Basement	FTG	Footing	PCF	Pounds per Cubic Foot	WP	Work Point, Waterproofing
BT	Bent	FUT	Future	PED	Pedestal	WT	Weight
BTWN	Between	GA	Gage	PERP	Perpendicular	WWF	Welded Wire Fabric
BYD	Beyond	GALV	Galvanize(d)	PREFAB	Prefabricate(d)	XS	Extra Strong
CAIS	Caisson	GC	General Contractor	PL	Plate	XXS	Double Extra Strong
CANT.	Cantilever	GR	Grade	PLF	Pounds per Lineal Foot	±	Exist Dim or El (VIF)
CAP.	Capacity	GYP	Gypsum	PLYWD	Plywood		
C–C	Center–to–Center	HDR	Header	PMF	Premolded Filler		
CE	Concrete Encased	HEF	Horizontal Each Face	PROJ	Project(ion)		
CHAM	Chamfer	HGR	Hanger	PSF	Pounds per Square Foot		
CI	Cast Iron	HI.	High	PSI	Pounds per Square Inch		
CIP	Cast In Place	HIF	Horizontal Inside Face	PSL	Parallel Strand Lumber		
CJ	Control/Contraction Joint	HK	Hook(ed)	PT	Preservative–Treated, Post–Tensioned		
CL	Centerline	HOF	Horizontal Outside Face				
CLG	Ceiling	HORIZ	Horizontal	PVC	Polyvinyl Chloride		
CLR	Clear	HP	High Point	QTY	Quantity		
CM	Construction Manager	HSB	High Strength Bolt	R	Radius		
CMU	Concrete Masonry Unit	HT	Height	RCMU	Reinforced Concrete Masonry Unit		
COL	Column	H&V	Horizontal & Vertical				
COMB.	Combined	HVAC	Heating, Ventilating, & Air Conditioning	RD	Roof Drain		
COMP	Composite			RDK	Roof Deck		
CONC	Concrete	I.D.	Inside Diameter	REF	Reference		
COND	Condition	I.F.	Inside Face	REINF	Reinforce(d)/ Reinforcement		
CONN	Connection	INFO	Information				
CONST	Construction	INSTL	Install/Installation	REQ(D)	Require(d)		
CONT	Continuous	INSUL	Insulation	RET	Retaining		
CONTR	Contractor	INT	Interior	REV	Revise(d)/Revision		
COORD	Coordinate	JST(S)	Joist(s)	RO	Rough Opening		
COV	Cover	JT	Joint	RQMT(S)	Requirement(s)		
CP	Cap Plate	k	Kip (thousand pounds)	RXN	Reaction		
CSK	Countersunk	KB	Knee Brace	SC	Slip–Critical (connection)		
CTR	Center(ed)	LB, #	Pound	SCHED	Schedule		
CY	Cubic Yard	LDGR	Ledger (board)	SECT	Section		
DBL	Double	LEN	Length	SF	Square Foot		
DEMO	Demolition/Demolish	LG	Long	SHRG	Shoring		
DEPR	Depress(ed)/Depression	LL	Live Load	SHTHG	Sheathing		
DET(S)	Detail(s)	LLBB	Long Legs Back to Back	SIM	Similar		
DEV	Develop/Development	LLH	Long–Leg Horizontal	SL	Slope(d)		
DIA, Ø	Diameter	LLV	Long–Leg Vertical	SLBB	Short Legs Back to Back		
DIAG	Diagonal	LOCN	Location	SLV	Sleeve		
DIM(S).	Dimension(s)	LONGIT	Longitudinal	SOD	Slab On Deck		
DIR	Direction	LP	Low Point	SOG	Slab On Grade		
DK	Deck	LSL	Long–Slotted Hole, Laminated Strand Lumber	SPA	Space(s)/Spacing		
DL	Dead Load			SPEC(S)	Specification(s)		
DN	Down	LVL	Laminated Veneer Lumber	SQ	Square		
do.	Ditto	LW	Long Way	SS	Stainless Steel		
DP	Deep	LWC	Light Weight Concrete	SSL	Short–Slotted Hole		
DWG(S)	Drawing(s)			STD	Standard		
DWL	Dowel			STIFF	Stiffener		
				STIR.	Stirrup		

DESIGN LOADS AND FACTORS

DESIGN CODE: INTERNATIONAL EXISTING BUILDING CODE 2015 ED

LIVE LOAD DATA		SNOW LOAD DATA		WIND LOAD DATA		EARTHQUAKE DESIGN DATA		
FLOOR OR ROOF AREA	LL (psf)	ROOF AREA	LOAD (psf)	FACTOR	VALUE	FACTOR		VALUE
OBSERVATION DECKS 1 & 2	100	GROUND SNOW LOAD (P_g)	25	ULTIMATE WIND SPEED (V_{ult}) (MPH)	115	RISK CATEGORY		II
OBSERVATION DECK 1.1	40	FLAT ROOF SNOW LOAD (P_f)	30	NOMINAL WIND SPEED (V_{asd}) (MPH)	90	SEISMIC IMPORTANCE FACTOR (I_e)		1.0
BELL TOWER ROOF	20	DRIFT		RISK CATEGORY	II	MAPPED SPECTRAL RESPONSE ACCELERATION 0.2 SEC (S_s)		0.119
				WIND EXPOSURE	C	MAPPED SPECTRAL RESPONSE ACCELERATION 1.0 SEC (S_1)		0.051
		FACTOR	VALUE			SITE CLASS		C
		SNOW EXPOSURE (C_e)	0.9			DESIGN SPECTRAL RESPONSE ACCELERATION 0.2 SEC (S_{ds})		0.095
		SNOW LOAD IMPORTANCE (I_s)	1.0			DESIGN SPECTRAL RESPONSE ACCELERATION 1.0 SEC (S_{d1})		0.058
		THERMAL FACTOR (C_t)	1.2	COMPONENTS AND CLADDING WIND PRESSURE (PSF)	*VARIES	SEISMIC DESIGN CATEGORY		A
				* CALCULATED PRESSURES TO BE DETERMINED BY COMPONENT AND CLADDING PROVIDER.				
						ANALYSIS PROCEDURE – EQUIVALENT LATERAL FORCE		
							NORTH–SOUTH DIRECTION	EAST–WEST DIRECTION
						BASIC SEISMIC–FORCE–RESISTING SYSTEM	STEEL MOMENT FRAME	
							Cs=3.5 R=3.0	
						DESIGN FACTORED BASE SHEAR (kips)	20.6	20.6

DESIGNED: LB	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.	
DRAWN: SGH	S-0.1	SYMBOLS AND ABBREVIATIONS	850 14034	
TECH. REVIEW: MZ		Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	PMIS/PKG NO. 214371	
DATE: 02/28/2018			SHEET 30 OF 61	

SPECIAL INSPECTIONS PROGRAM – CONCRETE & PRECAST CONCRETE (IBC TABLE 1705.3)						
VERIFICATION AND INSPECTION		CONTINUOUS	PERIODIC	2015 IBC REFERENCE SECTION	REFERENCE STANDARD	COMMENTS
GENERAL	INSPECTION OF FABRICATORS		X	1704.2.5		SEE NOTE 2.
INSPECTION OF REINFORCING STEEL, & PLACEMENT			X	1908.4	ACI 318: Ch. 20, 25.2, 25.3, 26.6.1–3	
WELDING OF REINFORCING STEEL	VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706		X		AWS D1.4 ACI 318: 26.6.4	
	REINFORCING STEEL RESISTING FLEXURAL & AXIAL FORCES IN INTERMEDIATE & SPECIAL MOMENT RESISTING FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE & SHEAR REINFORCEMENT	X			AWS D1.4 ACI 318: 26.6.4	
	SHEAR REINFORCEMENT	X			AWS D1.4 ACI 318: 26.6.4	
	OTHER REINFORCING STEEL		X		AWS D1.4 ACI 318: 26.6.4	
INSPECTION OF ANCHORS CAST IN CONCRETE			X		ACI 318: 17.8.2	
VERIFYING USE OF REQUIRED DESIGN MIX			X	1904.1,1904.2, 1908.2, 1908.3	ACI 318: Ch. 19, 26.4.4	
AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE		X		1908.10	ASTM C 172 ASTM C 31 ACI 318: 26.5.2, 26.12	
INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES		X		1908.6, 1908.7, 1908.8	ACI 318: 26.5.2	
INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE & TECHNIQUES			X	1908.9	ACI 318: 26.5.3–5.5	
VERIFICATION OF IN–SITU CONCRETE STRENGTH, PRIOR TO REMOVAL OF SHORES & FORMS FROM BEAMS & STRUCTURAL SLABS			X		ACI 318: 26.10.2, 26.11.2	
INSPECT FORMWORK FOR SHAPE, LOCATION & DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED			X		ACI 318: 26.11.1	

SPECIAL INSPECTIONS PROGRAM – POST INSTALLED						
VERIFICATION AND INSPECTION		CONTINUOU	PERIODIC	2015 IBC REFERENCE SECTION	REFERENCE STANDARD	COMMENT
INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE	ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	X		TABLE 1705.3	ACI 318: 17.8.2	[SEE GENERAL NOTES FOR REQUIRED PULL TEST]
	OTHER MECHANICAL ANCHORTS AND ADHESIVE ANCHORS		X	TABLE 1705.3	ACI 318: 17.8.2	[SEE GENERAL NOTES FOR REQUIRED PULL TEST]

STRUCTURAL TESTING & INSPECTION PROGRAM NOTES:

1. THE INTENTION OF THIS TABLE IS TO IDENTIFY THE CONSTRUCTION REQUIRING SPECIAL INSPECTION AS REQUIRED BY THE INTERNATIONAL BUILDING CODE (IBC). THE CONTRACTOR SHALL ENGAGE INDEPENDENT SPECIAL INSPECTION AGENCY. CONTRACTOR TO NOTIFY SPECIAL INSPECTOR OF PROGRESS OF CONSTRUCTION AND PROVIDE ACCESS TO THE SITE TO COMPLETE INSPECTIONS. EACH SPECIAL INSPECTOR IS RESPONSIBLE FOR JOB SPECIFIC ITEMS AS DEFINED IN CHAPTER 17 OF THE IBC (AND IN ACCORDANCE WITH THE SPECIFICATION)
2. INSPECTIONS OF FABRICATORS IS NOT REQUIRED IF THE FABRICATOR IS APPROVED IN ACCORDANCE TO IBC SECTION 1704.2.5 AND CERTIFIES COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.
3. THE ITEMS CHECKED WITH AN "X" SHALL BE INSPECTED IN ACCORDANCE WITH IBC CHAPTER 17 BY A CERTIFIED SPECIAL INSPECTOR FROM AN ESTABLISHED TESTING AGENCY. FOR MATERIAL SAMPLING AND TESTING REQUIREMENTS, REFER TO THE MATERIAL SAMPLING AND TESTING SECTION OF THE PROJECT SPECIFICATIONS AND THE GENERAL NOTES. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE ENGINEER, CONTRACTOR AND BUILDING OFFICAL. ANY CONSTRUCTION WHICH FAILS TO MEET THE PROJECT SPECIFICATIONS AND IBC REQUIREMENTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION AND THE ENGINEER IF UNCORRECTED. SPECIAL INSPECTION TESTING REQUIREMENTS APPLY EQUALLY TO ALL BIDDER DESIGNED COMPONENTS.
4. FREQUENCY OF INSPECTIONS.
   A. CONTINUOUS SPECIAL INSPECTION MEANS THAT THE SPECIAL INSPECTOR SHALL BE ON SITE AT ALL TIMES OBSERVING THE WORK REQUIRING SPECIAL INSPECTION. FOR STRUCTURAL STEEL, INSPECTION TASK MUST BE COMPLETED FOR EACH MEMBER OR CONNECTION.
   B. PERIODIC SPECIAL INSPECTION MEANS THAT THE SPECIAL INSPECTOR IN ON THE SITE AT THE TIME INTERVALS NECESSARY TO CONFIRM THAT ALL WORK REQUIREING SPECIAL INSPECTIONS IN IN COMPLIANCE. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
5. ALL WELDS SHALL BE VISUALLY INSPECTED BY AN AWS CERTIFIED WELDING INSPECTOR. ALL PROVISIONS OF AWS D1.1/D1.1M "STRUCTURAL WELDING CODE– STEEL" SHALL APPLY TO STEEL CONSTRUCTION. NON–DESTRUCTIVE TESTING OF WELD JOINTS SHALL BE IN ACCORDANCE WITH AISC 360 SECTION N5.

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SPECIAL INSPECTIONS PROGRAM – STRUCTURAL STEEL (AISC 360 CHAPTER N)

VERIFICATION AND INSPECTION		CONTINUOUS	PERIODIC	2015 IBC REFERENCE SECTION	AISC 360 REFERENCE	COMMENTS
GENERAL	INSPECTION OF FABRICATORS		X	1704.2.5		SEE NOTE 2.
	DOCUMENT ACCEPTANCE OR REJECTION OF INSPECTED ITEMS	X			TABLES N5.4–3, N5.6–3, N6.1	
ANCHOR RODS, EMBEDMENTS, AND POST–INSTALLED ANCHORS	PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL				SECTION N5.7	
	VERIFY DIAMETER, GRADE, TYPE AND LENGTH OF THE ANCHOR ROD OR EMBEDDED ITEM				SECTION N5.7	
	VERIFY EXTENT OR DEPTH OF EMBEDMENT INTO CONCRETE PRIOR TO CONCRETE PLACEMENT				SECTION N5.7	
INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE w/CONSTRUCTION DOCUMENTS	DETAILS SUCH AS BRACING & STIFFENING		X		SECTION N6	
	MEMBER LOCATIONS		X		SECTION N6	
	APPLICATION OF JOINT DETAILS AT EACH CONNECTION		X		SECTION N6	
PRIOR TO WELDING	WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	X			TABLE N5.4–1	
	MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	X			TABLE N5.4–1	
	MATERIAL IDENTIFICATION (TYPE/GRADE)		X		TABLE N5.4–1	
	FIT–UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) – JOINT PREPARATION – DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) – CLEANLINESS (CONDITION OF STEEL SURFACES) – TACKING (TACK WELD QUALITY AND LOCATION) – BACKING TYPE AND FIT (IF APPLICABLE)		X		TABLE N5.4–1	
	CONFIGURATION AND FINISH OF ACCESS HOLES		X		TABLE N5.4–1	
	FIT–UP OF FILLET WELDS – DIMENSIONS (ALIGNMENT, GAPS AT ROOT) – CLEANLINESS (CONDITION OF STEEL SURFACES) – TACKING (TACK WELD QUALITY AND LOCATION)		X		TABLE N5.4–1	
DURING WELDING	USE OF QUALIFIED WELDERS		X		TABLE N5.4–2	INSPECTOR TO OBTAIN COPY OF WELDER CERTIFICATIONS PRIOR TO START OF WORK
	CONTROL AND HANDLING OF WELDING CONSUMABLES – PACKAGING – EXPOSURE CONTROL		X		TABLE N5.4–2	
	NO WELDING OVER CRACKED TACK WELDS		X		TABLE N5.4–2	
	ENVIRONMENTAL CONDITIONS – WIND SPEED WITHIN LIMITS – PRECIPITATION AND TEMPERATURE		X		TABLE N5.4–2	
	WPS FOLLOWED – SETTINGS ON WELDING EQUIPMENT – TRAVEL SPEED – SELECTED WELDING MATERIALS – SHIELDING GAS TYPE/FLOW RATE – PREHEAT APPLIED – INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) – PROPER POSITION (F, V, H, OH)		X		TABLE N5.4–2	
	WELDING TECHNIQUES – INTERPASS AND FINAL CLEANING – EACH PASS WITHIN PROFILE LIMITATIONS – EACH PASS MEETS QUALITY REQUIREMENTS		X		TABLE N5.4–2	
AFTER WELDING	WELDS CLEANED		X		TABLE N5.4–3	
	SIZE, LENGTH AND LOCATION OF WELDS	X			TABLE N5.4–3	
	WELDS MEET VISUAL ACCEPTANCE CRITERIA – CRACK PROHIBITION – WELD/BASE–METAL FUSION – CRATER CROSS SECTION – WELD PROFILES – WELD SIZE – UNDERCUT – POROSITY	X			TABLE N5.4–3	
	ARC STRIKES	X			TABLE N5.4–3	
	k–AREA INSPECTION AT DOUBLER PLATES, CONTINUITY PLATES, OR STIFFENER PLATES	X			TABLE N5.4–3	
	BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	X			TABLE N5.4–3	
	REPAIR ACTIVITIES	X			TABLE N5.4–3	

SPECIAL INSPECTIONS PROGRAM – STRUCTURAL STEEL (AISC 360 CHAPTER N)

VERIFICATION AND INSPECTION		CONTINUOUS	PERIODIC	2015 IBC REFERENCE SECTION	AISC 360 REFERENCE	COMMENTS
PRIOR TO BOLTING	MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	X			TABLE N5.6–1	
	FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS		X		TABLE N5.6–1	
	PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)		X		TABLE N5.6–1	
	PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL		X		TABLE N5.6–1	
	CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS		X		TABLE N5.6–1	
	PRE–INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED		X		TABLE N5.6–1	
	PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS		X		TABLE N5.6–1	
DURING BOLTING	FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED		X		TABLE N5.6–2	
	JOINT BROUGHT TO THE SNUG–TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION		X		TABLE N5.6–2	
	FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING		X		TABLE N5.6–2	
	FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES		X		TABLE N5.6–2	

SPECIAL INSPECTIONS PROGRAM – STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	2015 IBC REFERENCE SECTION	REFERENCE STANDARD	COMMENTS
WELDING OF ANCHORS & SHEAR STUDS		X		AWS D1.1, SECT 7	do
WELDING OF STAINLESS STEEL		X		AWS D1.6	do
WELDING OF STAIR/RAILING SYSTEMS		X	1705.2.1	AWS D1.1, D1.3, D1.6	do
WELDING OF REINFORCING STEEL –PERFORM ADDITIONAL INSPECTIONS IN ACCORDANCE WITH SPECIAL INSPECTIONS PROGRAM – CONCRETE				AWS D1.4 ACI 318: 3.5.2	

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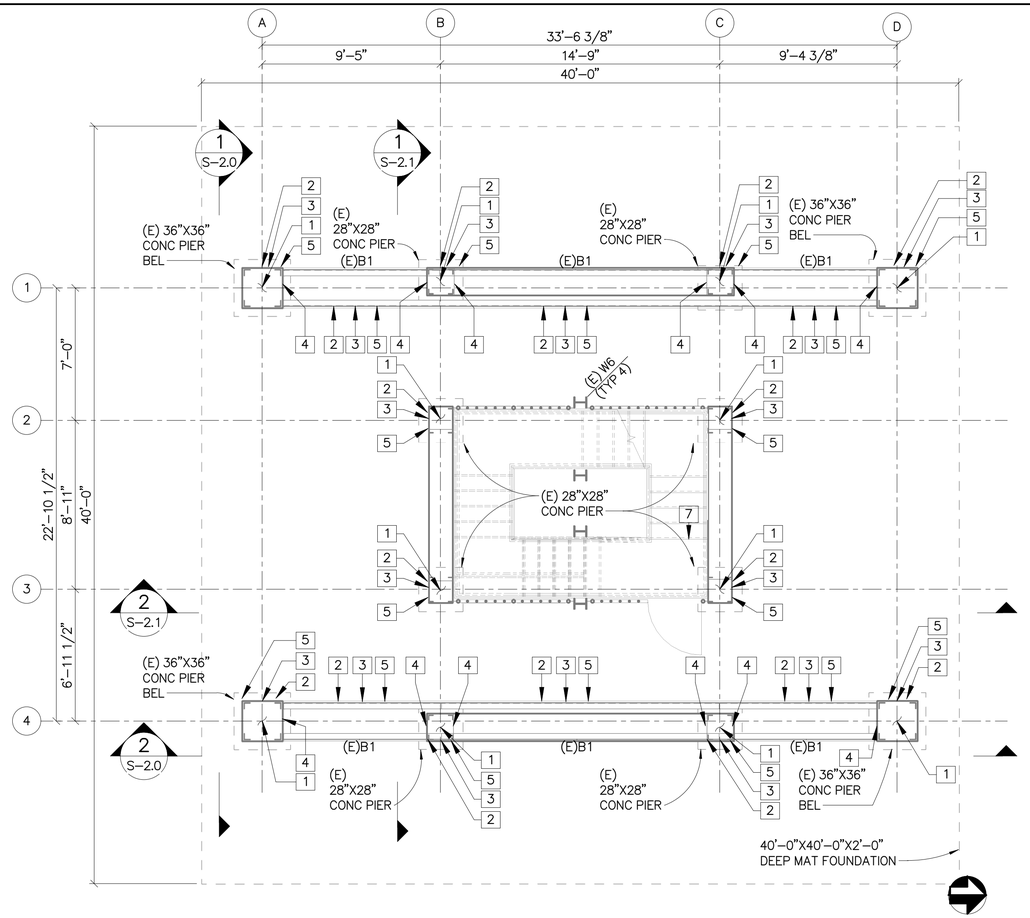
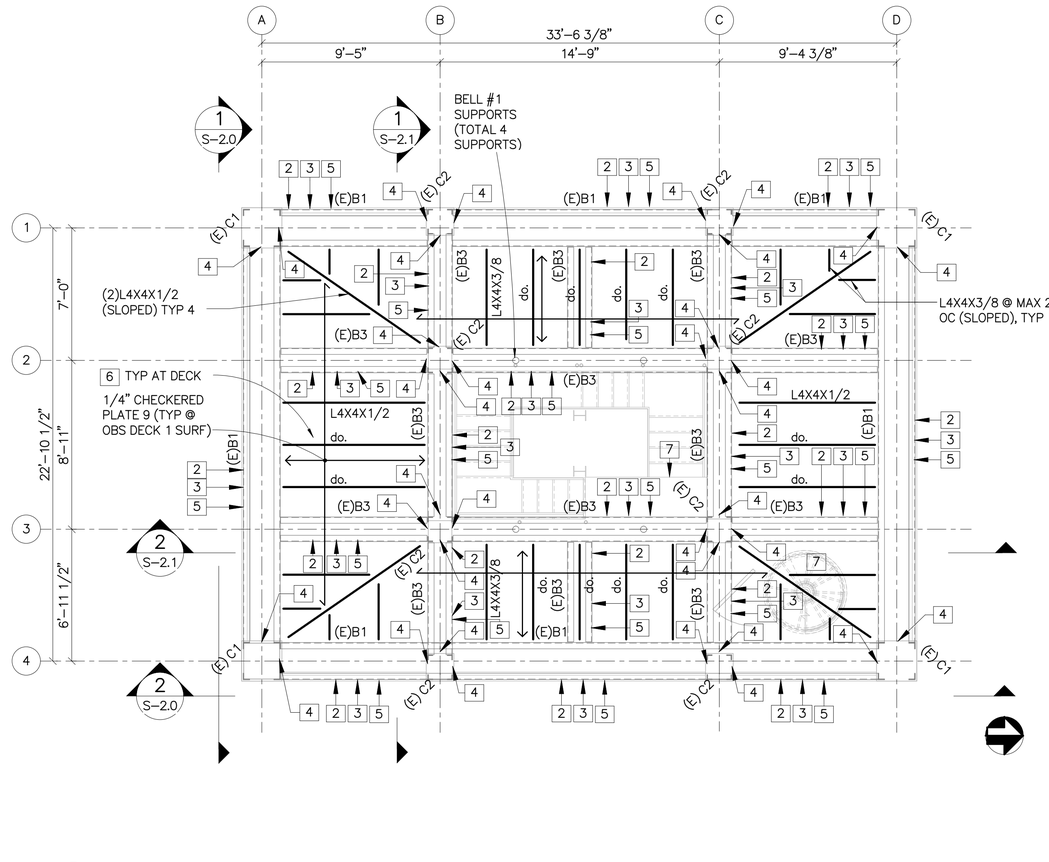


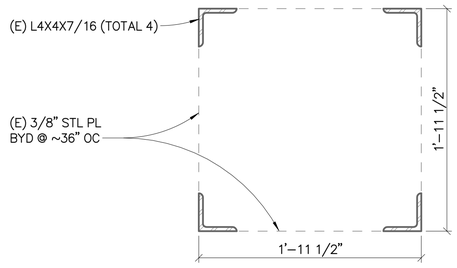
1 S–1.0 PLAN – TOWER FOUNDATION
SCALE (B)



2 S–1.0 PLAN – OBSERVATION DECK 1
SCALE (B)

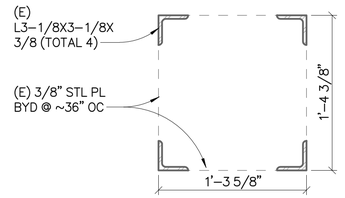
KEYNOTE LEGEND	
KEY VALUE	KEYNOTE TEXT
1	RESLOPE CONCRETE INFILL AT BASE OF CORNER COLUMNS TO ACHIEVE ADEQUATE POSITIVE DRAINAGE AWAY FROM ADJACENT STEEL ANGLE STRUCTURAL STEEL SUPERSTRUCTURE. RESLOPED CONCRETE SHALL BE CAREFULLY APPLIED TO ENSURE PONDING OF WATER DOES NOT OCCUR AT THE BASE OF THE STRUCTURAL STEEL SUPERSTRUCTURE. REFERENCE ARCHITECTURAL section 5/A–5.0.
2	REMOVE ALL EXISTING METAL PANEL CLADDING PLATES FOR CLEANING AND EVALUATION. PLATES SHALL BE CLEANED TO REMOVE CORROSION AND RUST SCALING DEPOSITS. PANELS WITH MORE THAN 15% SECTION LOSS SHALL BE REPLACED IN KIND. PANELS SHALL BE COATED WITH METALIZING AND NEW TNEMEC SYSTEM PER PROJECT SPECIFICATIONS. PANELS SHALL BE REINSTALLED UTILIZING NEW GALVANIZED OR STAINLESS STEEL CONNECTION HARDWARE AND RUBBER ISOLATION WASHERS / GROMMETS. RESLOPE TOP PANEL SURFACES TO ELIMINATE PONDING ON PANEL AND TO PROMOTE ADEQUATE POSITIVE DRAINAGE. COORDINATE WITH ARCHITECTURAL SECTION 5/A–5.0.
3	PROVIDE PASSIVE VENTILATION THROUGH INSTALLATION OF VENTING AND WEEP HOLE IN ALL STRUCTURAL MEMBERS (BEAMS AND COLUMNS) ENCLOSED BY CLADDING. COORDINATE WITH ARCHITECTURAL DRAWINGS.
4	VISUALLY OBSERVE EXISTING BOX–BEAM TO BOX–COLUMN CONNECTIONS. TIGHTEN ALL LOOSE BOLTS AND NUT HARDWARE FOLLOWING REMOVAL OF CLADDING. EXECUTE SUPPLEMENTAL FIELD WELDING AT LOCATIONS WHERE CONNECTION CONGESTION PREVENTS BOLT TIGHTENING.
5	WIRE BRUSH CLEAN TO BARE METAL ALL STRUCTURAL STEEL (BEAMS, COLUMNS, AND CONNECTIONS) TO REMOVE SURFACE CORROSION AND RUST SCALING DEPOSITS. REINFORCE STRUCTURAL MEMBERS WHERE PANELS HAVE EXPERIENCED MORE THAN 5% SECTION LOSS (REFERENCE SECTIONS 1 & 2 ON STRUCTURAL SHEET S–4.1). REINFORCEMENT SHALL CONSIST OF FIELD WELDING NEW GALVANIZED STEEL REINFORCEMENT SECTIONS TO THE EXISITNG COMPROMISED MEMBERS. PROVIDE FIELD APPLIED COLD GALVANIC COATING AT AREAS OF ORIGINAL METLAIZED SURFACE LOSS, COORDINATE WITH ARCHITECTURAL DRAWINGS.
6	REMOVE EXISTING CHECKERED PLATE FLOOR. REMOVE SUPPORTING HORIZONTAL STEEL ANGLE SUPPORTS AS REQUIRED TO FACILITATE REMOVAL OF ALL FLOOR MEMBERS. PROVIDE NEW HORIZONTAL GALVANIZED STEEL ANGLE SUPPORTS AS REQUIRED. PROVIDE NEW GALVANIZED STEEL CHECKERED PLATE FLOOR WITH ADEQUATE SLOPE TO PROMOTE POSITIVE DRAINAGE AWAY FROM SUPPORTING STRUCTURAL STEEL MEMBERS (BEAMS AND COLUMNS) AND THE CENTER OF THE CARILLON. COORDINATE WITH ARCHITECTURAL PLANS AND SECTIONS, SHEET A–5.1
7	REMOVE EXISTING CHECKERED PLATES AT ALL STAIR LANDINGS . PROVIDE NEW GALVANIZED STEEL CHECKERED PLATES AT ALL LANDINGS WITH ADEQUATE SLOPE TO ELIMINATE PONDING ON PANEL AND TO PROMOTE POSITIVE DRAINAGE AWAY FROM SUPPORTING STRUCTURAL STEEL ELEMENTS (BEAMS AND COLUMNS).

NOTES:
1. SEE PLAN 1/S–1.1 AND ELEVATIONS FOR TYPICAL ABOVE GRADE COLUMN REPAIRS.
2. SEE SHEET S–4.1 FOR WEIGHT OF EXISTING AND NEW BELLS.



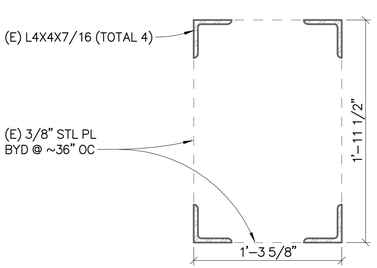
4 S–1.0 SECTION – COL1 (C1) / BM1 (B1)
SCALE (E)

NOTE:
EXISTING SECTION PROVIDED FOR REFERENCE ONLY.
METAL PLATE CLADDING NOT SHOWN FOR CLARITY.



5 S–1.0 SECTION – COL2 (C2) / BM2 (B2)
SCALE (E)

NOTE:
EXISTING SECTION PROVIDED FOR REFERENCE ONLY.
METAL PLATE CLADDING NOT SHOWN FOR CLARITY.



6 S–1.0 SECTION – BM3 (B3)
SCALE (E)

NOTE:
EXISTING SECTION PROVIDED FOR REFERENCE ONLY.
METAL PLATE CLADDING NOT SHOWN CLARITY.

SCALE (B) 4 0 4 8 SCALE OF FEET 1/4"=1'–0"

SCALE (E) 12 0 12 SCALE OF FEET 1 1/2"=1'–0"

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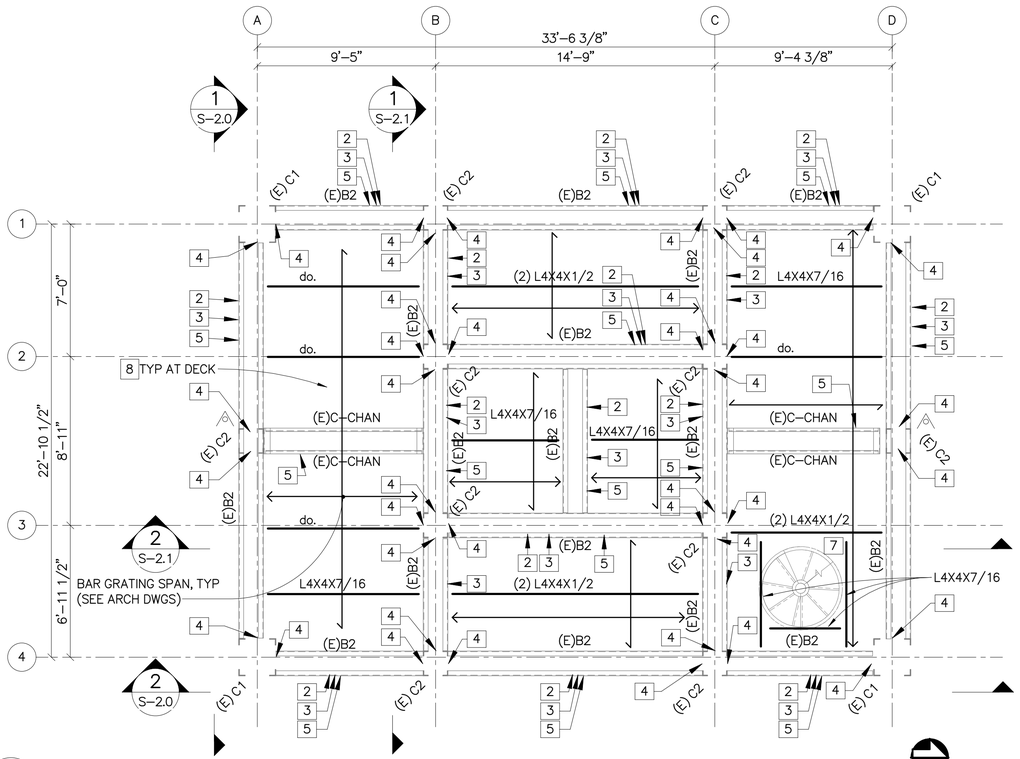
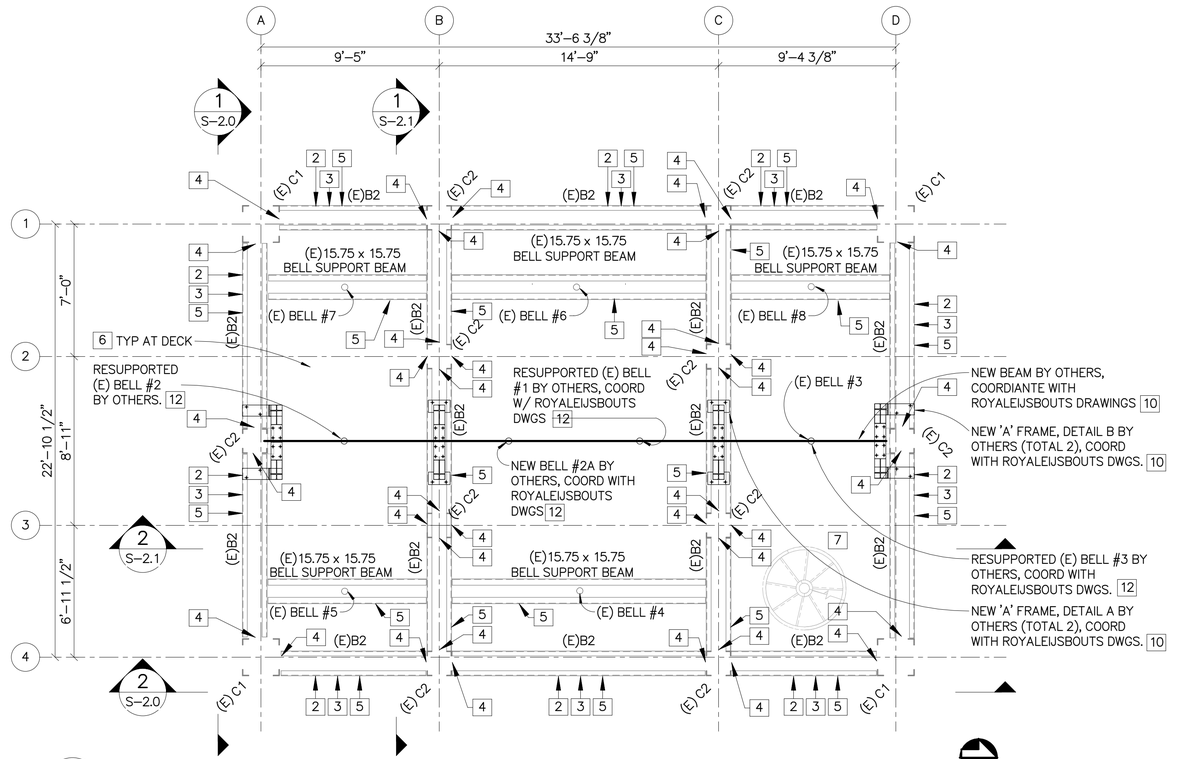


1 S–1.1 PLAN – LOWER BELL CHAMBER
SCALE B



2 S–1.1 PLAN – BELL SUPPORT
SCALE B

NOTES:
1. SEE PLAN 1/S–1.1 AND ELEVATIONS FOR TYPICAL ABOVE GRADE COLUMN REPAIRS.

KEYNOTE LEGEND	
KEY VALUE	KEYNOTE TEXT
2	REMOVE ALL EXISTING METAL PANEL CLADDING PLATES FOR CLEANING AND EVALUATION. PLATES SHALL BE CLEANED TO REMOVE CORROSION AND RUST SCALING DEPOSITS. PANELS WITH MORE THAN 15% SECTION LOSS SHALL BE REPLACED IN KIND. PANELS SHALL BE COATED WITH METALIZING AND NEW TNEMEC SYSTEM PER PROJECT SPECIFICATIONS. PANELS SHALL BE REINSTALLED UTILIZING NEW GALVANIZED OR STAINLESS STEEL CONNECTION HARDWARE AND RUBBER ISOLATION WASHERS / GROMMETS. RESLOPE TOP PANEL SURFACES TO ELIMINATE PONDING ON PANEL AND TO PROMOTE ADEQUATE POSITIVE DRAINAGE. COORDINATE WITH ARCHITECTURAL SECTION 5/A–5.0.
3	PROVIDE PASSIVE VENTILATION THROUGH INSTALLATION OF VENTING AND WEEP HOLE IN ALL STRUCTURAL MEMBERS (BEAMS AND COLUMNS) ENCLOSED BY CLADDING. COORDINATE WITH ARCHITECTURAL DRAWINGS.
4	VISUALLY OBSERVE EXISTING BOX–BEAM TO BOX–COLUMN CONNECTIONS. TIGHTEN ALL LOOSE BOLTS AND NUT HARDWARE FOLLOWING REMOVAL OF CLADDING. EXECUTE SUPPLEMENTAL FIELD WELDING AT LOCATIONS WHERE CONNECTION CONGESTION PREVENTS BOLT TIGHTENING.
5	WIRE BRUSH CLEAN TO BARE METAL ALL STRUCTURAL STEEL (BEAMS, COLUMNS, AND CONNECTIONS) TO REMOVE SURFACE CORROSION AND RUST SCALING DEPOSITS. REINFORCE STRUCTURAL MEMBERS WHERE PANELS HAVE EXPERIENCED MORE THAN 5% SECTION LOSS (REFERENCE SECTIONS 1 & 2 ON STRUCTURAL SHEET S–4.1). REINFORCEMENT SHALL CONSIST OF FIELD WELDING NEW GALVANIZED STEEL REINFORCEMENT SECTIONS TO THE EXISITNG COMPROMISED MEMBERS. PROVIDE FIELD APPLIED COLD GALVANIC COATING AT AREAS OF ORIGINAL METLAIZED SURFACE LOSS, COORDINATE WITH ARCHITECTURAL DRAWINGS.
6	REMOVE EXISTING CHECKERED PLATE FLOOR. REMOVE SUPPORTING HORIZONTAL STEEL ANGLE SUPPORTS AS REQUIRED TO FACILITATE REMOVAL OF ALL FLOOR MEMBERS. PROVIDE NEW HORIZONTAL GALVANIZED STEEL ANGLE SUPPORTS AS REQUIRED. PROVIDE NEW GALVANIZED STEEL CHECKERED PLATE FLOOR WITH ADEQUATE SLOPE TO PROMOTE POSITIVE DRAINAGE AWAY FROM SUPPORTING STRUCTURAL STEEL MEMBERS (BEAMS AND COLUMNS) AND THE CENTER OF THE CARILLON. COORDINATE WITH ARCHITECTURAL PLANS AND SECTIONS, SHEET A–5.1
8	REMOVE EXISTING STEEL MESH CEILING. REMOVE SUPPORTING HORIZONTAL STEEL ANGLE SUPPORTS AND CONNECTION HARDWARE AS REQUIRED TO FACILITATE REMOVAL OF ENTIRE MESH CEILING. PROVIDE NEW STEEL ANGLE SUPPORTS AND STEEL GRATING FOR MAINTENANCE ACCESS. NEW GRATING SHALL BE INSTALLED TO ENSURE STEEL ANGLE SUPPORTS ARE SLOPED TO AVOID PONDING CONDITIONS. COORDINATE WITH NOTE 2 WORK. NEW BAR GRATING AS INDICATED IN THE ARCHITECTURAL DRAWINGS IS SIZED TO ACCOMMODATE A 40 PSF LIVE LOAD. COORDINATE WITH ARCITECTURAL DETAIL 6/A–5.2.
10	COORDINATE NEW BUILT–UP BEAM, 'A' FRAME SUPPORTS AND CONNECTIONS TO THE EXISTING STRUCTURE WITH ROYALEIJSBOUTS DRAWINGS.
12	EXISTING BELLS #2 AND #3 SHALL BE RESUPPORTED AT NEW BUILT–UP BEAM. EXISTING BELL #1 SHALL BE RELOCATED AND SUPPORTED AT NEW BUILT–UP BEAM. NEW BELL #2A SHALL BE LOCATED AND SUPPORTED AT NEW BUILT–UP BEAM. REFERENCE NOTE 10.

NOTES:
1. SEE PLAN 1/S–1.1 AND ELEVATIONS FOR TYPICAL ABOVE GRADE COLUMN REPAIRS.
2. SEE SHEET S–4.1 FOR WEIGHT OF EXISTING AND NEW BELLS.

SCALE B 4 0 4 8 SCALE OF FEET 1/4"=1'–0"

DESIGNED: LB DRAWN: SGH TECH. REVIEW: MZ DATE: 02/28/2018	SUB SHEET NO. S-1.1	TITLE OF SHEET PLANS–2 Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 14034 PMIS/PKG NO. 214371 SHEET 34 OF 61

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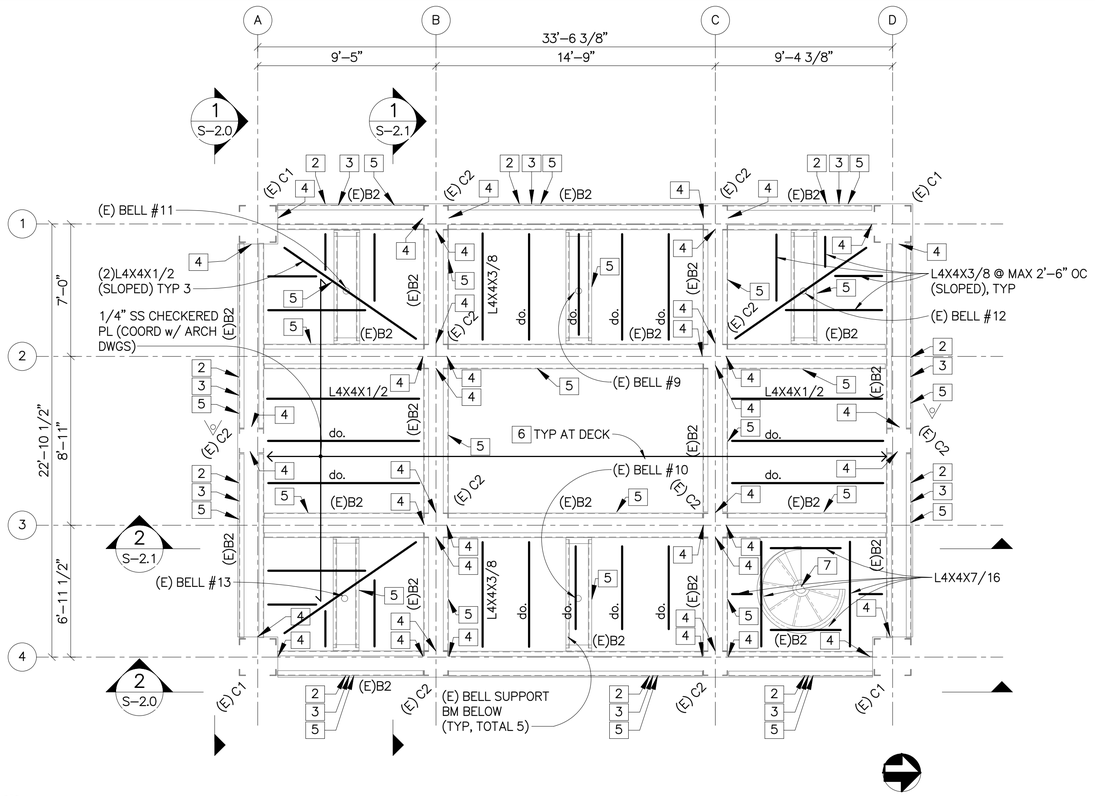
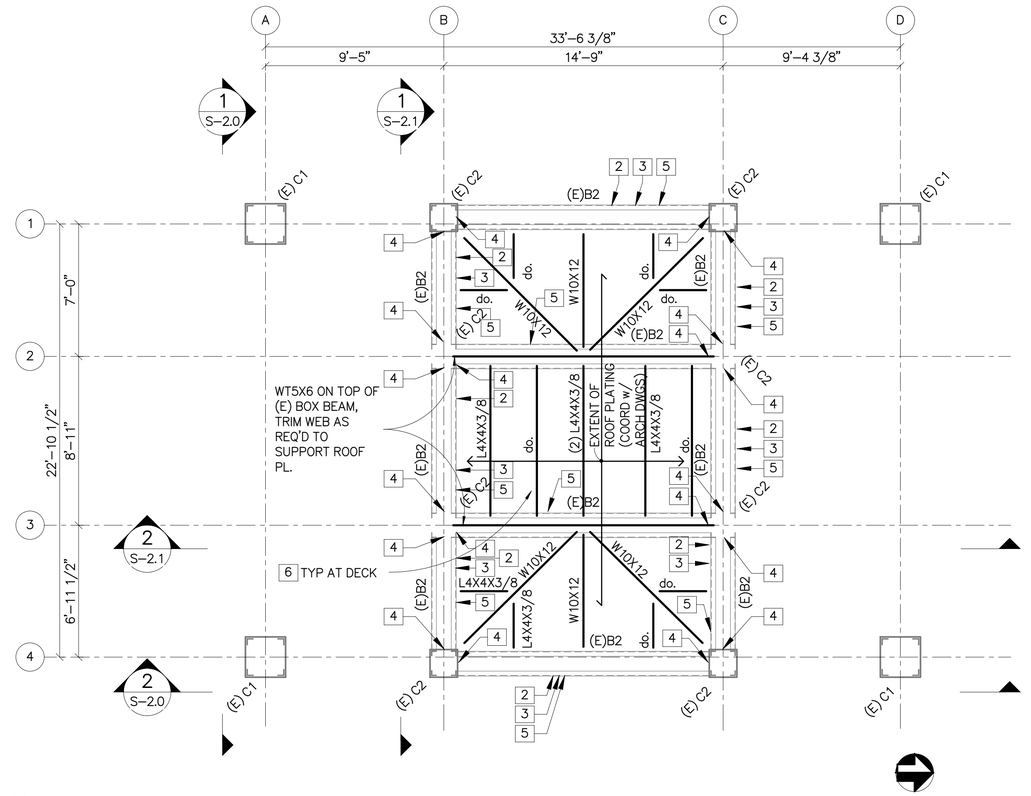


1 S–1.2 PLAN – OBSERVATION DECK 2

SCALE (B)



2 S–1.2 PLAN – BELL TOWER ROOF

SCALE (B)

NOTES:
1. SEE PLAN 1/S–1.1 AND ELEVATIONS FOR TYPICAL ABOVE GRADE COLUMN REPAIRS.
2. SEE SHEET S–4.1 FOR WEIGHT OF EXISTING AND NEW BELLS.

KEYNOTE LEGEND	
KEY VALUE	KEYNOTE TEXT
2	REMOVE ALL EXISTING METAL PANEL CLADDING PLATES FOR CLEANING AND EVALUATION. PLATES SHALL BE CLEANED TO REMOVE CORROSION AND RUST SCALING DEPOSITS. PANELS WITH MORE THAN 15% SECTION LOSS SHALL BE REPLACED IN KIND. PANELS SHALL BE COATED WITH METALIZING AND NEW TNEMEC SYSTEM PER PROJECT SPECIFICATIONS. PANELS SHALL BE REINSTALLED UTILIZING NEW GALVANIZED OR STAINLESS STEEL CONNECTION HARDWARE AND RUBBER ISOLATION WASHERS / GROMMETS. RESLOPE TOP PANEL SURFACES TO ELIMINATE PONDING ON PANEL AND TO PROMOTE ADEQUATE POSITIVE DRAINAGE. COORDINATE WITH ARCHITECTURAL SECTION 5/A–5.0.
3	PROVIDE PASSIVE VENTILATION THROUGH INSTALLATION OF VENTING AND WEEP HOLE IN ALL STRUCTURAL MEMBERS (BEAMS AND COLUMNS) ENCLOSED BY CLADDING. COORDINATE WITH ARCHITECTURAL DRAWINGS.
4	VISUALLY OBSERVE EXISTING BOX–BEAM TO BOX–COLUMN CONNECTIONS. TIGHTEN ALL LOOSE BOLTS AND NUT HARDWARE FOLLOWING REMOVAL OF CLADDING. EXECUTE SUPPLEMENTAL FIELD WELDING AT LOCATIONS WHERE CONNECTION CONGESTION PREVENTS BOLT TIGHTENING.
5	WIRE BRUSH CLEAN TO BARE METAL ALL STRUCTURAL STEEL (BEAMS, COLUMNS, AND CONNECTIONS) TO REMOVE SURFACE CORROSION AND RUST SCALING DEPOSITS. REINFORCE STRUCTURAL MEMBERS WHERE PANELS HAVE EXPERIENCED MORE THAN 5% SECTION LOSS (REFERENCE SECTIONS 1 & 2 ON STRUCTURAL SHEET S–4.1). REINFORCEMENT SHALL CONSIST OF FIELD WELDING NEW GALVANIZED STEEL REINFORCEMENT SECTIONS TO THE EXISITNG COMPROMISED MEMBERS. PROVIDE FIELD APPLIED COLD GALVANIC COATING AT AREAS OF ORIGINAL METLAIZED SURFACE LOSS, COORDINATE WITH ARCHITECTURAL DRAWINGS.
6	REMOVE EXISTING CHECKERED PLATE FLOOR. REMOVE SUPPORTING HORIZONTAL STEEL ANGLE SUPPORTS AS REQUIRED TO FACILITATE REMOVAL OF ALL FLOOR MEMBERS. PROVIDE NEW HORIZONTAL GALVANIZED STEEL ANGLE SUPPORTS AS REQUIRED. PROVIDE NEW GALVANIZED STEEL CHECKERED PLATE FLOOR WITH ADEQUATE SLOPE TO PROMOTE POSITIVE DRAINAGE AWAY FROM SUPPORTING STRUCTURAL STEEL MEMBERS (BEAMS AND COLUMNS) AND THE CENTER OF THE CARILLON. COORDINATE WITH ARCHITECTURAL PLANS AND SECTIONS, SHEET A–5.1
7	REMOVE EXISTING CHECKERED PLATES AT ALL STAIR LANDINGS . PROVIDE NEW GALVANIZED STEEL CHECKERED PLATES AT ALL LANDINGS WITH ADEQUATE SLOPE TO ELIMINATE PONDING ON PANEL AND TO PROMOTE POSITIVE DRAINAGE AWAY FROM SUPPORTING STRUCTURAL STEEL ELEMENTS (BEAMS AND COLUMNS).

SCALE (B) 4 0 4 8 SCALE OF FEET 1/4"=1'–0"

DESIGNED: LB DRAWN: SGH TECH. REVIEW: MZ DATE: 02/28/2018	SUB SHEET NO. S-1.2	TITLE OF SHEET PLANS–3 Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 14034 PMIS/PKG NO. 214371 SHEET 35 OF 61

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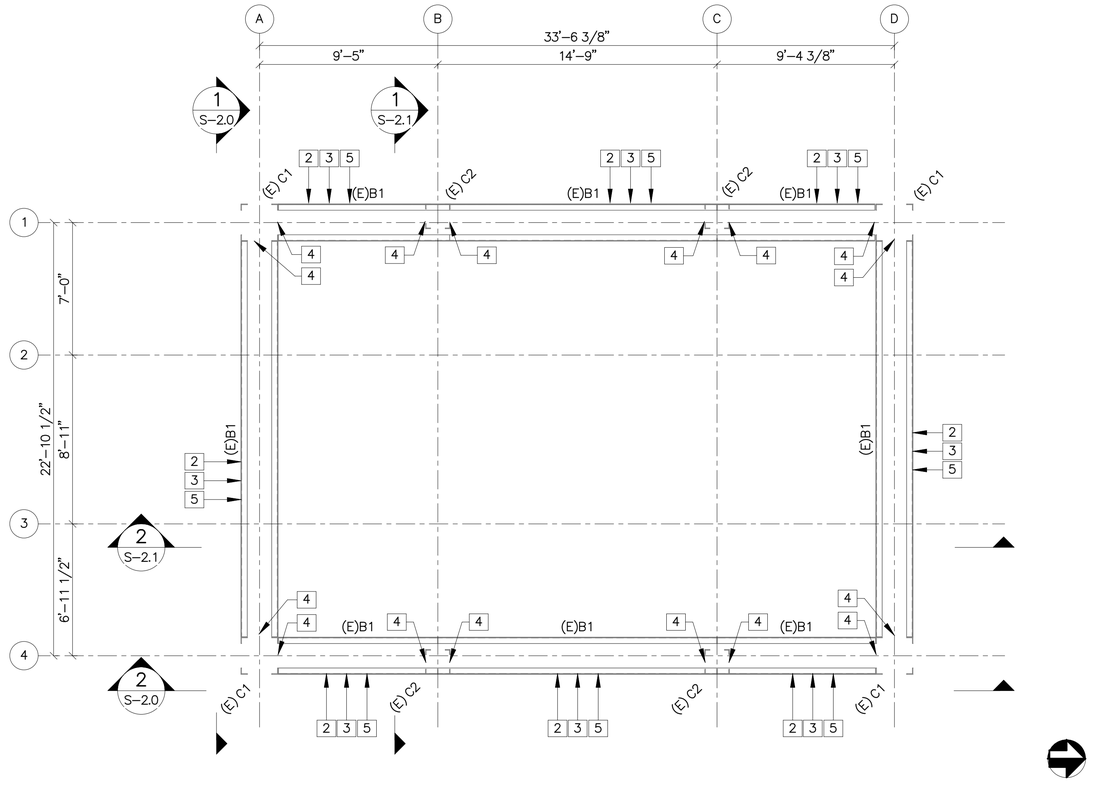


1 S–1.3 PLAN – TOP OF CARILLON

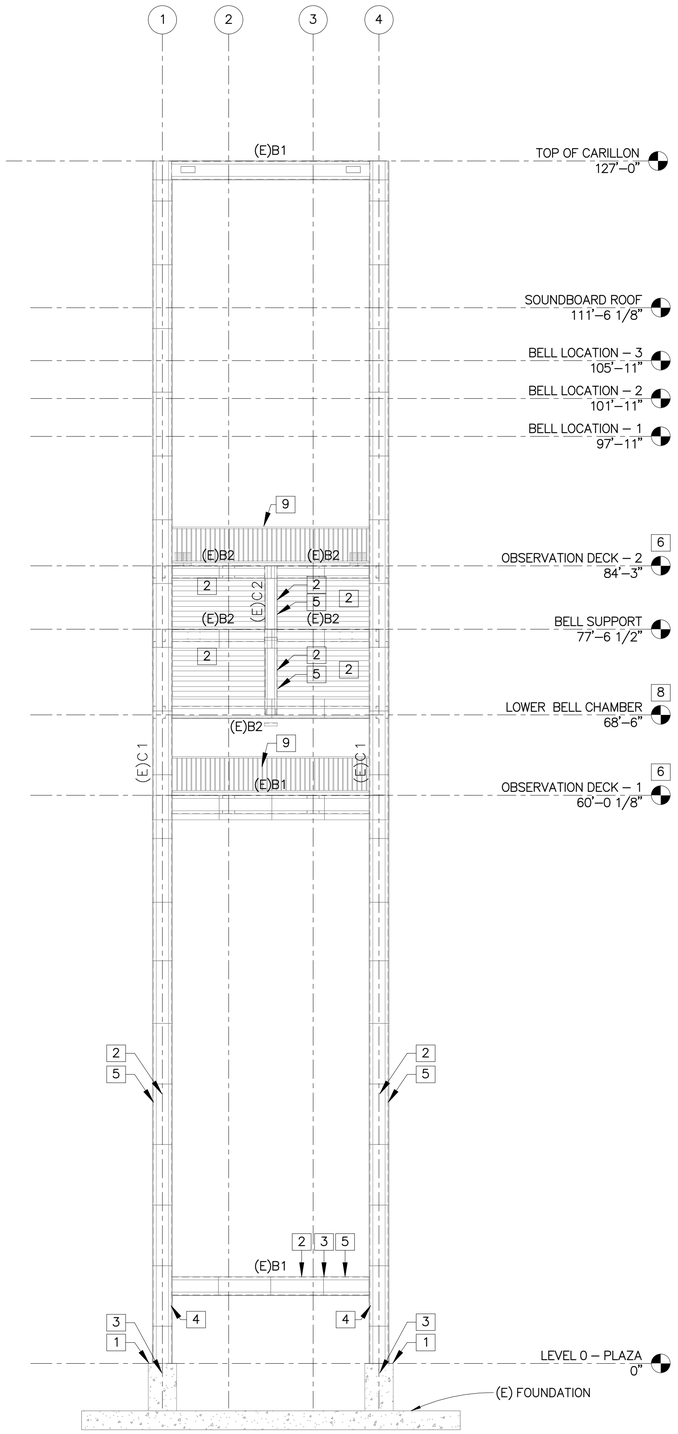
SCALE (B)

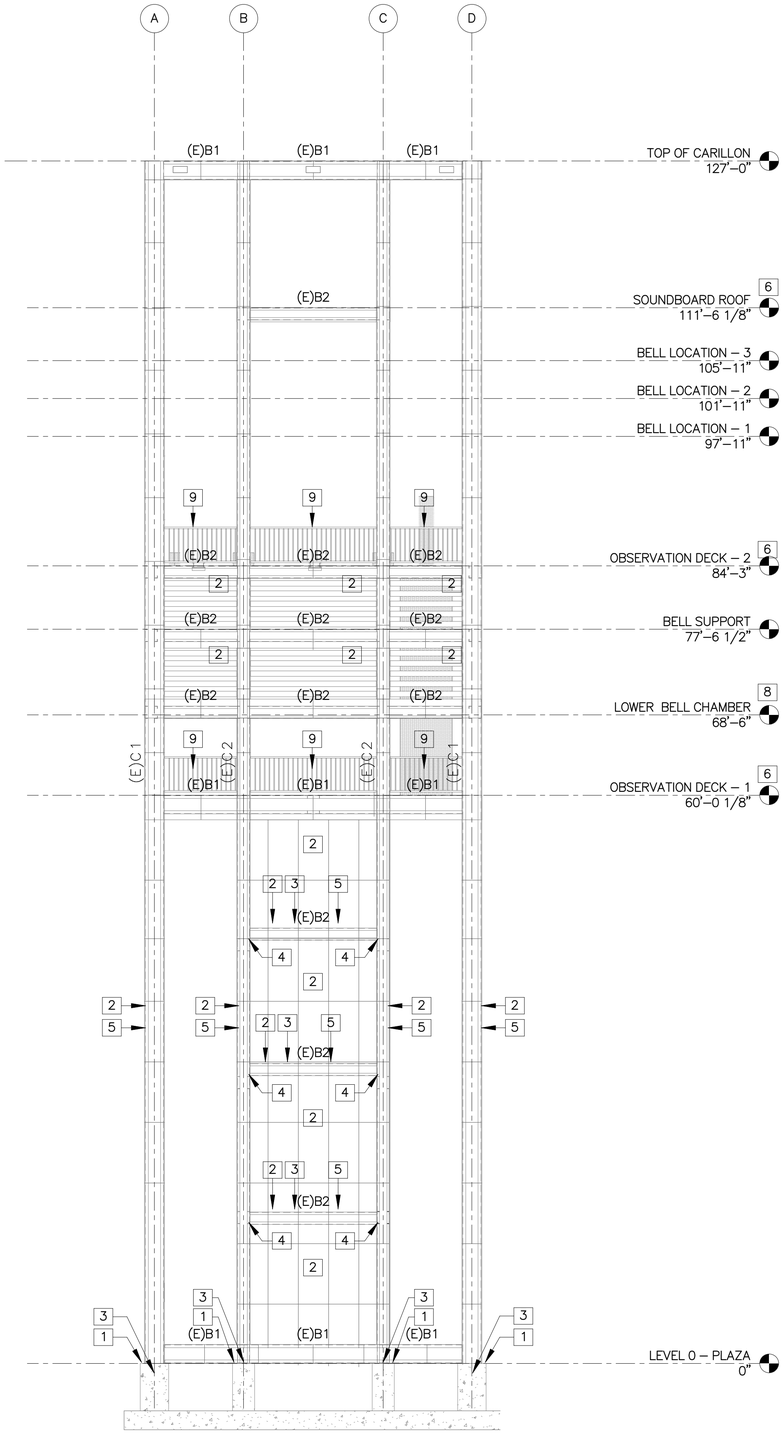
NOTES:
1. SEE PLAN 1/S–1.1 AND ELEVATIONS FOR TYPICAL ABOVE GRADE COLUMN REPAIRS.

KEYNOTE LEGEND	
KEY VALUE	KEYNOTE TEXT
2	REMOVE ALL EXISTING METAL PANEL CLADDING PLATES FOR CLEANING AND EVALUATION. PLATES SHALL BE CLEANED TO REMOVE CORROSION AND RUST SCALING DEPOSITS. PANELS WITH MORE THAN 15% SECTION LOSS SHALL BE REPLACED IN KIND. PANELS SHALL BE COATED WITH METALIZING AND NEW TNEMEC SYSTEM PER PROJECT SPECIFICATIONS. PANELS SHALL BE REINSTALLED UTILIZING NEW GALVANIZED OR STAINLESS STEEL CONNECTION HARDWARE AND RUBBER ISOLATION WASHERS / GROMMETS. RESLOPE TOP PANEL SURFACES TO ELIMINATE PONDING ON PANEL AND TO PROMOTE ADEQUATE POSITIVE DRAINAGE. COORDINATE WITH ARCHITECTURAL SECTION 5/A–5.0.
3	PROVIDE PASSIVE VENTILATION THROUGH INSTALLATION OF VENTING AND WEEP HOLE IN ALL STRUCTURAL MEMBERS (BEAMS AND COLUMNS) ENCLOSED BY CLADDING. COORDINATE WITH ARCHITECTURAL DRAWINGS.
4	VISUALLY OBSERVE EXISTING BOX–BEAM TO BOX–COLUMN CONNECTIONS. TIGHTEN ALL LOOSE BOLTS AND NUT HARDWARE FOLLOWING REMOVAL OF CLADDING. EXECUTE SUPPLEMENTAL FIELD WELDING AT LOCATIONS WHERE CONNECTION CONGESTION PREVENTS BOLT TIGHTENING.
5	WIRE BRUSH CLEAN TO BARE METAL ALL STRUCTURAL STEEL (BEAMS, COLUMNS, AND CONNECTIONS) TO REMOVE SURFACE CORROSION AND RUST SCALING DEPOSITS. REINFORCE STRUCTURAL MEMBERS WHERE PANELS HAVE EXPERIENCED MORE THAN 5% SECTION LOSS (REFERENCE SECTIONS 1 & 2 ON STRUCTURAL SHEET S–4.1). REINFORCEMENT SHALL CONSIST OF FIELD WELDING NEW GALVANIZED STEEL REINFORCEMENT SECTIONS TO THE EXISITNG COMPROMISED MEMBERS. PROVIDE FIELD APPLIED COLD GALVANIC COATING AT AREAS OF ORIGINAL METLAIZED SURFACE LOSS, COORDINATE WITH ARCHITECTURAL DRAWINGS.

SCALE (B) 4 0 4 8 SCALE OF FEET 1/4"=1'–0"

DESIGNED: LB DRAWN: SGH TECH. REVIEW: MZ DATE: 02/28/2018	SUB SHEET NO. S-1.3	TITLE OF SHEET PLANS–4 Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 14034 PMIS/PKG NO. 214371 SHEET 36 OF 61





KEYNOTE LEGEND	
KEY VALUE	KEYNOTE TEXT
1	RESLOPE CONCRETE INFILL AT BASE OF CORNER COLUMNS TO ACHIEVE ADEQUATE POSITIVE DRAINAGE AWAY FROM ADJACENT STEEL ANGLE STRUCTURAL STEEL SUPERSTRUCTURE. RESLOPED CONCRETE SHALL BE CAREFULLY APPLIED TO ENSURE PONDING OF WATER DOES NOT OCCUR AT THE BASE OF THE STRUCTURAL STEEL SUPERSTRUCTURE. REFERENCE ARCHITECTURAL section 5/A–5.0.
2	REMOVE ALL EXISTING METAL PANEL CLADDING PLATES FOR CLEANING AND EVALUATION. PLATES SHALL BE CLEANED TO REMOVE CORROSION AND RUST SCALING DEPOSITS. PANELS WITH MORE THAN 15% SECTION LOSS SHALL BE REPLACED IN KIND. PANELS SHALL BE COATED WITH METALIZING AND NEW TNEMEC SYSTEM PER PROJECT SPECIFICATIONS. PANELS SHALL BE REINSTALLED UTILIZING NEW GALVANIZED OR STAINLESS STEEL CONNECTION HARDWARE AND RUBBER ISOLATION WASHERS / GROMMETS. RESLOPE TOP PANEL SURFACES TO ELIMINATE PONDING ON PANEL AND TO PROMOTE ADEQUATE POSITIVE DRAINAGE. COORDINATE WITH ARCHITECTURAL SECTION 5/A–5.0.
3	PROVIDE PASSIVE VENTILATION THROUGH INSTALLATION OF VENTING AND WEEP HOLE IN ALL STRUCTURAL MEMBERS (BEAMS AND COLUMNS) ENCLOSED BY CLADDING. COORDINATE WITH ARCHITECTURAL DRAWINGS.
4	VISUALLY OBSERVE EXISTING BOX–BEAM TO BOX–COLUMN CONNECTIONS. TIGHTEN ALL LOOSE BOLTS AND NUT HARDWARE FOLLOWING REMOVAL OF CLADDING. EXECUTE SUPPLEMENTAL FIELD WELDING AT LOCATIONS WHERE CONNECTION CONGESTION PREVENTS BOLT TIGHTENING.
5	WIRE BRUSH CLEAN TO BARE METAL ALL STRUCTURAL STEEL (BEAMS, COLUMNS, AND CONNECTIONS) TO REMOVE SURFACE CORROSION AND RUST SCALING DEPOSITS. REINFORCE STRUCTURAL MEMBERS WHERE PANELS HAVE EXPERIENCED MORE THAN 5% SECTION LOSS (REFERENCE SECTIONS 1 & 2 ON STRUCTURAL SHEET S–4.1). REINFORCEMENT SHALL CONSIST OF FIELD WELDING NEW GALVANIZED STEEL REINFORCEMENT SECTIONS TO THE EXISITNG COMPROMISED MEMBERS. PROVIDE FIELD APPLIED COLD GALVANIC COATING AT AREAS OF ORIGINAL METLAIZED SURFACE LOSS, COORDINATE WITH ARCHITECTURAL DRAWINGS.
6	REMOVE EXISTING CHECKERED PLATE FLOOR. REMOVE SUPPORTING HORIZONTAL STEEL ANGLE SUPPORTS AS REQUIRED TO FACILITATE REMOVAL OF ALL FLOOR MEMBERS. PROVIDE NEW HORIZONTAL GALVANIZED STEEL ANGLE SUPPORTS AS REQUIRED. PROVIDE NEW GALVANIZED STEEL CHECKERED PLATE FLOOR WITH ADEQUATE SLOPE TO PROMOTE POSITIVE DRAINAGE AWAY FROM SUPPORTING STRUCTURAL STEEL MEMBERS (BEAMS AND COLUMNS) AND THE CENTER OF THE CARILLON. COORDINATE WITH ARCHITECTURAL PLANS AND SECTIONS, SHEET A–5.1
8	REMOVE EXISTING STEEL MESH CEILING. REMOVE SUPPORTING HORIZONTAL STEEL ANGLE SUPPORTS AND CONNECTION HARDWARE AS REQUIRED TO FACILITATE REMOVAL OF ENTIRE MESH CEILING. PROVIDE NEW STEEL ANGLE SUPPORTS AND STEEL GRATING FOR MAINTENANCE ACCESS. NEW GRATING SHALL BE INSTALLED TO ENSURE STEEL ANGLE SUPPORTS ARE SLOPED TO AVOID PONDING CONDITIONS. COORDINATE WITH NOTE 2 WORK. NEW BAR GRATING AS INDICATED IN THE ARCHITECTURAL DRAWINGS IS SIZED TO ACCOMMODATE A 40 PSF LIVE LOAD. COORDINATE WITH ARCITECTURAL DETAIL 6/A–5.2.
9	WIRE BRUSH CLEAN RAILINGS TO BARE METAL TO REMOVE SURFACE CORROSION AND RUST SCALING DEPOSITS. REMOVE AND RELPLACE RAILING COMPONENTS WHERE MORE THAN 5% SECTION LOSS HAS OCCURRED COMPROMISING THE STRUCTURAL INTEGRITY OF THE RAILING SYSTEM.

SCALE (A) 8 0 8 16
SCALE OF FEET
1/8"=1'–0"

1 S–2.0 ELEVATION – SOUTH
SCALE (A)

NOTES:
1. SEE PLAN SHEETS S–1.0, S–1.1, & S–1.2 FOR REPAIRS NOT SHOWN FOR CLARITY.

2 S–2.0 ELEVATION – EAST
SCALE (A)

NOTES:
1. SEE PLAN SHEETS S–1.0, S–1.1, & S–1.2 FOR REPAIRS NOT SHOWN FOR CLARITY.

DESIGNED: LB DRAWN: SGH TECH. REVIEW: MZ DATE: 02/28/2018	SUB SHEET NO. S–2.0	TITLE OF SHEET ELEVATIONS Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 14034 PMIS/PKG NO. 214371 SHEET 37 OF 61

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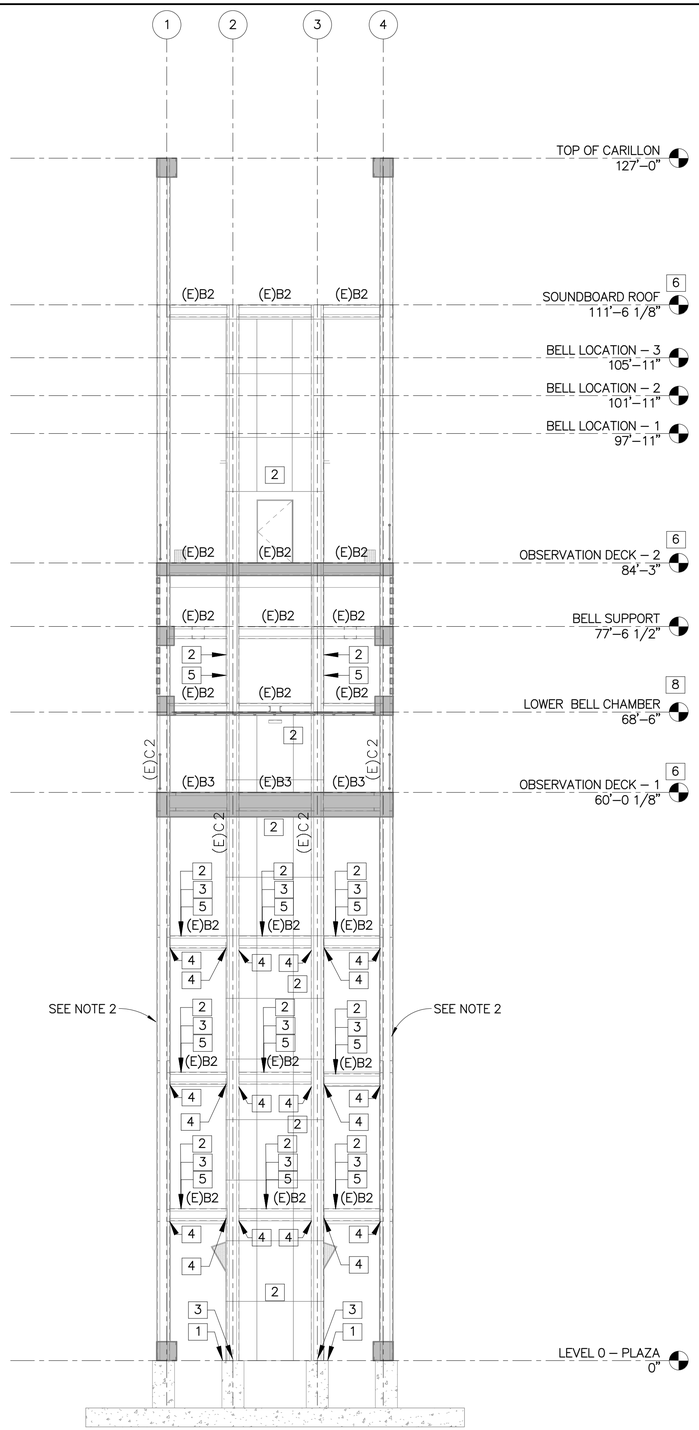
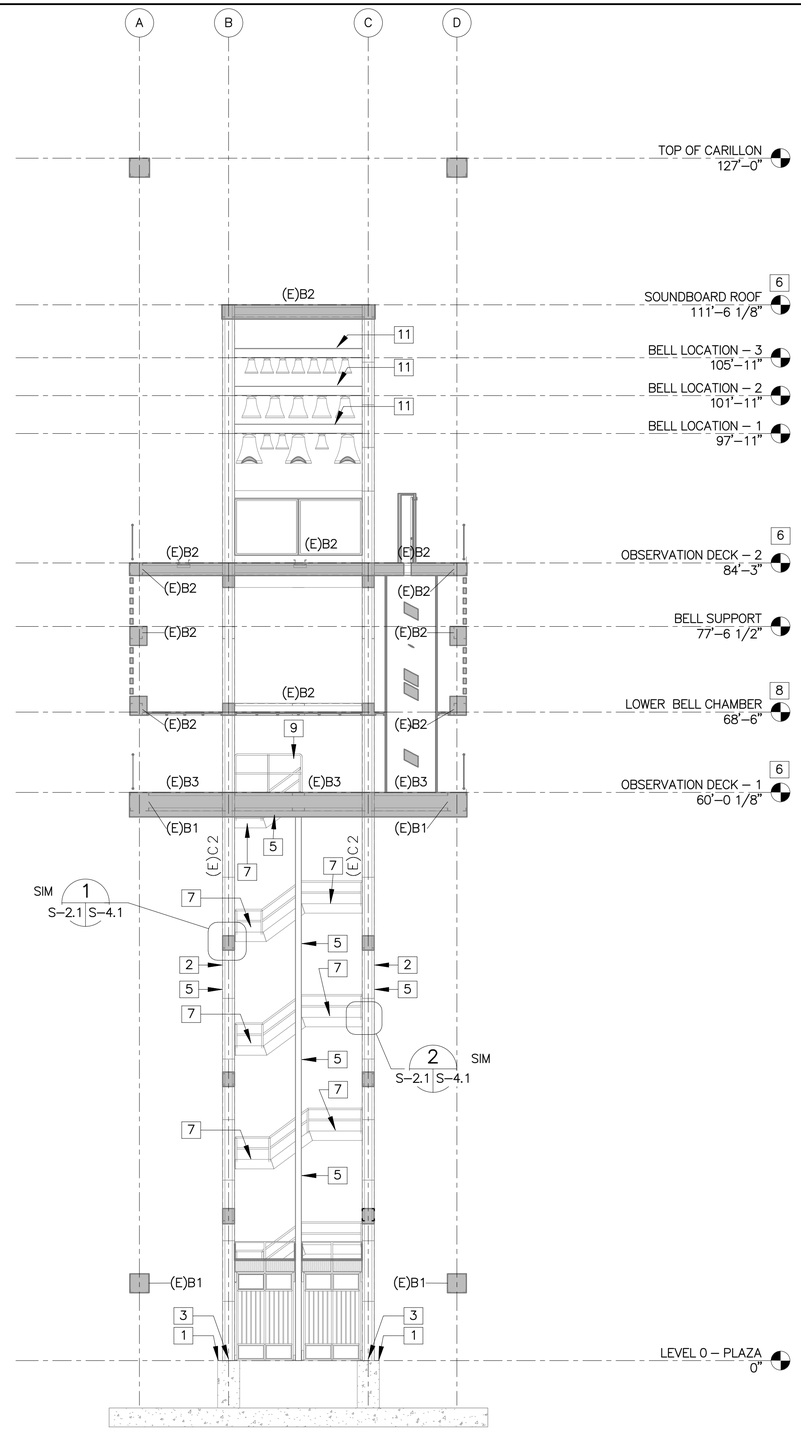


1 S–2.1 SECTION – CENTRAL CORE (FACING NORTH)
SCALE (A)

NOTES:
1. SEE PLAN SHEETS S–1.0, S–1.1, & S–1.2 FOR REPAIRS NOT SHOWN FOR CLARITY.
2. SEE ELEVATIONS ON SHEET S–2.0 FOR TYPICAL ABOVE GRADE COLUMN REPAIRS NOT SHOWN FOR CLARITY.



2 S–2.1 SECTION – CENTRAL CORE (FACING WEST)
SCALE (A)

NOTES:
1. SEE PLAN SHEETS S–1.0, S–1.1, & S–1.2 FOR REPAIRS NOT SHOWN FOR CLARITY.
2. SEE ELEVATIONS ON SHEET S–2.0 FOR TYPICAL ABOVE GRADE COLUMN REPAIRS NOT SHOWN FOR CLARITY.

KEYNOTE LEGEND	
KEY VALUE	KEYNOTE TEXT
1	RESLOPE CONCRETE INFILL AT BASE OF CORNER COLUMNS TO ACHIEVE ADEQUATE POSITIVE DRAINAGE AWAY FROM ADJACENT STEEL ANGLE STRUCTURAL STEEL SUPERSTRUCTURE. RESLOPED CONCRETE SHALL BE CAREFULLY APPLIED TO ENSURE PONDING OF WATER DOES NOT OCCUR AT THE BASE OF THE STRUCTURAL STEEL SUPERSTRUCTURE. REFERENCE ARCHITECTURAL section 5/A–5.0.
2	REMOVE ALL EXISTING METAL PANEL CLADDING PLATES FOR CLEANING AND EVALUATION. PLATES SHALL BE CLEANED TO REMOVE CORROSION AND RUST SCALING DEPOSITS. PANELS WITH MORE THAN 15% SECTION LOSS SHALL BE REPLACED IN KIND. PANELS SHALL BE COATED WITH METALIZING AND NEW TNEMEC SYSTEM PER PROJECT SPECIFICATIONS. PANELS SHALL BE REINSTALLED UTILIZING NEW GALVANIZED OR STAINLESS STEEL CONNECTION HARDWARE AND RUBBER ISOLATION WASHERS / GROMMETS. RESLOPE TOP PANEL SURFACES TO ELIMINATE PONDING ON PANEL AND TO PROMOTE ADEQUATE POSITIVE DRAINAGE. COORDINATE WITH ARCHITECTURAL SECTION 5/A–5.0.
3	PROVIDE PASSIVE VENTILATION THROUGH INSTALLATION OF VENTING AND WEEP HOLE IN ALL STRUCTURAL MEMBERS (BEAMS AND COLUMNS) ENCLOSED BY CLADDING. COORDINATE WITH ARCHITECTURAL DRAWINGS.
4	VISUALLY OBSERVE EXISTING BOX–BEAM TO BOX–COLUMN CONNECTIONS. TIGHTEN ALL LOOSE BOLTS AND NUT HARDWARE FOLLOWING REMOVAL OF CLADDING. EXECUTE SUPPLEMENTAL FIELD WELDING AT LOCATIONS WHERE CONNECTION CONGESTION PREVENTS BOLT TIGHTENING.
5	WIRE BRUSH CLEAN TO BARE METAL ALL STRUCTURAL STEEL (BEAMS, COLUMNS, AND CONNECTIONS) TO REMOVE SURFACE CORROSION AND RUST SCALING DEPOSITS. REINFORCE STRUCTURAL MEMBERS WHERE PANELS HAVE EXPERIENCED MORE THAN 5% SECTION LOSS (REFERENCE SECTIONS 1 & 2 ON STRUCTURAL SHEET S–4.1). REINFORCEMENT SHALL CONSIST OF FIELD WELDING NEW GALVANIZED STEEL REINFORCEMENT SECTIONS TO THE EXISITNG COMPROMISED MEMBERS. PROVIDE FIELD APPLIED COLD GALVANIC COATING AT AREAS OF ORIGINAL METLAIZED SURFACE LOSS, COORDINATE WITH ARCHITECTURAL DRAWINGS.
6	REMOVE EXISTING CHECKERED PLATE FLOOR. REMOVE SUPPORTING HORIZONTAL STEEL ANGLE SUPPORTS AS REQUIRED TO FACILITATE REMOVAL OF ALL FLOOR MEMBERS. PROVIDE NEW HORIZONTAL GALVANIZED STEEL ANGLE SUPPORTS AS REQUIRED. PROVIDE NEW GALVANIZED STEEL CHECKERED PLATE FLOOR WITH ADEQUATE SLOPE TO PROMOTE POSITIVE DRAINAGE AWAY FROM SUPPORTING STRUCTURAL STEEL MEMBERS (BEAMS AND COLUMNS) AND THE CENTER OF THE CARILLON. COORDINATE WITH ARCHITECTURAL PLANS AND SECTIONS, SHEET A–5.1
7	REMOVE EXISTING CHECKERED PLATES AT ALL STAIR LANDINGS . PROVIDE NEW GALVANIZED STEEL CHECKERED PLATES AT ALL LANDINGS WITH ADEQUATE SLOPE TO ELIMINATE PONDING ON PANEL AND TO PROMOTE POSITIVE DRAINAGE AWAY FROM SUPPORTING STRUCTURAL STEEL ELEMENTS (BEAMS AND COLUMNS).
9	WIRE BRUSH CLEAN RAILINGS TO BARE METAL TO REMOVE SURFACE CORROSION AND RUST SCALING DEPOSITS. REMOVE AND RELPLACE RAILING COMPONENTS WHERE MORE THAN 5% SECTION LOSS HAS OCCURRED COMPROMISING THE STRUCTURAL INTEGRITY OF THE RAILING SYSTEM.
11	COORDIANTE NEW BELL SUPPORT WITH ROYALEIJSBOUTS DRAWINGS.

SCALE (A) 8 0 8 16 SCALE OF FEET 1/8"=1'–0"

DESIGNED: LB DRAWN: SGH TECH. REVIEW: MZ DATE: 02/28/2018	SUB SHEET NO. S–2.1	TITLE OF SHEET ELEVATIONS Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 14034 PMIS/PKG NO. 214371 SHEET 38 OF 61

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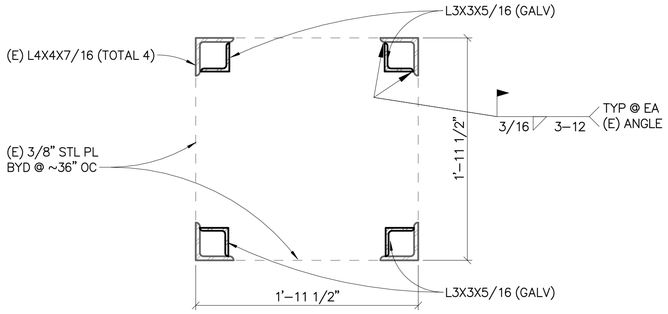
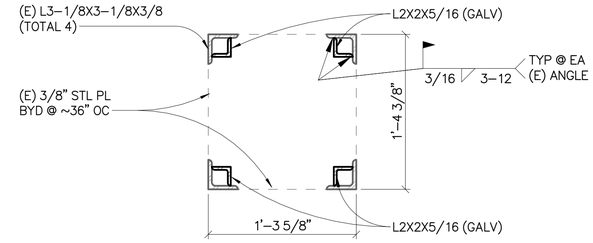
BELL #	WEIGHT (LBS)	NOTE
1	14514	EXISTING
2	10421	EXISTING
2a	8280	NEW
3	7341	EXISTING
4	5068	EXISTING
5	4307	EXISTING
6	3617	EXISTING
7	3181	EXISTING
8	2589	EXISTING
9	2120	EXISTING
10	1803	EXISTING
11	1513	EXISTING
12	1288	EXISTING
13	1095	EXISTING
14	836	EXISTING
15	704	EXISTING
16	583	EXISTING
17	454	EXISTING
18	407	EXISTING
19	341	EXISTING
20	290	EXISTING
21	253	EXISTING
22	220	EXISTING
23	198	EXISTING
24	176	EXISTING
25	154	EXISTING
26	141	EXISTING
27	130	EXISTING
28	119	EXISTING
29	109	EXISTING
30	99	EXISTING
31	90	EXISTING
32	81	EXISTING
33	75	EXISTING
34	68	EXISTING
35	62	EXISTING
36	57	EXISTING
37	53	EXISTING
38	48	EXISTING
39	44	EXISTING
40	40	EXISTING
41	37	EXISTING
42	35	EXISTING
43	34	EXISTING
44	33	EXISTING
45	32	EXISTING
46	31	EXISTING
47	30	EXISTING
48	29	EXISTING
49	28	EXISTING
50	28	EXISTING
51	<100	NEW
52	<100	NEW

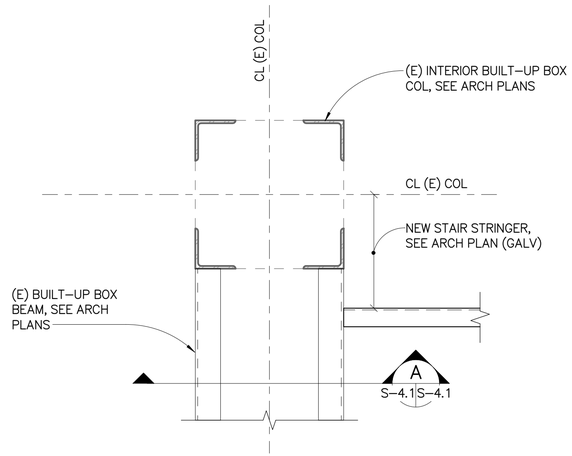
* BELL WEIGHTS NOTED ABOVE INCLUDE 1994 REPAIRS AND PROPOSED RESTORATION ADJUSTMENTS TO EXISTING BELLS, CLAPPERS, HEADSTOCKS, ETC. AS PROVIDED BY ROYALEIJSBOUTS.



1 S–4.1 SECTION – COL1 (C1) STRENGTHENING
SCALE (E)

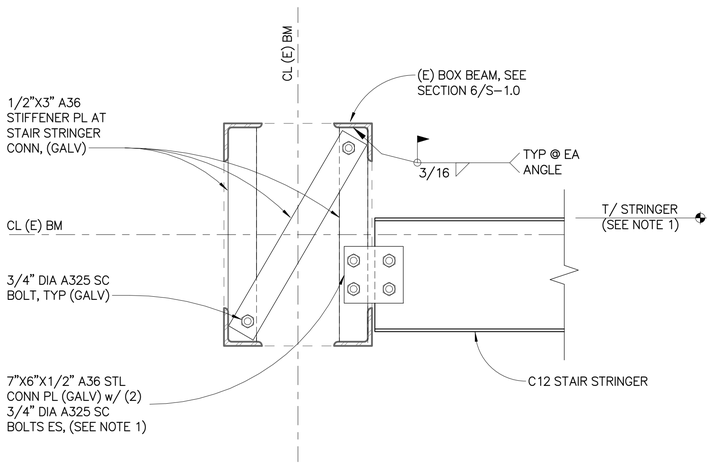


2 S–4.1 SECTION – COL2 (C2) STRENGTHENING
SCALE (E)



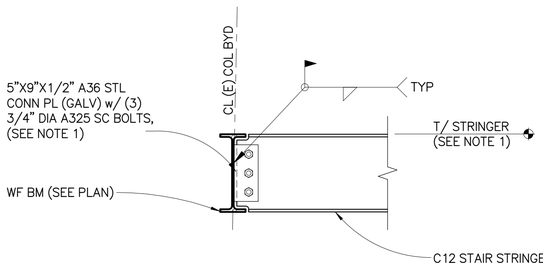
3 S–4.1 PLAN – TYP STAIR STRINGER CONN AT (E) BUILT–UP BOX BEAM
SCALE (D)

NOTES:
1. ELEVATION OF CONNECTION PLATE AND STRINGER VARY, COORDINATE WITH ARCHITECTURAL DRAWINGS.
2. CLADDING NOT SHOWN FOR CLARITY, SEE ARCHITECTURAL DRAWINGS.



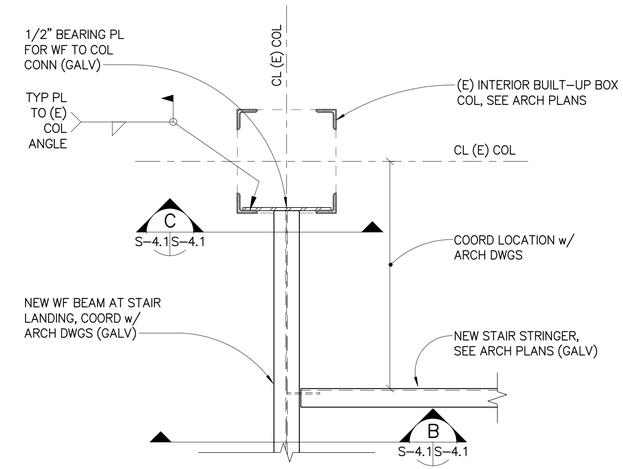
A S–4.1 SECTION – TYP STAIR STRINGER CONN AT (E) BUILT–UP BOX BEAM
SCALE (D)

NOTES:
1. ELEVATION OF CONNECTION PLATE AND STRINGER VARY, COORDINATE WITH ARCHITECTURAL DRAWINGS.
2. CLADDING NOT SHOWN FOR CLARITY, SEE ARCHITECTURAL DRAWINGS.



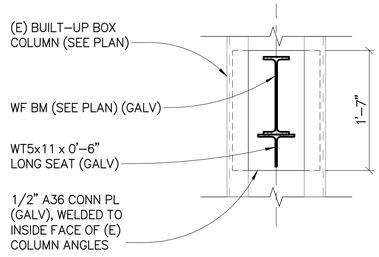
B S–4.1 SECTION – TYP STAIR STRINGER CONN AT NEW BEAM
SCALE (D)

NOTES:
1. ELEVATION OF WIDE FLANGE BEAM, CONNECTION PLATE AND STRINGER VARY, COORDINATE WITH ARCHITECTURAL DRAWINGS.
2. CLADDING NOT SHOWN FOR CLARITY, SEE ARCHITECTURAL DRAWINGS.



4 S–4.1 PLAN – TYP STAIR STRINGER CONN AT(E) BUILT–UP BOX BEAM
SCALE (D)

NOTES:
1. ELEVATION OF CONNECTION PLATE AND STRINGER VARY, COORDINATE WITH ARCHITECTURAL DRAWINGS.
2. CLADDING NOT SHOWN FOR CLARITY, SEE ARCHITECTURAL DRAWINGS.



C S–4.1 SECTION – NEW BEAM CONN @ (E) BUILT–UP BOX COLUMN
SCALE (D)

NOTES:
1. ELEVATION OF WIDE FLANGE BEAM, CONNECTION PLATE AND STRINGER VARY, COORDINATE WITH ARCHITECTURAL DRAWINGS.
2. CLADDING NOT SHOWN FOR CLARITY, SEE ARCHITECTURAL DRAWINGS.

SCALE (D) 1 0 1 1 SCALE OF FEET 1"=1'–0"

SCALE (E) 12 0 12 SCALE OF FEET 1 1/2"=1'–0"

DESIGNED: LB DRAWN: SGH TECH. REVIEW: MZ DATE: 02/28/2018	SUB SHEET NO. S-4.1	TITLE OF SHEET SECTIONS & DETAILS – STEEL Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 14034 PMIS/PKG NO. 214371 SHEET 39 OF 61

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HVAC GENERAL NOTES

1. ALL HVAC WORK SHALL BE IN ACCORDANCE WITH APPLICABLE FEDERAL CODES INCLUDING AMENDMENTS PER NATIONAL PARK SERVICE REQUIREMENTS:
 2015 INTERNATIONAL EXISTING BUILDING CODE
 2015 INTERNATIONAL BUILDING CODE
 2015 INTERNATIONAL MECHANICAL CODE
 2015 INTERNATIONAL ENERGY CONSERVATION CODE

2. INDOOR DESIGN CONDITIONS:
SUMMER (COOLING): 75ºF, 50% RH, AT 92ºF DB/76ºF WB OUTDOOR.
WINTER (HEATING): 70ºF AT 15ºF OUTDOOR.

3. THE HEATING, VENTILATING AND AIR CONDITIONING (HVAC) CONTRACTOR SHALL VISIT THE SITE TO DETERMINE ALL PRE-EXISTING CONDITIONS AND WORK NECESSARY PRIOR TO SUBMISSION OF BID PRICE.

4. THE HEATING, VENTILATING AND AIR CONDITIONING (HVAC) CONTRACTOR SHALL BE FAMILIAR WITH ALL CONTRACT DOCUMENTS FOR ALL TRADES AND COORDINATE WITH OTHER CONTRACTORS.

5. DRAWINGS ARE DIAGRAMMATIC ONLY: FINAL ROUTING OF PIPING AND EQUIPMENT LOCATIONS SHALL BE DETERMINED IN THE FIELD ADDITIONAL OFFSETS, ELBOWS, ETC., SHALL BE PROVIDED AND INSTALLED WITHOUT ADDITIONAL COST TO THE OWNER.

6. THE HVAC CONTRACTOR SHALL COORDINATE ALL ELECTRICAL AND PLUMBING REQUIREMENTS WITH THE ELECTRICAL AND PLUMBING CONTRACTORS.

7. THE AUTOMATIC TEMPERATURE CONTROL (ATC) CONTRACTOR SHALL COORDINATE THERMOSTAT LOCATIONS WITH THE ARCHITECTURAL FURNITURE PLANS. THERMOSTATS SHALL BE INSTALLED 48" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.

8. THE HVAC CONTRACTOR SHALL FURNISH AND INSTALL ALL INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE HVAC WORK COMPLETE AND READY FOR OPERATION.

9. ALL HVAC EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

10. DEMOLITION WORK SHALL BE DONE BY THE HVAC CONTRACTOR. THE HVAC CONTRACTOR SHALL COORDINATE ALL WORK CONCERNING EXISTING EQUIPMENT AND SYSTEMS REMAINING IN THE BUILDING. ALL UNUSED PIPES AS A RESULT OF THE DEMOLITION SHALL BE CAPPED, SEALED AND INSULATED.

11. THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE INTEGRITY, CONDITION AND LOCATION OF EXISTING PIPING WHICH IS TO BE REUSED. IF PIPING CANNOT BE REUSED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ ENGINEER TO DETERMINE THE EXTENT OF REPLACEMENT.

12. FURNISH TO THE GENERAL CONTRACTOR ALL INFORMATION REQUIRED FOR SETTING OF WALL, ROOF AND PARTITION OPENINGS FOR HVAC WORK. THIS INFORMATION SHALL BE FURNISHED IN A TIMELY MANNER SUCH THAT CONSTRUCTION SCHEDULE IS NOT JEOPARDIZED.

13. INFORM AND COORDINATE WITH THE OWNER ALL NECESSARY INTERRUPTIONS TO EXISTING BUILDING SYSTEMS AND SERVICE THAT MAY AFFECT THE NORMAL OPERATION OF OCCUPIED PORTIONS OF THE BUILDING. THE OWNER SHALL BE INFORMED OF ANY INTERRUPTIONS AT LEAST TWO (2) WEEKS IN ADVANCE.

14. INFORM THE OWNER WELL IN ADVANCE OF ANY WORK TO BE UNDERTAKEN IN OCCUPIED AREAS OF THE BUILDING ASSOCIATED WITH THIS PROJECT. CONFORM NOISE LIMITS IN THE PORTIONS OF THE BUILDING WHICH REMAIN OCCUPIED DURING CONSTRUCTION.

15. COORDINATE PHASING REQUIREMENTS FOR THE PROJECT WITH THE GENERAL CONTRACTOR.

16. FIELD MEASURE THE EXACT SIZES AND VERIFY ALL OPENINGS FOR SHAFTS AND LOUVERS PRIOR TO SUBMISSION OF SHOP DRAWINGS AND INSTALLATION.

17. MINIMAL CONTROL POWER HAS BEEN IDENTIFIED ON THE DRAWINGS. IF ANY ADDITIONAL POWER IS REQUIRED BASED ON SYSTEMS DESIGN BY THE CONTROLS CONTRACTOR THE ATC/BAS CONTRACTOR SHALL BE RESPONSIBLE TO SUPPLY THAT POWER.

18. THE HVAC CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL MECHANICAL EQUIPMENT, PIPING, ETC. TO FIT WITHIN THE SPACE ALLOWED BY THE ARCHITECTURAL AND STRUCTURAL CONDITIONS. CUTTING OR OTHERWISE ALTERING ANY STRUCTURAL MEMBERS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT.

19. ANY EXISTING WALL, FLOOR, OR CEILING SURFACE THAT IS DISTURBED DURING THE COURSE OF THE HVAC WORK SHALL BE REPAIRED TO MATCH NEW AND/OR EXISTING CONDITIONS.

20. PROVIDE ACCESS PANELS IN NON-ACCESSIBLE CEILINGS AND IN WALL STRUCTURES OF ADEQUATE SIZE TO ALLOW FOR MAINTENANCE, BALANCING AND COMPLETE REPLACEMENT OF EQUIPMENT WITHOUT DISTURBING PERMANENT CONSTRUCTION. ACCESS PANELS IN CEILINGS AND WALLS SHALL BE PROVIDED WHERE SHOWN ON THE PLANS OR NECESSARY TO ACCESS DAMPERS, VALVES, ETC. COORDINATE EXACT LOCATION & SIZES OF ALL ACCESS PANELS WITH THE ARCHITECT DURING THE SHOP DRAWING PROCESS.

21. ALL PIPE PENETRATIONS OF FIRE AND/OR SMOKE-RATED ASSEMBLIES SHALL BE FIRE-STOPPED AS REQUIRED TO RESTORE THE ASSEMBLY TO ITS ORIGINAL INTEGRITY. FIRE BARRIER PRODUCTS SHALL BE AS MANUFACTURED BY TREMCO, HILTI, 3M OR APPROVED EQUAL.

22. THE HVAC CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL DRAWINGS PRIOR TO SUBMITTING SHOP DRAWINGS OR ORDERING EQUIPMENT. EQUIPMENT SHALL BE FURNISHED WIRED FOR THE VOLTAGES SHOWN ON THE ELECTRICAL PLANS.

23. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE INSTALLED WITH DISCONNECT SWITCHES AT EACH PIECE OF EQUIPMENT. COORDINATE SWITCH TYPE WITH EQUIPMENT CHARACTERISTICS, MANUFACTURER'S RECOMMENDATIONS AND THE ELECTRICAL DRAWINGS.

24. ALL REQUIRED CONTROL WIRING (INCLUDING POWER WIRING REQUIRED FOR CONTROL PANELS, DEVICES, ETC.) NOT SHOWN ON THE ELECTRICAL DRAWINGS SHALL BE INCLUDED AS PART OF THE MECHANICAL WORK.

25. UNLESS NOTED OTHERWISE, TRANSFORMERS, CONTROLS AND CONTROL WIRING REQUIRED FOR ALL MECHANICAL SYSTEMS SHALL BE FURNISHED WITH THE EQUIPMENT IT SERVES AND INSTALLED BY THE MECHANICAL CONTRACTOR. MOTOR STARTERS FOR HVAC EQUIPMENT SHALL BE FURNISHED WITH THE MOTOR OR APPARATUS WHICH IT OPERATES. MOTOR STARTER INSTALLATION SHALL BE BY THE ELECTRICAL CONTRACTOR.

26. ALL EVAPORATORS AND COOLING COILS LOCATED ABOVE THE LOWEST LEVEL FINISHED FLOOR SHALL BE INSTALLED WITH AN AUXILIARY CONDENSATE DRAIN PAN UNDER THE UNIT. PROVIDE AN ELECTRONIC WATER LEVEL DETECTOR WIRED TO SHUTDOWN THE UNIT UPON DETECTION OF WATER IN THE AUXILIARY DRAIN PAN. AS AN ALTERNATE TO THE AUXILIARY CONDENSATE DRAIN PAN, AN ELECTRONIC WATER LEVEL DETECTOR WIRED TO SHUTDOWN THE UNIT UPON DETECTION OF WATER MAY BE INSTALLED IN THE PRIMARY DRAIN LINE, THE OVERFLOW DRAIN LINE OR THE EQUIPMENT-SUPPLIED DRAIN PAN. THE WATER LEVEL DETECTOR SHALL BE LOCATED AT A POINT HIGHER THAN THE PRIMARY DRAIN LINE CONNECTION AND BELOW THE OVERFLOW RIM OF PAN.

HVAC PIPING NOTES

1. MINIMUM SIZE OF CONDENSATE DRAIN PIPING SHALL BE 3/4" UNLESS OTHERWISE NOTED.

2. ALL PIPING ABOVE GRADE SHALL BE SUPPORTED BY THE BUILDING STRUCTURE. PIPING HUNG FROM JOISTS SHALL BE HUNG FROM THE TOP CHORDS OF THE JOISTS.

3. WHERE MAXIMUM OPERATING PRESSURE IS GREATER THAN 150 PSIG IN ANY SYSTEM, THE HVAC CONTRACTOR SHALL FURNISH AND INSTALL PRODUCTS, PIPING, VALVES, FITTINGS AND ACCESSORIES WITH PRESSURE CLASSIFICATIONS THAT ARE SUITABLE FOR SERVICE. IN GENERAL, ALL PRODUCTS, PIPING, VALVES, FITTINGS AND ACCESSORIES BELOW 350 FEET OF THE HIGHEST PIPING POINT MUST HAVE PRESSURE RATINGS OF 300 PSI W.O.G. (WATER, OIL, GAS) OR GREATER. ALL PRODUCTS, PIPING, VALVES, FITTINGS, AND ACCESSORIES BELOW 575 FEET OF THE HIGHEST PIPING POINT MUST HAVE PRESSURE RATINGS OF 500 PSI W.O.G. OR GREATER.

4. EXPANSION IN PIPING SYSTEMS SHALL BE COMPENSATED FOR BY THE US OF U-BENDS, Z-BENDS OR EXPANSION JOINTS AS INDICATED. U-BENDS (LOOPS) AND Z-BENDS SHALL BE COMPLETE WITH PIPE GUIDES AND ANCHORS.

5. CONDENSATE FROM ALL COOLING COILS SHALL BE TRAPPED AND ROUTED TO THE NEAREST HUB/FLOOR DRAIN, STORM OR EXTERIOR DRY WELLS. CONDENSATE PIPING SHALL BE INSULATED COPPER. CONDENSATE SHALL BE PUMPED AS REQUIRED.

6. REFRIGERANT PIPING SHALL BE TYPE L OR REFRIGERATION SERVICE COPPER TUBING WITH BRAZED JOINTS. SUCTION PIPING SHALL BE INSULATED WITH 3/4" MANVILLE AEROTUBE II PIPE INSULATION OVER TUBING WITHOUT CUTTING. ALL JOINTS AND SEAMS SHALL BE SEALED WITH ADHESIVE.

7. REFRIGERANT PIPING CARRYING OTHER THAN GROUP A1 OR B1 REFRIGERANTS AND INTERCONNECTING SEPARATE PIECES OF EQUIPMENT AND PASSING VERTICALLY THROUGH FLOORS FROM ONE STORY TO ANOTHER SHALL BE ENCLOSED IN A CODE APPROVED RIGID AND TIGHT CONTINUOUS FIRE RESISTING PIPE DUCT OR SHAFT HAVING NO OPENINGS INTO FLOORS NOT SERVED BY THE REFRIGERATING SYSTEM, AS REQUIRED BY LOCAL CODE AUTHORITIES. THE PIPE DUCT OR SHAFT SHALL BE VENTED TO OUTDOORS.

HVAC DEMOLITION NOTES

1. ALL WORK SHALL CONFORM TO THE STATE BUILDING CODES AND ALL OTHER APPLICABLE CODES AND REGULATIONS

2. THE DRAWINGS DEPICT ONLY GENERALLY THE EXISTING CONDITIONS THE CONTRACTOR SHALL MAKE FIELD OBSERVATIONS AND CONFIRM WALL LOCATIONS, PIPING AND OTHER UTILITIES.

3. ALL CONFLICTS AND ITEMS FOR CLARIFICATIONS SHALL BE BROUGHT TO THE ENGINEER/ ARCHITECT'S ATTENTION PRIOR TO WORK IN THE AREA.

4. THE CONTRACTOR IS RESPONSIBLE TO FOLLOW BUILDING MANAGEMENT RULES WITH REGARDS TO TRASH, ELEVATORS, NOISE,SPRINKLERS AND FIRE ALARM.

5. THE CONTRACTOR SHALL MAINTAIN IN OPERATION ALL EXISTING UTILITIES DURING CONSTRUCTION.

6. ITEMS IDENTIFIED TO BE SALVAGED SHALL BE STOCKPILED IN AN AREA FOR REMOVAL BY THE OWNER. ALL OTHER ITEMS BEING REMOVED SHALL BE DISPOSED OF LEGALLY OFF SITE. ALL ITEMS BEING REMOVED AND NOT REUSED SHALL BE DISPOSED OF AS DIRECTED BY THE OWNER.

7. CAPPING OF ALL SERVICES SHALL BE PERFORMED TO LEAVE EXISTING SERVICES TO OTHER AREAS INTACT AND FUNCTIONAL.

8. ALL DEMOLITION WORK WILL BE SCHEDULED WITH BUILDING MANAGEMENT AND PERFORMED ONLY FOLLOWING APPROVAL.

9. THE CONTRACTOR SHALL INFORM BUILDING MANAGEMENT AND RECEIVE SCHEDULE APPROVAL FOR ANY REQUIRED UTILITY SHUTDOWN.

10. WHERE EQUIPMENT IS SHOWN TO BE REMOVED, THE EQUIPMENT SHALL BE DELIVERED TO BUILDING MANAGEMENT FOR STORAGE OR PROPERLY DISPOSED OF AS DIRECTED BY BUILDING MANAGEMENT.

11. ANY PIPING SHOWN TO BE REMOVED WILL BE REMOVED TO THE POINT INDICATED ON THE DRAWING OR TO THE ACTIVE MAIN AND VALVED AND CAPPED. PIPING REMOVAL SHALL INCLUDE ALL HANGERS, VALVES, INSULATION, ETC.

12. CONTRACTOR SHOULD SURVEY EXISTING CONDITIONS AND INFORM ENGINEER OF ANY DEVIATIONS PRIOR TO CONSTRUCTION.

HVAC LEGEND

ABBREVIATIONS

AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
ATC	AUTOMATIC TEMPERATURE CONTROL
CFM	CUBIC FEET PER MINUTE
CO	CLEAN OUT
DB	DRY BULB
DX	DIRECT EXPANSION
EAT	ENTERING AIR TEMPERATURE
ETR	EXISTING TO REMAIN
EP	ELECTRIC PNEUMATIC RELAY
FLA	FULL LOAD AMPS
FPM	FEET PER MINUTE
GPH	GALLONS PER HOUR
HP	HORSEPOWER
LAT	LEAVING AIR TEMPERATURE
LRA	LOCK ROTOR AMPS
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
MIN	MINIMUM
NIC	NOT IN CONTRACT
OA	OUTSIDE AIR
OED	OPEN END DRAIN
PD	PRESSURE DROP
RA	RETURN AIR
RH	RELATIVE HUMIDITY
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SP	STATIC PRESSURE (INCHES OF WATER)
WB	WET BULB TEMPERATURE °F

PIPING SYSTEMS

CD	CONDENSATION DRAIN
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION

PIPING SPECIALTIES

TEE-TURNED DOWN
ELBOW-TURNED DOWN
ELBOW-TURNED UP
PIPE ANCHOR (A)
PIPE GUIDE (G)
FLEXIBLE PIPE CONNECTION
REDUCER
PIPE CAP
UNION
COMPANION FLANGE
BLIND FLANGE
DIRECTION OF PITCH
DIRECTION OF FLOW
EXISTING PIPE TO BE REMOVED

MISCELLANEOUS

T *E/R/N — THERMOSTAT (EXISTING/RELOCATED/NEW)

TAGS - EQUIPMENT, DRAWING

EQP / # — MOTORIZED EQUIPMENT (EF, B)
UPPER - EQUIPMENT DESIGNATION
LOWER - EQUIPMENT NUMBER

EQP / # — NON-MOTORIZED EQUIPMENT (ET, AS, CV)
UPPER - EQUIPMENT DESIGNATION
LOWER - EQUIPMENT NUMBER

H-1 / A
UPPER - SECTION DESIGNATION
LOWER - DRAWING NUMBER

12 / H-1
UPPER - DETAIL DESIGNATION
LOWER - DRAWING NUMBER

VENTILATION TABLE

ROOM	ROOM FLOOR AREA	MINIMUM OPENABLE AREA TO THE OUTDOORS REQUIRED	CALCULATED OPENABLE AREA REQUIRED	OPENABLE AREA AVAILABLE	REMARKS
CLAVIER ROOM	135 SQ.FT.	4 PERCENT OF FLOOR AREA	5.4 SQ.FT.	47.9 SQ.FT.	1

REMARKS
1. VENTILATION CALCULATED PER THE INTERNATIONAL MECHANICAL CODE 2015, SECTION 402 NATURAL VENTILATION.

AIR CONDITIONING UNIT — AC

SYMBOL	SERVES	LOCATION	CF O.A.	CF TOTAL	SP	MOTOR WATTS	MOTOR FLA	FILTER	TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	HEATING CAPACITY (MBH)	CURREN V	CURREN PH	CURREN HTZ	MCA	EER @ AHRI	SEER @ AHRI	SOUND POWER LEVEL	REFRIGERANT TYPE	OPERATING WEIGHT (LBS)	REMARKS
AC-1	CLAVIER ROOM	CLAVIER ROOM	0	670	0	95	0.54	WASHABLE	24	17.5	15.4	208	1	60	1	12.2	21.2	40 dB(A)	R-410A	71	1, 2, 3

SELECTION BASED ON MITSUBISHI MODEL PCA-A24KA7 DUCTLESS SPLIT SYSTEM.

REMARKS
1. PROVIDE WITH OPTIONAL BLUE DIAMOND CONDENSATE PUMP ACCESSORY. CONDENSATE PUMP SHALL BE POWERED THRU THE UNIT POWER SOURCE.
2. INDOOR AC UNIT POWERED THRU OUTDOOR ACCU UNIT.

AIR COOLED CONDENSING UNIT — ACCU

SYMBOL	SERVES	LOCATION	O.A. AMB	TON	COMPRESSOR QTY	COMPRESSOR RL	COMPRESSOR LRA	COMPRESSOR V	COMPRESSOR PH	COMPRESSOR HTZ	CONDENSER WATTS	CONDENSER FLA	MCA	MOCP	EER @ AHRI	SEER @ AHRI	SOUND POWER LEVEL	REFRIGERANT LBS.	REFRIGERANT TYPE	OPERATING WEIGHT (LBS)	REMARKS
ACCU-1	AC-1	OUTSIDE CLAVIER ROOM	95°F	2	1	7	11	208	1	60	86	0.4	19	26	12.2	21.2	48 dB(A)	7.69	R-410A	153	1, 2, 3

SELECTION BASED ON MITSUBISHI MODEL PUZ-A24NHA7.

REMARKS
1. UNIT SHALL BE PROVIDED WITH LOW AMBIENT CONTROLS DOWN TO 0°F.
2. INDOOR AC UNIT POWERED THRU OUTDOOR ACCU UNIT.
3. PROVIDE WITH MINIMUM 12" HIGH EQUIPMENT STAND.

FINNED TUBE RADIATION (ELECTRIC) — FTR

SYMBOL	COVER TYPE	LENGTH	OUTPUT (MBH)	OUTPUT (WATTS)	POWER V	POWER PH	POWER HTZ	REMARKS
FTR-1	WALL MOUNTED	8'-0"	13.6	4,000	208	1	60	-

SELECTION BASED ON QMARK MODEL SHA.

REMARKS
1. PROVIDE WITH RELAY TO ALLOW INTERLOCK WITH AC/ACCU UNIT

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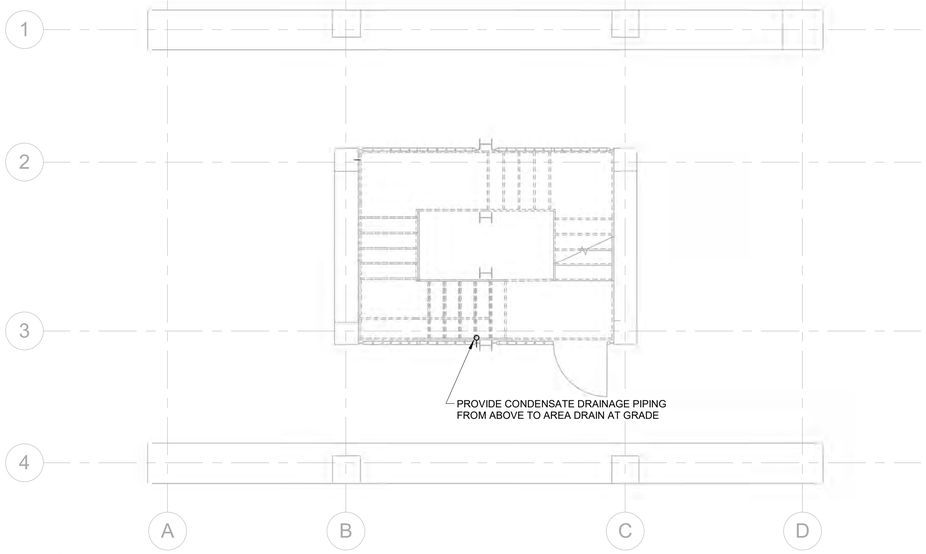
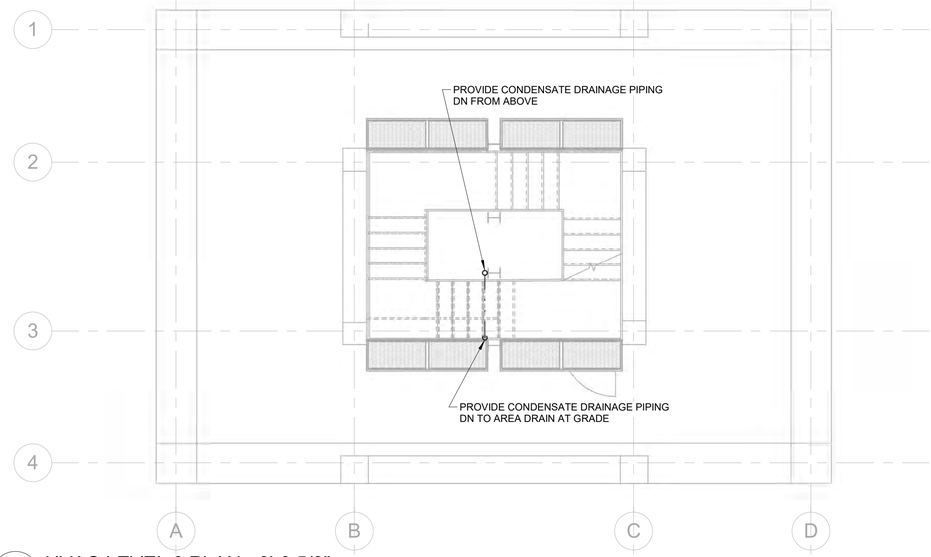
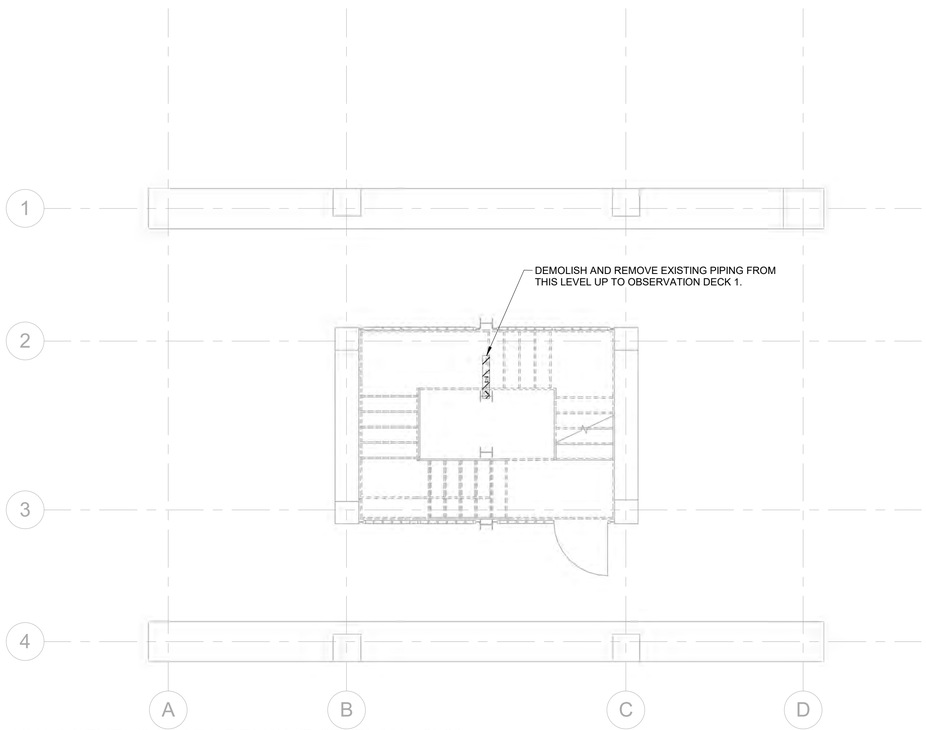
DESIGNED: JMS	SUB SHEET NO. M-0.01	TITLE OF HVAC SCHEDULES AND GENERAL NOTES	DRAWING NO. 850 140341
DRAWN: JMS		Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	PMIS/PKG 214371
TECH. DHE			SHEET 40 OF 61
DATE: 2/28/2018			



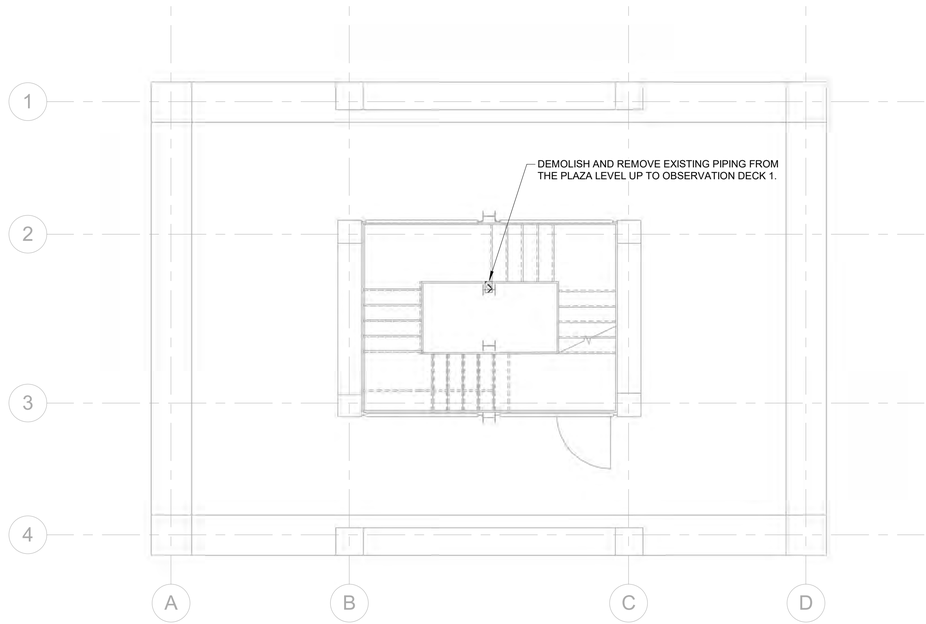
1 M-1.00 HVAC LEVEL 0 PLAZA PLAN - 0'-0"
SCALE: 1/4" = 1'-0"



2 M-1.00 HVAC LEVEL 3 PLAN - 8'-6 5/8"
SCALE: 1/4" = 1'-0"



3 M-1.00 HVAC LEVEL 0 PLAZA DEMOLITION PLAN - 0'-0"
SCALE: 1/4" = 1'-0"



4 M-1.00 HVAC LEVEL 3 DEMOLITION PLAN - 8'-6 5/8"
SCALE: 1/4" = 1'-0"

DESIGNED: JMS	SUB SHEET NO. M-1.00	TITLE OF HVAC LEVEL 0 PLAZA PLAN & HVAC LEVEL 3 PLAN	DRAWING NO. 850 140341
DRAWN: JMS		Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	PMIS/PKG 214371
TECH. DHE			SHEET 41 OF 61
DATE: 2/28/2018			

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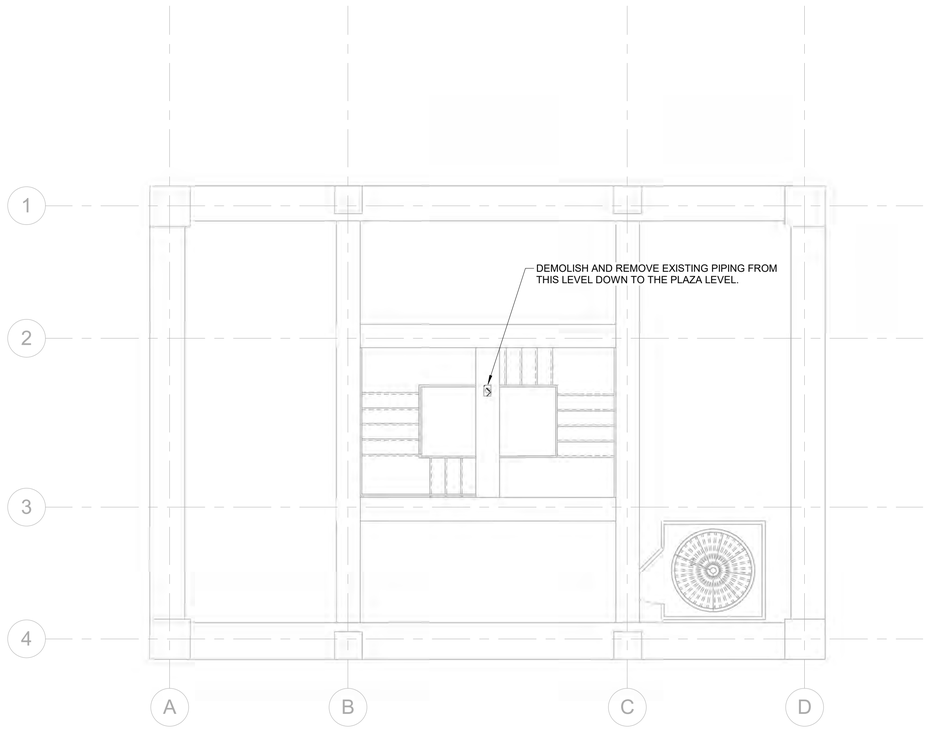
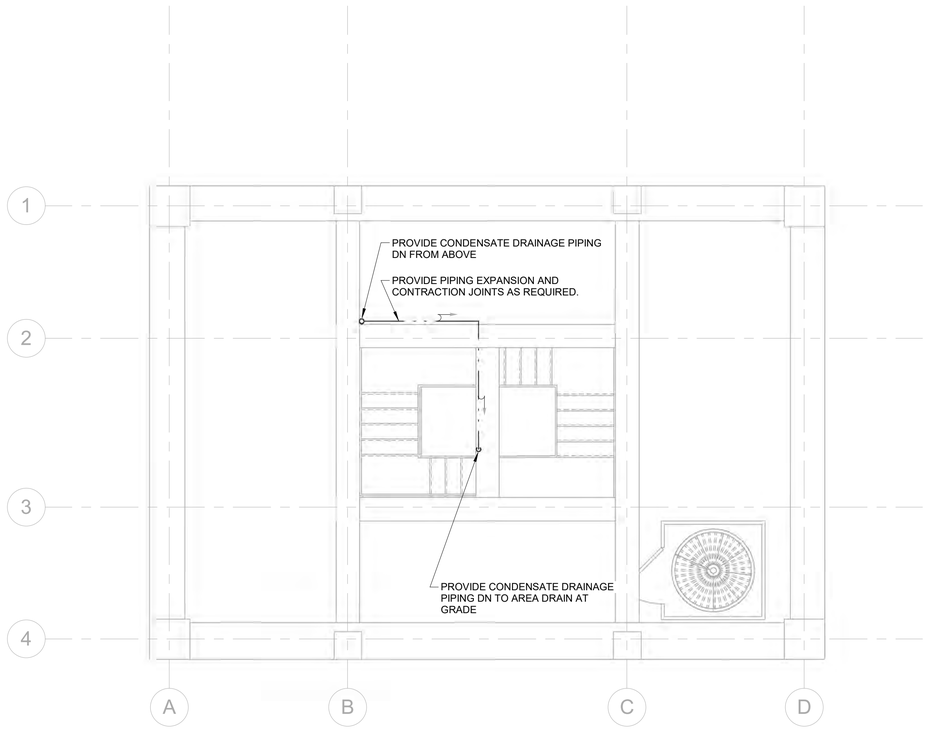


2 M-1.01 HVAC OBSERVATION DECK 1 DEMOLITION PLAN - 60'-0 1/8"
SCALE: 1/4" = 1'-0"



1 M-1.01 HVAC OBSERVATION DECK 1 PLAN - 60'-0 1/8"
SCALE: 1/4" = 1'-0"

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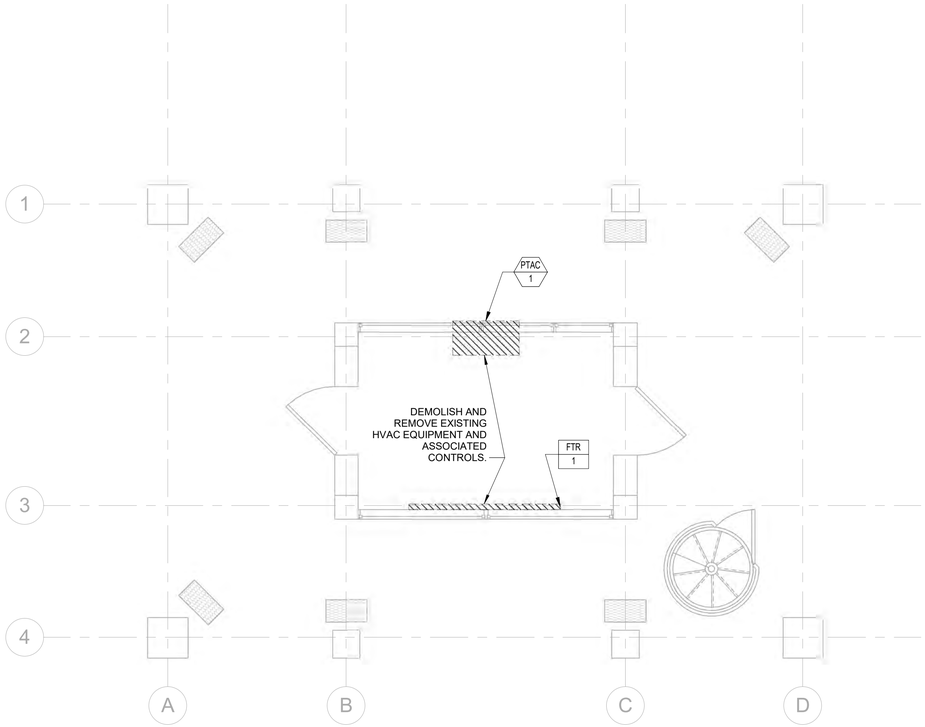
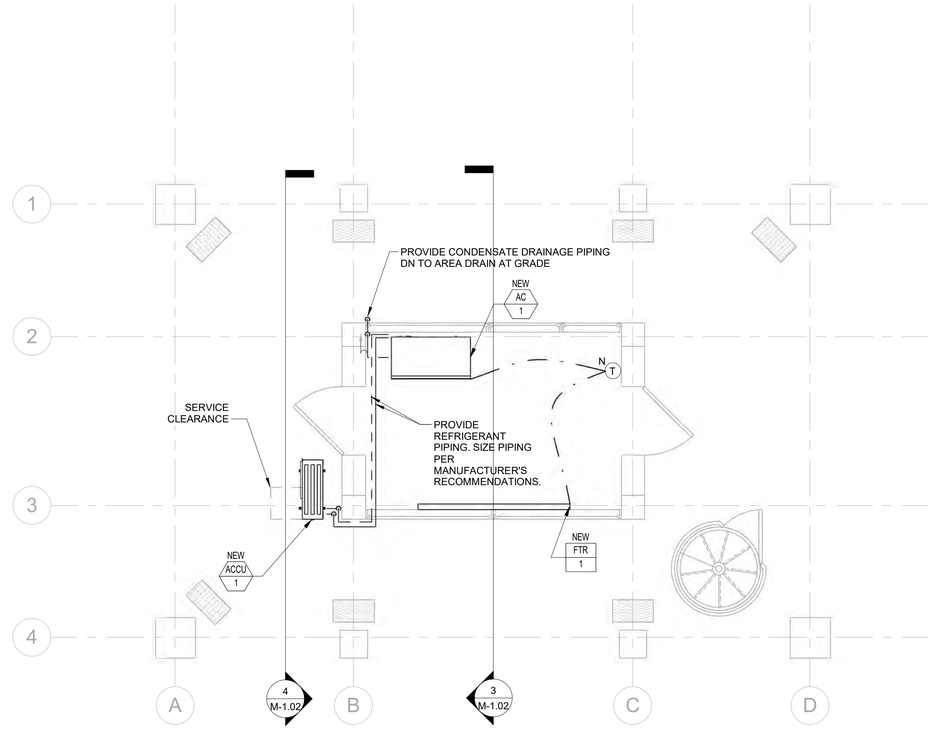
DESIGNED: JMS DRAWN: JMS TECH. DHE DATE: 2/28/2018	SUB SHEET NO. M-1.01	TITLE OF **HVAC OBSERVATION DECK 1 PLAN** Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 140341 PMIS/PKG 214371 SHEET 42 OF 61



2 M-1.02 HVAC OBSERVATION DECK 2 DEMOLITION PLAN - 84'-3"
SCALE: 1/4" = 1'-0"



1 M-1.02 HVAC OBSERVATION DECK 2 PLAN - 84'-3"
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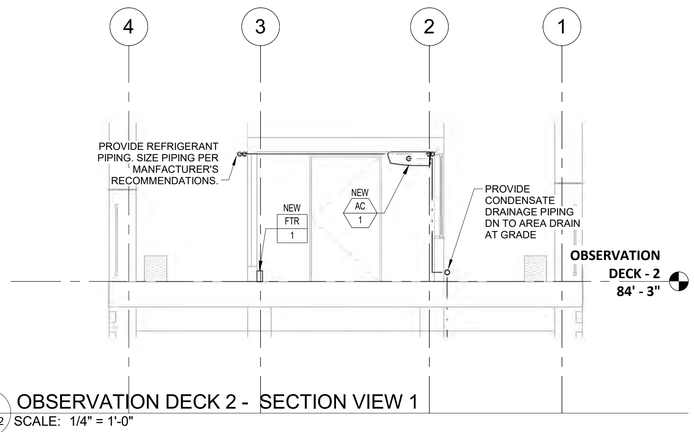

3 M-1.02 OBSERVATION DECK 2 - SECTION VIEW 1
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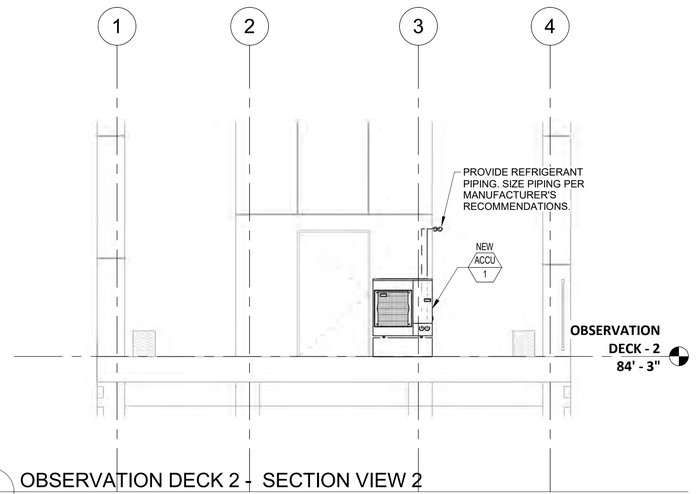

4 M-1.02 OBSERVATION DECK 2 - SECTION VIEW 2
SCALE: 1/4" = 1'-0"

DESIGNED: JMS DRAWN: JMS TECH. DHE DATE: 2/28/2018	SUB SHEET NO. M-1.02	TITLE OF **HVAC OBSERVATION DECK 2 PLAN** Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING NO. 850 140341 PMIS/PKG 214371 SHEET 43 OF 61

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ELECTRICAL RENOVATION NOTES

1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE INTEGRITY AND CONDITION OF THE EXISTING BRANCH CIRCUIT WIRING WHICH IS TO BE REUSED FOR NEW EQUIPMENT CIRCUITING ACCORDING TO THE NATIONAL ELECTRIC CODE. ALL DAMAGED WIRING OR WIRING FOUND TO BE NONFUNCTIONAL SHALL BE REPLACED.
2. EXISTING BRANCH CIRCUITS SHALL BE EXTENDED AND CONNECTED TO ALL EXISTING RELOCATED EQUIPMENT, AS REQUIRED FOR A COMPLETE WORKING SYSTEM.
3. RECONNECT ALL EXISTING CIRCUITING WHICH ORIGINATES OR PASSES THROUGH THE RENOVATED AREAS BUT SERVES OTHER AREAS NOT BEING RENOVATED. EXTEND THESE CIRCUITS AS MAY BE NECESSARY TO THE EXISTING PANELBOARDS. UTILIZE SPARE CIRCUIT BREAKERS.
4. DEMOLITION WORK SHALL BE DONE BY THE ELECTRICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL WORK CONCERNING EXISTING EQUIPMENT AND SERVICES REMAINING IN THE BUILDING.
5. THE ELECTRICAL CONTRACTOR SHALL RETURN ALL REMOVED EXISTING EQUIPMENT TO THE OWNER AT A LOCATION DESIGNATED BY THE OWNER.

LIGHT SOLID LINE DENOTES EXISTING EQUIPMENT TO REMAIN.

LIGHT DASHED LINE DENOTES FUTURE EQUIPMENT TO BE INSTALLED.

DARK SOLID LINE DENOTES NEW EQUIPMENT TO BE INSTALLED.

DARK DASHED LINE DENOTES EXISTING EQUIPMENT TO BE REMOVED.

X EXISTING EQUIPMENT TO BE REMOVED AND CIRCUIT PULLED BACK TO NEXT ACTIVE OUTLET/BACK TO PANEL.

XM EXISTING EQUIPMENT TO REMAIN.

XN EXISTING EQUIPMENT TO BE REMOVED AND NEW EQUIPMENT AS SPECIFIED INSTALLED ON EXISTING OUTLET, RECONNECT TO EXISTING CIRCUIT.

XE EXISTING DEVICE TO BE REMOVED, OUTLET BLANKED AND CIRCUIT EXTENDED TO NEW EQUIPMENT AS SHOWN.

XR EXISTING EQUIPMENT TO BE REMOVED AND RELOCATED.

XL NEW LOCATION OF RELOCATED EXISTING EQUIPMENT.

XF EXISTING TO REFEED FROM NEW SOURCE.

ELECTRICAL DEMOLITION NOTES

1. THE ELECTRICAL CONTRACTOR SHALL INSPECT THE SITE PRIOR TO SUBMITTING HIS BID AND SHALL INVESTIGATE ALL CONDITIONS UNDER WHICH THIS WORK WILL BE PERFORMED. THIS SHALL INCLUDE DETERMINATION OF EXACT LOCATIONS OF ITEMS INDICATED ON THE DRAWINGS AS EXISTING. SUCH EXISTING LOCATIONS ARE DIAGRAMMATIC AND SHALL NOT BE CONSTRUED AS EXACT ENOUGH TO USE FOR EQUIPMENT AND LABOR ESTIMATION PURPOSES. FAILURE TO INSPECT EXISTING CONDITIONS OR TO FULLY UNDERSTAND THE WORK REQUIRED SHALL NOT EXCUSE THE ELECTRICAL CONTRACTOR FROM HIS OBLIGATION TO SUPPLY AND INSTALL THE WORK IN ACCORDANCE WITH THE SPECIFICATION AND DRAWINGS AND UNDER ALL CONDITIONS AS THEY EXIST.
2. THE SCOPE OF WORK INCLUDES DISCONNECTION AND REMOVAL OF ALL EXISTING ELECTRICAL EQUIPMENT, CONDUITS, WIRING, FIXTURES, DEVICES, ETC. IN THE WORK AREA INDICATED UNLESS OTHERWISE NOTED.
3. USE CAUTION TO AVOID DAMAGE TO EXISTING UTILITY LINES AND SERVICES AND/OR HARM TO PERSONNEL ENGAGED IN WORKING IN ADJACENT AREAS THAT ARE TO REMAIN OCCUPIED.
4. IN AREAS WHERE EXISTING ELECTRICAL EQUIPMENT IS TO REMAIN AND IF EXISTING CIRCUIT AND SYSTEM WIRING IS PRESENTLY ROUTED OUTSIDE DESIGNATED AREAS WHERE EXISTING MATERIALS AND/OR EQUIPMENT ARE TO BE REMOVED. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL RACEWAYS, BOXES AND NEW WIRING AS REQUIRED TO MAINTAIN EXISTING CIRCUIT AND SYSTEM WIRING TO COMPONENTS WHICH ARE TO REMAIN.
5. EXISTING ABANDONED CONDUIT, OUTLETS AND BOXES MAY BE USED AT THE OPTION OF THE ELECTRICAL CONTRACTOR PROVIDING THAT THEY ARE COMPATIBLE FOR USE WITH THIS PROJECT DESIGN, SPECIFICATIONS AND MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND LOCAL GOVERNING AUTHORITIES.
6. EXISTING CONDUIT, WIRING, DEVICES AND OUTLET BOXES, UNLESS NOTED OTHERWISE, WHICH ARE CONCEALED IN EXISTING WALLS AND/OR CEILINGS WHICH ARE TO BE REMOVED SHALL BE DE-ENERGIZED AND REMOVED BY THE ELECTRICAL CONTRACTOR. THE ABOVE ITEMS, WHEN FOUND CONCEALED IN EXISTING WALLS AND CEILINGS WHICH ARE TO REMAIN, SHALL BE ABANDONED, WIRING REMOVED AND OUTLETS BLANKED BY THE ELECTRICAL CONTRACTOR.
7. EXISTING CONDUIT, WIRING, DEVICES AND OUTLET BOXES, UNLESS NOTED OTHERWISE, WHICH ARE SURFACE MOUNTED ON EXISTING WALLS AND/OR CEILINGS WHICH ARE BEING REMOVED SHALL BE DE-ENERGIZED BY THE ELECTRICAL CONTRACTOR AND REMOVED. THE ABOVE ITEMS WHEN FOUND SURFACE MOUNTED ON EXISTING WALLS AND CEILINGS WHICH ARE TO REMAIN SHALL BE DE-ENERGIZED BY THE ELECTRICAL CONTRACTOR AND REMOVED.
8. WHERE EXISTING DEVICE OUTLETS ARE INDICATED ON PLAN TO REMAIN, THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ON THAT DEVICE ALL NECESSARY OUTLET BOX EXTENSIONS OF THE PROPER TYPE AND DEPTH AS MAY BE REQUIRED TO ACCOMMODATE ANY NEW WALL FINISH, COVERING OR MATERIAL. THIS WORK SHALL ALSO INCLUDE THE REINSTALLATION AND RECONNECTION OF THE DEVICE AS MAY BE REQUIRED.
9. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE INTEGRITY AND CONDITION OF EXISTING FEEDERS AND BRANCH CIRCUITS WHICH ARE TO REMAIN IN SERVICE. ALL DAMAGED OR NONFUNCTIONAL WIRING SHALL BE REPLACED WITH NEW 98% CONDUCTIVITY, COPPER, SIZE TO MATCH EXISTING OR MINIMUM #12 AWG SIZE, THWN/ITHHN INSULATION, 600 VOLT RATED CONDUCTORS.
10. THE ELECTRICAL CONTRACTOR SHALL RETURN ALL REMOVED, EXISTING AND REUSABLE EQUIPMENT TO THE OWNER, ALL OTHER MATERIALS SHALL BE DISPOSED OF IN AN ACCEPTABLE MANNER AS DIRECTED IN THE FIELD BY THE GENERAL CONTRACTOR.
11. ALL EXISTING ELECTRICAL EQUIPMENT NOTED WITH A SUBSCRIPT "XM" SHALL BE PROPERLY PROTECTED AGAINST DAMAGE DURING THE PERIOD OF THIS RENOVATION.
12. REFER TO HVAC AND PLUMBING CONTRACT DRAWINGS AND SPECIFICATIONS FOR EXACT QUANTITIES AND LOCATIONS OF ALL MECHANICAL AND PLUMBING EQUIPMENT BEING ABANDONED OR REMOVED, WHICH WILL REQUIRE DE-ENERGIZATION BY THE ELECTRICAL CONTRACTOR.

ELECTRICAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ALUMINUM
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BRK	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CL	CENTERLINE
CONT	CONTACT
CU	COPPER
DS	DISCONNECT SWITCH
DWG	DRAWING
EC	ELECTRICAL CONTRACTOR
E, EM, EMERG	EMERGENCY IN ACCORDANCE WITH NEC 700
EMH	ELECTRIC MANHOLE
EMT	ELECTRIC METALLIC TUBING
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
FC	FLEXIBLE CONNECTION
F-DS	FUSED DISCONNECT SWITCH
FDR	FEEDER
GC	GENERAL CONTRACTOR
GEN	GENERATOR
G,GND	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HVAC	HEATING, VENTILATING & AIR CONDITIONING
IC	INTERRUPTING CAPACITY
INT	INTERRUPTING
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KVA	KILOVOLT-AMPERE
KW	KILOWATT
LTG	LIGHTING
MCB	MAIN CIRCUIT BREAKER
MC	METAL CLAD
MI	MINERAL-INSULATED
MISC	MISCELLANEOUS
MCC	MOTOR CONTROL CENTER
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTG	MOUNTING
N	NEUTRAL
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
#	NUMBER
NTS	NOT TO SCALE
P	POLES
PB	PUSH BUTTON
PH,Ø	PHASE
PL	PILOT LIGHT
PNL	PANEL
PLLBD	PANELBOARD
PVC	POLYVINYL CHLORIDE
RCPT	RECEPTACLE
SBE	SECONDARY BUS ENCLOSURE
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TS	THERMAL SWITCH
TYP	TYPICAL
VFD	VARIABLE FREQUENCY DRIVE
WP	WEATHER PROOF
XFMR	TRANSFORMER
XP	EXPLOSION-PROOF

ELECTRICAL LEGEND

LIGHTING FIXTURE SYMBOLS

FR 3 R 3 a a — STANDARD DESIGNATION FOR ALL LIGHTING FIXTURES. "FR", "R" INDICATES FIXTURE TYPE; "3" INDICATES CIRCUIT NUMBER, "a" INDICATES SWITCH CONTROL. "NL" INDICATES UNSWITCHED NIGHT LIGHTING CIRCUIT.

CEILING SURFACE, RECESSED OR PENDENT-MOUNTED LIGHTING FIXTURE.

WALL MOUNTED LIGHTING FIXTURE CONNECTED TO EMERGENCY BATTERY INVERTER SYSTEM.

CEILING MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY PACK.

EXIT LIGHTING FIXTURE CEILING AND WALL MOUNTED. ARROWS (CHEVRONS) AND FACES AS INDICATED ON DRAWINGS.

SMC 350 — EMERGENCY BATTERY INVERTER EQUAL TO MEYERS POWER PRODUCTS #LV-350-R-1-X-B.

SMC 550 — EMERGENCY BATTERY INVERTER EQUAL TO MEYERS POWER PRODUCTS #LV-550-R-1-X-B.

SWITCHING SYMBOLS

S — SINGLE-POLE SWITCH. MOUNTING HEIGHT 48" AFF.

S WP — WEATHERPROOF SWITCH. MOUNTING HEIGHT 48" AFF.

S M — MOTOR RATED SWITCH WITHOUT THERMAL DEVICE

S P T — THERMAL MOTOR SWITCH, "P" INDICATES PILOT LIGHT

SMC — LOW VOLTAGE SWITCH. MOUNTING HEIGHT 48" AFF.

S a LV — LOW VOLTAGE MOMENTARY CONTACT SWITCH. MOUNTING HEIGHT 48" AFF. "a" INDICATES ZONE NUMBER. E.C. SHALL COORDINATE DEVICE COMPATIBILITY WITH LIGHTING CONTROL PANEL.

OS — CEILING MOUNTED LOW-VOLTAGE OCCUPANCY SENSOR WITH POWER PACK FOR EACH UNIT OR AS REQUIRED. DEVICE SHALL BE EQUAL TO WATTSTOPPER #DT-300. REFER TO WIRING DETAIL ON E-0.02.

LCP — LIGHTING CONTROL PANEL. PANEL SHALL BE EQUAL TO WATTSTOPPER LMCP SERIES.

PC — LINE VOLTAGE PHOTO-ELECTRIC CELL COMPATIBLE WITH THE LIGHTING CONTROL PANEL. SURFACE OR WALL MOUNTED.

RECEPTACLES AND OUTLETS

DUPLEX CONVENIENCE RECEPTACLE. MOUNTING HEIGHT 18" AFF.

DOUBLE DUPLEX (QUAD) CONVENIENCE RECEPTACLE. MOUNTING HEIGHT 18" AFF.

GROUND FAULT INTERRUPTING RECEPTACLE. MOUNTING HEIGHT 18" AFF.

C — "C" INDICATES RECEPTACLE MOUNTED 6" ABOVE COUNTER OR 42" AFF.

WP — "WP" INDICATES RECEPTACLE PROVIDED WITH AN IN-USE, HEAVY DUTY, CAST ALUMINUM WEATHER-PROOF COVERPLATE. DEVICE IS TO BE "WR" TYPE.

J — JUNCTION BOX.

TELECOM RECEPTACLES AND OUTLETS

TELECOMMUNICATIONS OUTLET. MOUNTING HEIGHT 18" AFF. PROVIDE SINGLE-GANG OUTLET BOX WITH 3/4" EMPTY CONDUIT, WITH PULL STRING, RUN TO COMMUNICATIONS CONDUIT IN ROOM .

PANELBOARDS AND DISTRIBUTION SYMBOLS

LIGHTING, POWER, OR DISTRIBUTION PANEL.

PB — PULL BOX, SIZE AS INDICATED.

M M — METER.

W/W — WIREWAY, SIZE PER CODE REQUIREMENTS.

CM — CHECK METER EQUAL TO SQUARE-D PM8000 OR EQUAL, METER IS TO BE EPACT 2005 COMPLIANT. PROVIDE WIRING AS REQUIRED FOR NETWORK CONNECTION TO N.P.S COMMUNICATIONS SYSTEM, COORDINATE REQUIREMENTS WITH N.P.S. I.T.

MISCELLANEOUS

G — 3/8" x 3" x 24" COPPER MAIN GROUND BAR. PROVIDE #6 AWG TO PANEL GROUND BUS, BUILDING STEEL, ELECTROSTATIC TILE AND CABLE TRAY UNLESS NOTED OTHERWISE. REFER TO DETAIL ON DRAWING E-0.02.

XXX XXX — MECHANICAL EQUIPMENT TAG. REFER TO MECHANICAL SCHEDULE FOR ELECTRICAL INFORMATION.

BRANCH CIRCUIT AND FEEDER SYMBOLS

BRANCH CIRCUIT OR FEEDER CONCEALED IN CONSTRUCTION IN FINISHED AREAS, EXPOSED IN UNFINISHED AREAS.

BRANCH CIRCUIT OR FEEDER, CONCEALED IN OR UNDER FLOOR SLAB.

CONDUIT STUB WITH PULL CORD AND BUSHING.

BRANCH CIRCUIT-DIAGONAL LINES INDICATE NUMBER OF WIRES. NO DIAGONAL LINES INDICATES TWO WIRES. GROUND WIRE(S) NOT INDICATED. MINIMUM SIZE #12 AWG AND 1/2" CONDUIT UNLESS OTHERWISE NOTED.

4#1, 1 1/2"C. — INDICATES 4#1 AWG CONDUCTORS IN 1 1/2" CONDUIT.

L211-1,3 — HOME RUN TO PANELBOARD L211 CIRCUITS #1 AND #3.

DIRECT FLEXIBLE CONNECTION TO MOTOR OR EQUIPMENT.

MOTORS AND CONTROLS

5 — MOTOR-NUMERAL INDICATES HORSEPOWER.

30A — DISCONNECT SWITCH-UNFUSED TYPE, SIZE AS INDICATED (30 AMP, 3 POLE).

30A / 20A — DISCONNECT SWITCH-FUSED TYPE, SIZE AS INDICATED (30 AMP, 20 AMP FUSE, 3 POLE).

100A / 70A — ENCLOSED CIRCUIT BREAKER-SIZE AS INDICATED (100 AMP FRAME, 70 AMP TRIP, 3 POLE).

SITE SYMBOLS

UTILITY POLE.

UE — UNDERGROUND SYSTEM- "E"-POWER, "T"-TELEPHONE, "F"-FIRE ALARM, "TV"-CABLE TELEVISION.

GROUND ROD.

ELECTRICAL GENERAL NOTES

1. THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE TO DETERMINE ALL PRE-EXISTING CONDITIONS AND WORK NECESSARY PRIOR TO SUBMISSION OF BID PRICES.
2. THE ELECTRICAL CONTRACTOR SHALL FAMILIARIZE HIM/HERSELF WITH ALL CONTRACT DOCUMENTS, FOR ALL TRADES, MAKE ALL EQUIPMENT CONNECTIONS AND COORDINATE WITH OTHER TRADES.
3. DRAWINGS ARE DIAGRAMMATIC ONLY. EXACT LOCATIONS, MOUNTING HEIGHTS OF EQUIPMENT AND ROUTING OF RACEWAYS SHALL BE COORDINATED WITH THE EQUIPMENT REQUIREMENTS AND FIELD CONDITIONS.
4. THE ELECTRICAL CONTRACTORS' SCOPE OF WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL ELECTRICAL POWER AND CONTROL REQUIREMENTS INDICATED.
5. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL INCI-DENTAL ACCESSORIES NECESSARY TO MAKE THE ELECTRICAL WORK COMPLETE AND READY FOR OPERATION.
6. BRANCH CIRCUITS MAY BE INSTALLED IN THE FOLLOWING RACEWAYS:
   a. CONCEALED ABOVE HUNG CEILINGS AND IN WALLS SHALL BE IN CONDUIT OR METAL CLAD CABLE (MC) WITH FULL SIZE INSULATED GREEN GROUND CONDUCTORS WHERE ALLOWED BY LOCAL AUTHORITY HAVING JURISDICTION
   b. EXPOSED IN NON-FINISHED ROOMS (I.E. STORAGE ROOMS, ELECTRIC ROOMS, MECHANICAL ROOMS, ETC.): SHALL BE E.M.T. MINIMUM 3/4" C. UNLESS SUBJECT TO INJURY, THEN RIGID STEEL.
   c. FLEXIBLE METAL CONDUIT SHALL BE USED FOR ALL FINAL CONNECTIONS TO MOTORS AND VIBRATING EQUIPMENT.
7. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH OSHA, THE NATIONAL ELECTRICAL CODE AND LOCAL GOVERNING AUTHORITIES.
8. ALL ELECTRICAL RACEWAYS SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE. TRAY, J-HOOKS, TIE WIRES, OR SIMILAR SUPPORT MEANS TO STRUCTURE MAY BE USED FOR MC CABLE SUPPORT WHERE ALLOWED BY CODE AND LISTED FOR THAT PURPOSE.
9. WIRE AND CONDUIT SIZE INDICATED ON HOMERUNS SHALL BE CONTINUOUS THROUGHOUT THE CIRCUIT.
10. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE HVAC AND PLUMBING CONTRACTORS AND MANUFACTURERS SHOP DRAWINGS FOR THE EXACT LOCATIONS AND ROUGHING IN DIMENSIONS OF ALL EQUIPMENT AND SHALL MAKE ALL FINAL POWER CONNECTIONS AS REQUIRED. I.E. POWER, CONTROLS, INTERLOCKS, ETC.
11. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL REQUIRED STARTERS AND DISCONNECTS WHICH ARE NOT FURNISHED BY THE HVAC OR PLUMBING CONTRACTOR.
12. THE ELECTRICAL CONTRACTOR SHALL USE CAUTION TO AVOID DAMAGE TO EXISTING UTILITY LINES AND/OR HARM TO PERSONNEL ENGAGED IN WORKING IN THESE AREAS.
13. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE 98% CONDUCTIVITY, COPPER, MINIMUM #12 AWG SIZE, THWN/THHN WITH DUAL RATED 75/90°C INSULATION, 600 VOLTS RATED, UNLESS OTHERWISE NOTED. 120 VOLT 20 AMP BRANCH CIRCUITS OF MORE THAN 75 FEET AND 277 VOLT 20 AMP BRANCH CIRCUITS OF MORE THAN 150 FEET FROM CENTER OF LOAD TO PANEL SHALL BE #10 AWG. VOLTAGE DROP SHALL NOT EXCEED MAXIMUM LIMIT AS STATED IN APPLICABLE ENERGY CODE.
14. ALL FEEDER CONDUCTORS SHALL BE 98% CONDUCTIVITY, COPPER, AWG SIZE AS NOTED, XHHW INSULATION, 600 VOLTS RATED, UNLESS OTHERWISE NOTED. VOLTAGE DROP SHALL NOT EXCEED MAXIMUM LIMIT AS STATED IN APPLICABLE ENERGY CODE.
15. A GROUNDING CONDUCTOR SHALL BE INCLUDED IN EACH RACEWAY OR CABLE, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
16. ALL ELECTRICAL WORK SHALL BE CONCEALED WITHIN WALLS OR RUN ABOVE THE HUNG CEILING WHERE POSSIBLE.
17. BACK-TO-BACK RECEPTACLES, SWITCHES, TELEPHONE OUTLETS, ETC. WILL NOT BE ACCEPTABLE.
18. WIRING SHOWN ON DRAWINGS ONLY FOR SPECIFIC ROUTES OR SPECIAL CONDITIONS.
19. WIRING AND CONDUIT SHALL BE REQUIRED BETWEEN ALL OUTLETS INDICATED WITH CIRCUIT NUMBERS AND PANEL DESIGNATIONS.
20. ALL SWITCH CONTROLS SHALL BE PROVIDED WITH WIRING AND CONDUIT AS REQUIRED.
21. ALTHOUGH ALL BRANCH CIRCUIT WIRE AND CONDUIT IS NOT SHOWN, IT IS THE INTENT OF THESE DOCUMENTS THAT A COMPLETE BRANCH CIRCUIT WIRING SYSTEM BE INSTALLED.
22. ALL 120V SINGLE PHASE CIRCUITS SHALL HAVE DEDICATED NEUTRALS. NO SHARED NEUTRALS SHALL BE ALLOWED EXCEPT FOR FURNITURE FEEDS.
23. WHERE SINGLE POLE BREAKERS ARE SPECIFIED, OR REUSED, TO PROTECT MULTIWIRE BRANCH CIRCUITS SERVING SINGLE PHASE LOADS, PROVIDE IDENTIFIED HANDLE TIES PER NEC 240.15(B)(1).
24. MOUNTING HEIGHTS FOR ELECTRICAL EQUIPMENT UNLESS NOTED OR DETAILED OTHERWISE ON THE ELECTRICAL DRAWINGS OR ARCHITECTURAL DRAWINGS. NOTES OR DETAILS ON THE ARCHITECTURAL DRAWINGS PERTAINING TO MOUNTING HEIGHTS OR LOCATIONS OF ELECTRICAL EQUIPMENT SHALL SUPERSEDE THOSE NOTED OR DETAILED ON THE ELECTRICAL DRAWINGS. IF THE MOUNTING HEIGHT OF ANY ELECTRICAL COMPONENT IS QUESTIONABLE, OBTAIN A CLARIFICATION FROM THE ARCHITECT BEFORE INSTALLATION. ALL MOUNTING HEIGHTS SHALL COMPLY WITH THE FEDERAL ADA (AMERICANS WITH DISABILITIES ACT) AND THE LOCAL JURISDICTION: ARCHITECTURAL BARRIERS BOARD FOR (BUILDINGS, FACILITIES, ETC. FOR THE VISUALLY AND PHYSICALLY DISABLED).
25. REFLECTED CEILING PLANS FOR ANY AND ALL AREAS PREPARED BY THE ARCHITECT SHOWING THE LOCATION OF LIGHTING FIXTURES SHALL TAKE PRECEDENCE OVER THE LOCATIONS OF SAME SHOWN ON THE LIGHTING PLANS OF THIS CONTRACT SET OF ELECTRICAL DRAWINGS. INSTALL THE LIGHTING FIXTURES IN ANY GIVEN AREA TO AGREE WITH THE ARCHITECT'S REFLECTED CEILING PLANS. WHERE QUANTITIES OF LIGHT FIXTURES SHOWN ON THE ARCHITECTURAL DRAWINGS DEVIATE FROM THOSE SHOWN ON ELECTRICAL DRAWINGS, THE CONTRACTOR SHALL NOTIFY ARCHITECT.

ELECTRICAL LIGHTING FIXTURE NOTES

1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LIGHTING FIXTURES COMPLETE WITH MOUNTING ACCESSORIES TO MEET JOB REQUIREMENTS.
2. THE ELECTRICAL CONTRACTOR SHALL VERIFY FIXTURE MOUNTING AND LOCATION AGAINST ARCHITECTURAL REFLECTED CEILING PLANS, ELEVATIONS AND DETAIL DRAWINGS. EXACT LOCATION OF ALL FIXTURES SHALL BE CONFIRMED WITH THE ARCHITECT PRIOR TO ROUGHING IN.
3. SERIES FIXTURES SHALL SATISFY LENGTHS AS SHOWN ON THE DRAWINGS.
4. FIXTURE LETTERS SHOWN ONCE ON A CONTINUOUS ROW OF FIXTURES SHALL BE TYPICAL FOR THAT ROW UNLESS OTHERWISE NOTED.
5. ALL FIXTURES SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE, INDEPENDENT OF HUNG CEILINGS.
6. MANUFACTURERS CATALOG NUMBERS ARE SHOWN FOR REFERENCE PURPOSES ONLY.THEY ARE MEANT TO PROVIDE A GENERAL DESCRIPTION OF THE DESIGN AND QUALITY OF FIXTURES REQUIRED. EQUIVALENT PRODUCTS, BY OTHER MANUFACTURERS, WILL BE CONSIDERED.
7. ALL INCANDESCENT LAMPS SHALL BE RATED 130 VOLTS UNLESS OTHERWISE SPECIFIED.
8. ALL FLUORESCENT LAMPS SHALL BE LOW MERCURY ENERGY SAVING TYPE.
9. ALL FLUORESCENT FIXTURES SHALL HAVE NEMA PREMIUM ENERGY SAVING ELECTRONIC BALLASTS- U.L. APPROVED AS A COMBINATION WITH ENERGY SAVING LAMPS SUPPLIED.
10. REFER TO LIGHTING FIXTURE SCHEDULE OR PROJECT ELECTRICAL SPECIFICATIONS FOR FIXTURE DESIGNATIONS, SPECIFICATIONS, VOLTAGE AND LAMP REQUIREMENTS.
11. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING COMPATIBILITY BETWEEN ALL FLUORESCENT DIMMING BALLASTS, LED DRIVERS, AND DIMMING SYSTEMS/SWITCHES INCLUDED IN THE PROJECT SCOPE. THE LIGHTING SUBMITTAL PACKAGE SHALL INCLUDE ALL STANDALONE DIMMING SWITCH AND/OR CENTRAL DIMMING SYSTEM PRODUCT DATA AND A WRITTEN STATEMENT THAT ALL COMPONENTS HAVE BEEN CERTIFIED AS COMPATIBLE BY THE MANUFACTURERS OF THE INTERCONNECTED COMPONENTS.
12. WHERE PROVIDED, EMERGENCEY BALLASTS SHALL BE HIGH LUMEN, SPECIFICATION GRADE.

DESIGNED: DMK CADD: WPC TECH. BDS DATE: 02/28/2018	SUB SHEET NO. E-0.01	TITLE OF ELECTRICAL LEGEND & GENERAL NOTES Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING 850 140341 PMIS/PKG 214371 SHEET 44 OF 61

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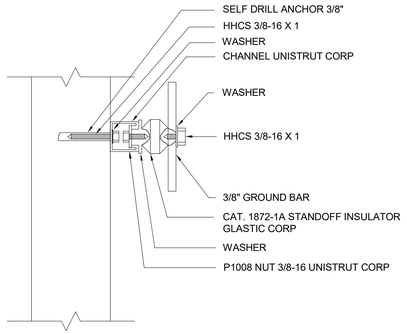

MOUNTING METHOD FOR GROUND BAR

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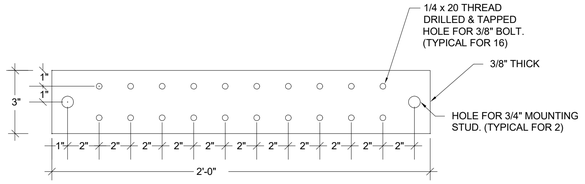
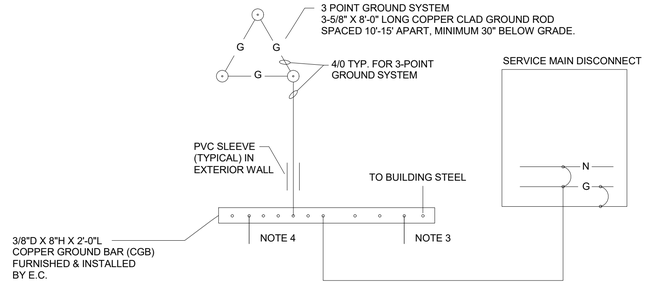


COPPER GROUND BAR

SCALE: NOT TO SCALE

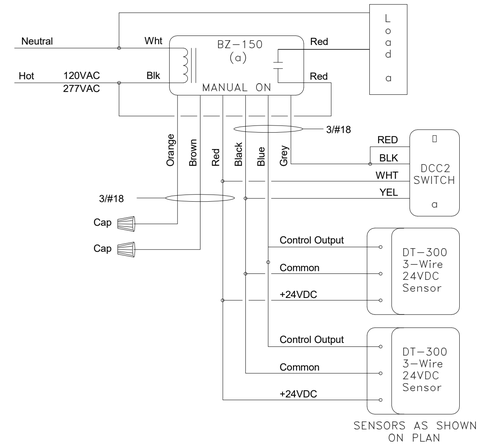
GROUND BAR MOUNTING DETAILS — SCALE: NOT TO SCALE — 1



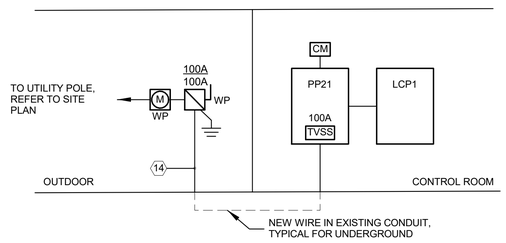
NOTES:

1. ALL WIRE SHALL BE BARE #8 COPPER, UNLESS NOTED OTHERWISE.
2. ALL CONNECTIONS BELOW GRADE SHALL BE CADWELD.
3. GROUNDING FOR TELEPHONE SYSTEM, COORDINATE CONNECTION AND REQUIREMENTS WITH TELEPHONE UTILITY COMPANY AND N.P.S. I.T.
4. PROVIDE CONNECTIONS AS REQUIRED FOR LIGHTNING PROTECTION SYSTEM. REFER TO SPECIFICATION SYSTEM FOR REQUIREMENTS.

GROUNDING DIAGRAM — SCALE: NOT TO SCALE — 2

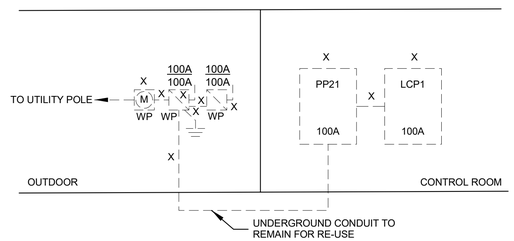


CEILING MOUNTED VACANCY SENSOR W/ MANUAL OVERRIDE WIRING DIAGRAM — SCALE: NOT TO SCALE — 3



ELECTRICAL NEW WORK ONE-LINE RISER DIAGRAM

N.T.S.



ELECTRICAL DEMOLITION ONE-LINE RISER DIAGRAM

N.T.S.

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DESIGNED: DMK	SUB SHEET NO. E-0.02	TITLE OF ELECTRICAL DETAILS & ONE-LINE Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING 850 140341
DRAWN: WPC			PMIS/PKG 214371
TECH. BDS			SHEET 45 OF 61
DATE: 02/28/2018			

LIGHTING CONTROL PANEL SCHEDULE: LCP1

ZONE #	RELAY #	DESCRIPTION	CIRCUIT
a	1	LOWER STAIR & OBSERVATION DECK #1 LIGHTS	PP21-15
b	2	UPPER STAIR & OBSERVATION DECK #2 LIGHTS	PP21-14
c	3	MONUMENT LIGHTS	PP21-17
c	4	MONUMENT LIGHTS	PP21-18
c	5	MONUMENT LIGHTS	PP21-19
c	6	MONUMENT LIGHTS	PP21-20
c	7	MONUMENT LIGHTS	PP21-21
c	8	MONUMENT LIGHTS	PP21-22
c	9	MONUMENT LIGHTS	PP21-23
c	10	MONUMENT LIGHTS	PP21-24
c	11	MONUMENT LIGHTS	PP21-25
c	12	MONUMENT LIGHTS	PP21-26
c	13	MONUMENT LIGHTS	PP21-27
c	14	MONUMENT LIGHTS	PP21-28
c	15	MONUMENT LIGHTS	PP21-29
c	16	MONUMENT LIGHTS	PP21-30
c	17	MONUMENT LIGHTS	PP21-31
c	18	MONUMENT LIGHTS	PP21-32
	19	SPARE	
	20	SPARE	
	21	SPARE	
	22	SPARE	
	23	SPARE	
	24	SPARE	

LCP SCHEDULE NOTES:
1. PROVIDE WITH EXTERIOR PHOTOCELL. INSTALL PHOTOCELL AT LOCATION AS RECOMMENDED BY THE MANUFACTURER FOR PROPER SYSTEM OPERATION.
2. PROVIDE PANEL WITH COMMUNICATIONS FOR REMOTE NETWORK MONITORING, COORDINATE WITH N.P.S. I.T.

MECHANICAL EQUIPMENT SCHEDULE

EQUIP. TAG	EQUIPMENT	CHARACTERISTICS	VOLTS	PH.	PANEL	CKT. BRK.	FEEDER	CONNECTION							REMARKS
								S	⊠	VFD	└□	└◪	∿•	WP	
AC 1	AIR CONDITIONING UNIT	95 WATTS	208	1	(PP21-1,3)	-	3#12, 1#12G., 3/4"C.				X		X		FED VIA ACCU-1, BELOW
ACCU 1	AIR COOLED CONDENSING UNIT	48 WATTS	208	1	PP21-1,3	25A-2P	2#10, 1#10G., 3/4"C.				X		X	X	
FTR 1	FIN TUBE RADIATION	4KW	208	1	PP21-2,4	20A-2P	2#10, 1#10G., 3/4"C.				X		X		

MECHANICAL EQUIPMENT SCHEDULE NOTES:
1. STARTERS (FVNR, VFD, RVNR, ETC.) SHALL BE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTORS AND WIRED BY ELECTRICAL CONTRACTOR. FOR EXACT LOCATIONS REFER TO MECHANICAL DRAWINGS. ALL DISCONNECTS PROVIDED BY E.C.
2. E.C. SHALL COORDINATE FUSE SIZE AND OVERCURRENT PROTECTION FOR ALL MECHANICAL EQUIPMENT W/MANUFACTURER'S RECOMMENDATION.

FEEDER SIZE SCHEDULE (COPPER CONDUCTORS)

FEEDER SYMBOL	CONDUCTORS (3 PHASE, 3 WIRE) WITH GROUND	CONDUIT SIZE	CONDUCTORS (3 PHASE, 4 WIRE) WITH GROUND	CONDUIT SIZE	NOMINAL AMPERE RATING
⟨13⟩	3#3/0 & 1#6G.	2"			200
⟨14⟩			4#3/0 & 1#6G.	2"	

LIGHTING FIXTURE SCHEDULE

TYPE	MTG	DESCRIPTION	MANUF.	CATALOG NO.	LAMPS		VOLT	REMARKS
					NUM.	TYPE		
A	SURFACE/ WALL	EXTERIOR LED WALL SCONCE	ILP	WPSP-30WLED-UNIV-4000K	1	LED 28W	120	
B	SURFACE	1X4 SURFACE MOUNTED LED FIXTURE	LITHONIA	STL4-40L-EZ1-LP835	1	LED 35W	120	
BE	SURFACE	1X4 SURFACE MOUNTED LED FIXTURE	LITHONIA	STL4-40L-EZ1-LP835-EL7L	1	LED 35W	120	PROVIDE 700 LUMEN EMERGENCY BATTERY BALLAST
⊗ |	UNIVERSAL	THERMOPLASTIC LED EXIT LIGHT FIXTURE, WHITE WITH RED LETTERS	LITHONIA	LQM-S-W-3-R-120/277-ELN-SD	-	LED	120	PROVIDE WITH NUMBER OF FACES AND CHEVRONS AS INDICATED ON PLANS.
⊗ | WP	UNIVERSAL	THERMOPLASTIC LED EXIT LIGHT FIXTURE	LITHONIA	LV-S-W-*-R-120/277-ELN-UM-CW-SD	-	LED	120	PROVIDE WITH NUMBER OF FACES AND CHEVRONS AS INDICATED ON PLANS.

LIGHTING FIXTURE SCHEDULE NOTES:
1. FINISHES TBD BY ARCHITECT.
2. COORDINATE ALL CEILING TYPES AND REQUIRED MOUNTING HARDWARE AND VERIFY RECESSED DEPTHS AND MOUNTING HEIGHTS WITH ARCHITECT. FIXTURES ARE TO BE FULLY COMPATIBLE WITH CEILING TYPE.

PANELBOARD: PP21

VOLTS: 120/208 PHASE: 3 WIRE: 4 MOUNTING: S AIC: 10K

MAINS: 125A MLO/MAIN BREAKER: 100A MCB 200% NEUTRALS: NO ISOLATED GROUND: NO FEED THRU LUGS: NO

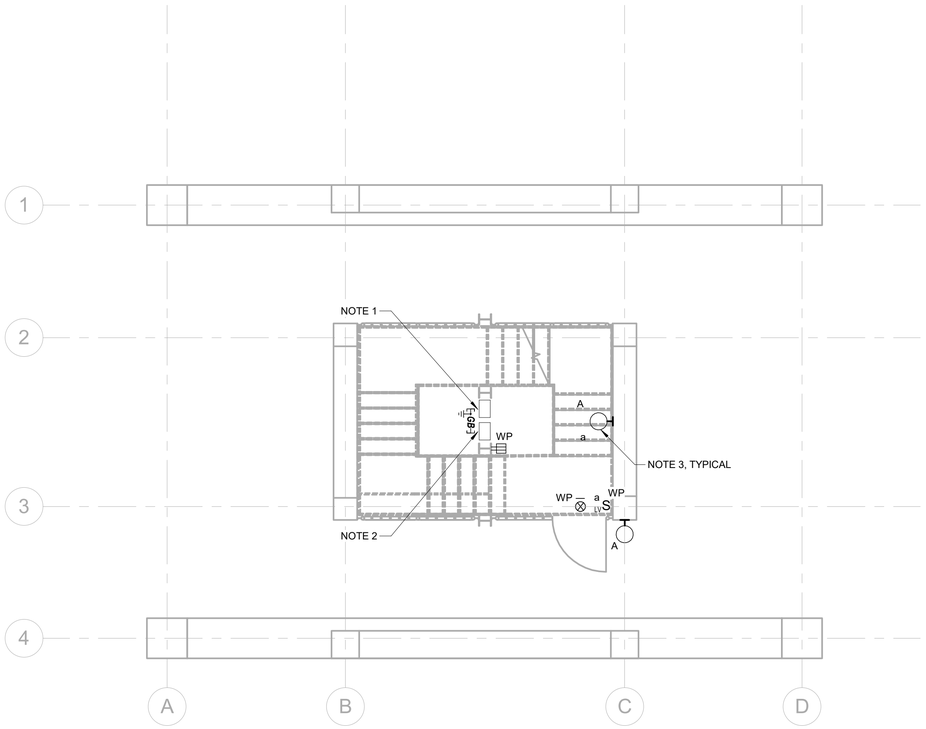
POLE	CIRCUIT DESCRIPTION	CIRCUIT BREAKER	LOAD - KVA - LTG	RCPT	HP	MISC	POLE	CIRCUIT DESCRIPTION	CIRCUIT BREAKER	LOAD - KVA - LTG	RCPT	HP	MISC
1	ACCU-1/AC-1	25A-2P				3.2	2	FTR-1	25A-2P				4.0
3	-	-				-	4	-	-				-
5	BELL CONTROLS	20A-2P				3.3	6	BELL CONTROLS	20A-2P				3.3
7	-	-				-	8	-	-				-
9	CARILLONEUR RM RECEPTS.	20A-1P		0.7			10	TEMP MONITOR RECEPT.	20A-1P		0.2		
11	EXTERIOR RECEPTACLES	20A-1P		0.7			12	EXTERIOR RECEPTACLES	20A-1P		0.7		
13	CARILLONEUR RM LIGHTS	20A-1P		0.7			14	UPPER STAIR LIGHTS	20A-1P		0.3		
15	LOWER STAIR LIGHTS	20A-1P		0.5			16	MONUMENT LIGHTS	20A-1P		-		
17	MONUMENT LIGHTS	20A-1P		-			18	MONUMENT LIGHTS	20A-1P		-		
19	MONUMENT LIGHTS	20A-1P		-			20	MONUMENT LIGHTS	20A-1P		-		
21	MONUMENT LIGHTS	20A-1P		-			24	MONUMENT LIGHTS	20A-1P		-		
23	MONUMENT LIGHTS	20A-1P		-			24	MONUMENT LIGHTS	20A-1P		-		
25	MONUMENT LIGHTS	20A-1P		-			26	MONUMENT LIGHTS	20A-1P		-		
27	MONUMENT LIGHTS	20A-1P		-			28	MONUMENT LIGHTS	20A-1P		-		
29	MONUMENT LIGHTS	20A-1P		-			30	MONUMENT LIGHTS	20A-1P		-		
31	MONUMENT LIGHTS	20A-1P		-			32	SPARE	20A-1P				
33	SPARE	20A-1P					34	SPARE	20A-1P				
35	SPARE	20A-1P					36	SPARE	20A-1P				
37	CHECK METER	20A-3P		-			38	SPARE	20A-1P				
39	-	-					40	SPARE	20A-1P				
41	-	-					42	SPARE	20A-1P				
	SUBTOTAL CONN.			2.6		3.3		SUBTOTAL CONN.			1.2		7.3
						5.9							8.5

HIGHEST UTILITY DEMAND LOAD OF 6.41 KW X 1.25 = 8.0 KW, ADDED TO TOTAL.

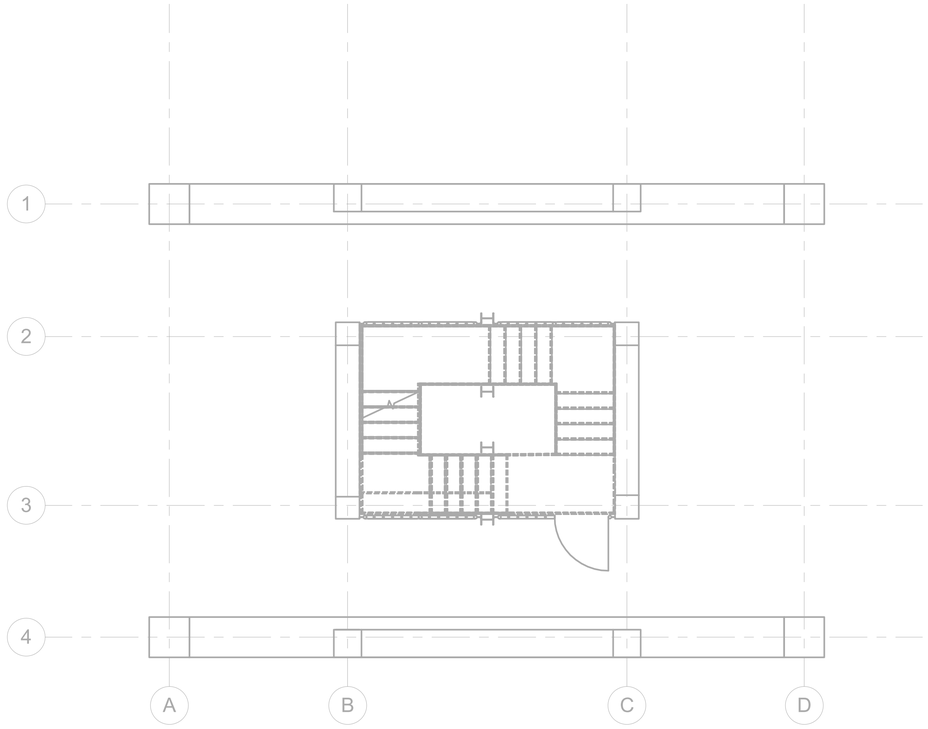
TOTAL KVA = 22.4 DIVIDED BY: 0.36 AMPS: 62.2 X 1.25 = 77.8 A

PANEL SCHEDULE NOTES:
1. PROVIDE PANEL WITH BUILT IN TVSS.
2. MAIN BREAKER TO BE INSTALLED ON THE BOTTOM OF THE PANEL.

DESIGNED: Designer	SUB SHEET NO. E-0.03	TITLE OF ELECTRICAL SCHEDULES	DRAWING 850 140341
CADD Author			PMIS/PKG 214371
TECH. Checker		Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	SHEET 46 OF 61
DATE: 02/28/2018			



1 E-1.00 LEVEL 0 PLAZA PLAN - 0'-0"
SCALE: 1/4" = 1'-0"



2 E-1.00 ELECTRICAL LIGHTING LEVEL 1 PLAN - 2'-6"
SCALE: 1/4" = 1'-0"

SHEET NOTES

1. PROVIDE NEW NEMA 3R PULLBOX FOR COMMUNICATIONS WIRING. MATCH EXISTING SIZE. INSTALL 12" ABOVE GRADE, MIN. CONDTUI FOR COMMUNICATIONS WIRING IS TO REMAIN.
2. PROVIDE NEW NEMA 3R PULLBOX FOR POWER FEEDER. MATCH EXISTING SIZE. INSTALL 12" ABOVE GRADE,MIN.
3. WIRE FIXTURES ON SWITCH "a" VIA 550W INVERTER, TYPICAL.

DESIGNED: DMK DRAWN: DMK TECH. BDS DATE: 02/28/2018	SUB SHEET NO. E-1.00	TITLE OF ELECTRICAL LIGHTING AND POWER LEVEL 0 & 1 Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING 850 140341 PMIS/PKG 214371 SHEET 47 OF 61

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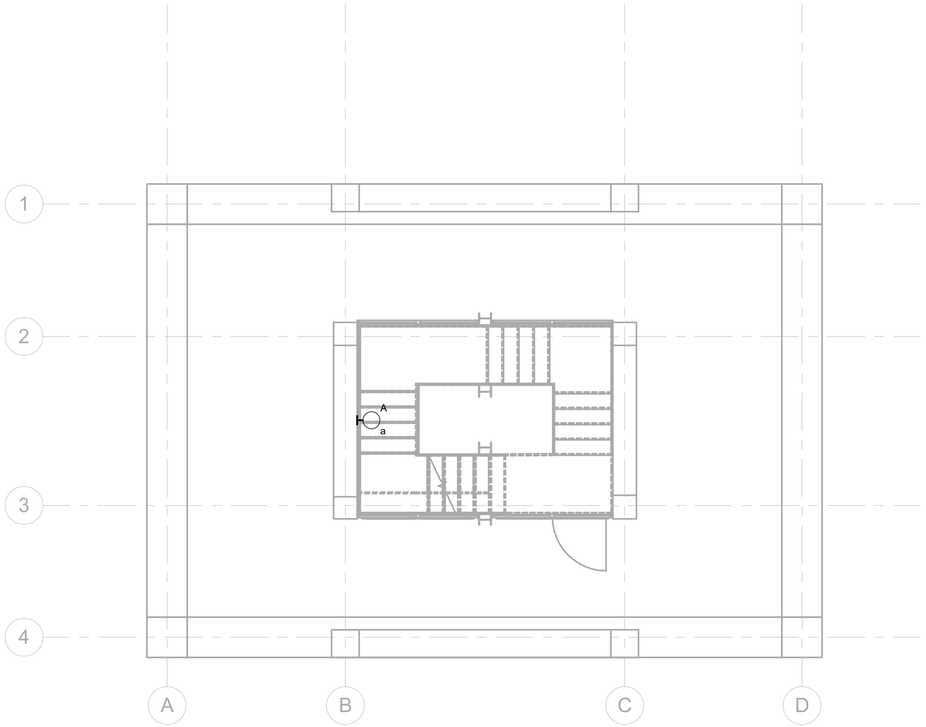
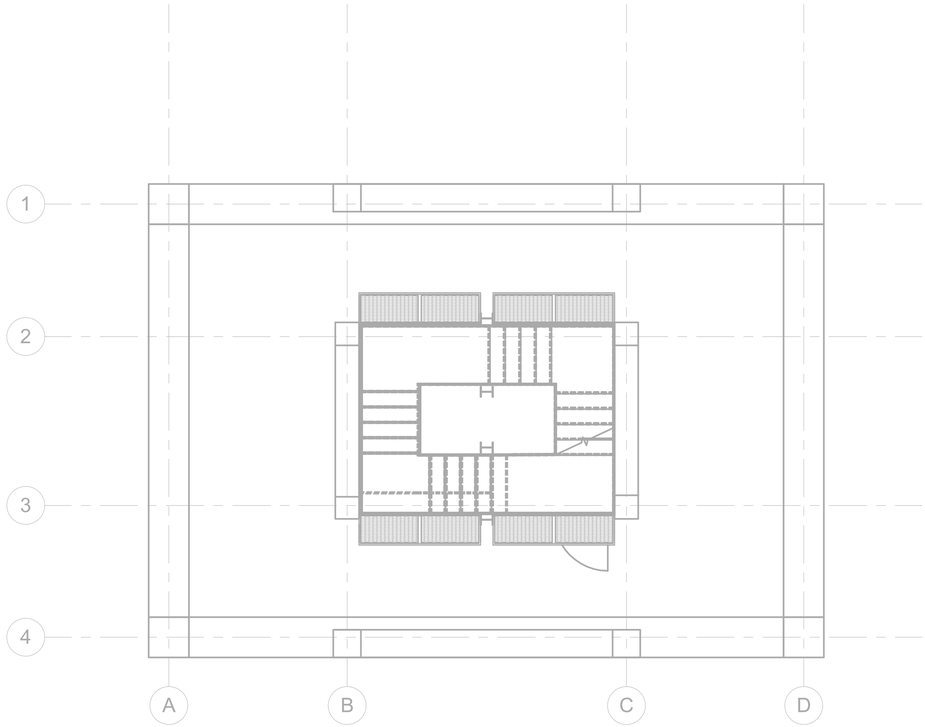


1 E-1.01 ELECTRICAL LIGHTING LEVEL 2 PLAN - 5'-6 3/8"
SCALE: 1/4" = 1'-0"



2 E-1.01 ELECTRICAL LIGHTING LEVEL 3 PLAN - 8'-6 5/8"
SCALE: 1/4" = 1'-0"

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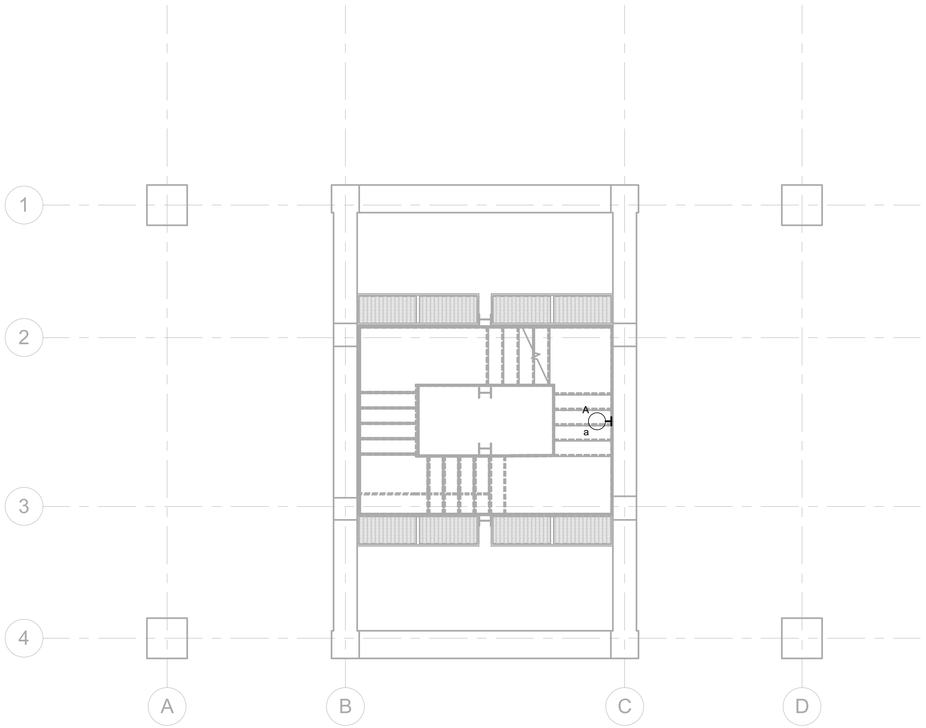
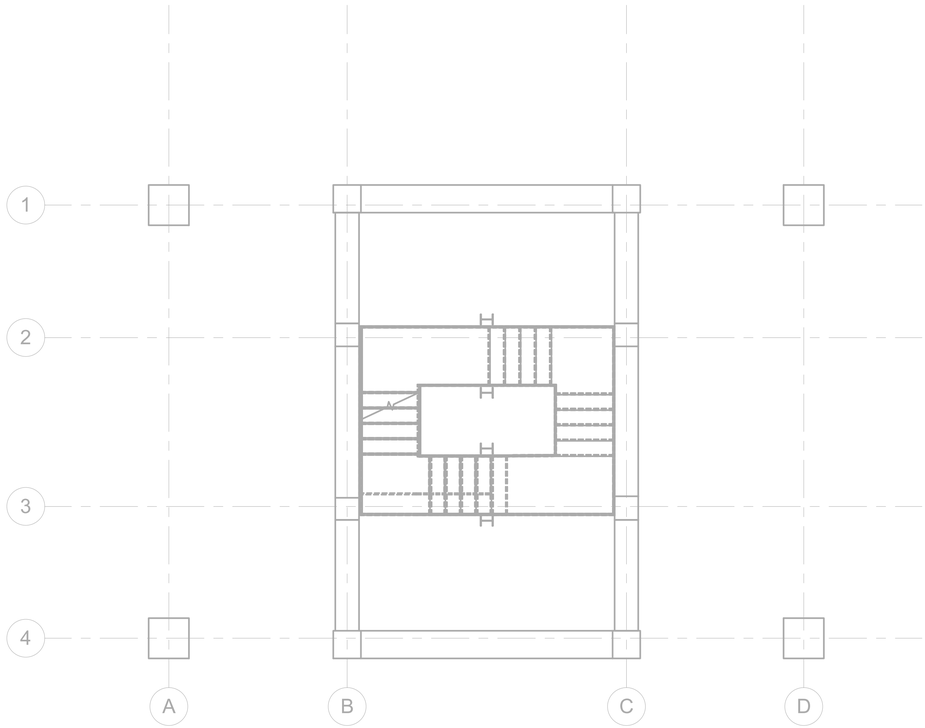
DESIGNED: DMK DADP WPC TECH. BDS DATE: 02/28/2018	SUB SHEET NO. E-1.01	TITLE OF **ELECTRICAL LIGHTING LEVEL 2 & 3** Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING 850 140341 PMIS/PKG 214371 SHEET 48 OF 61



1 E-1.02 ELECTRICAL LIGHTING LEVEL 4 PLAN - 11'-7"
SCALE: 1/4" = 1'-0"



2 E-1.02 ELECTRICAL LIGHTING LEVEL 5 PLAN - 14'-7 1/4"
SCALE: 1/4" = 1'-0"

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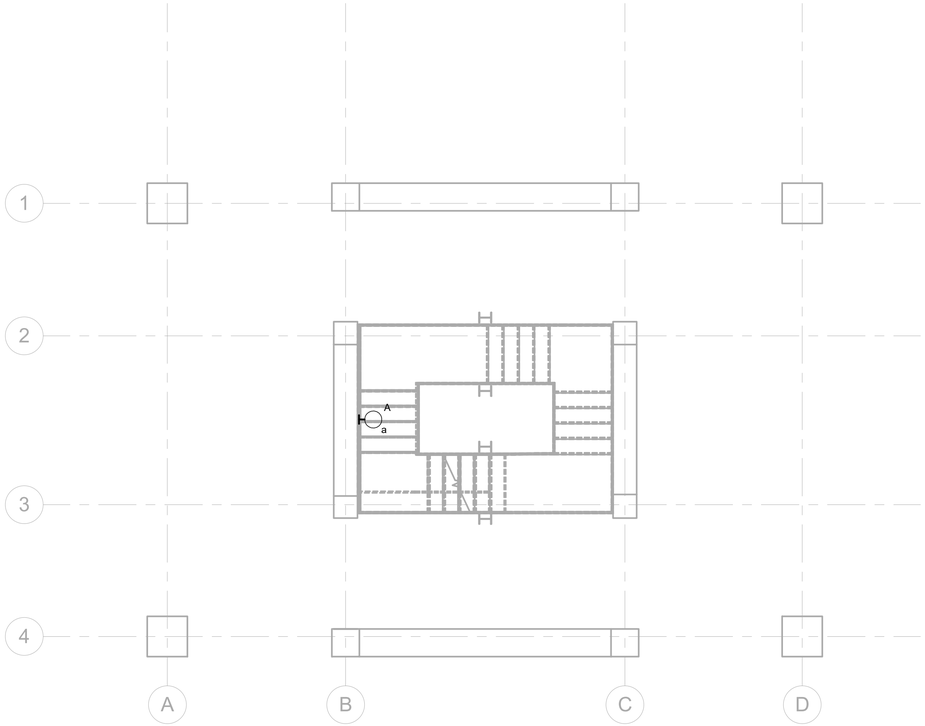
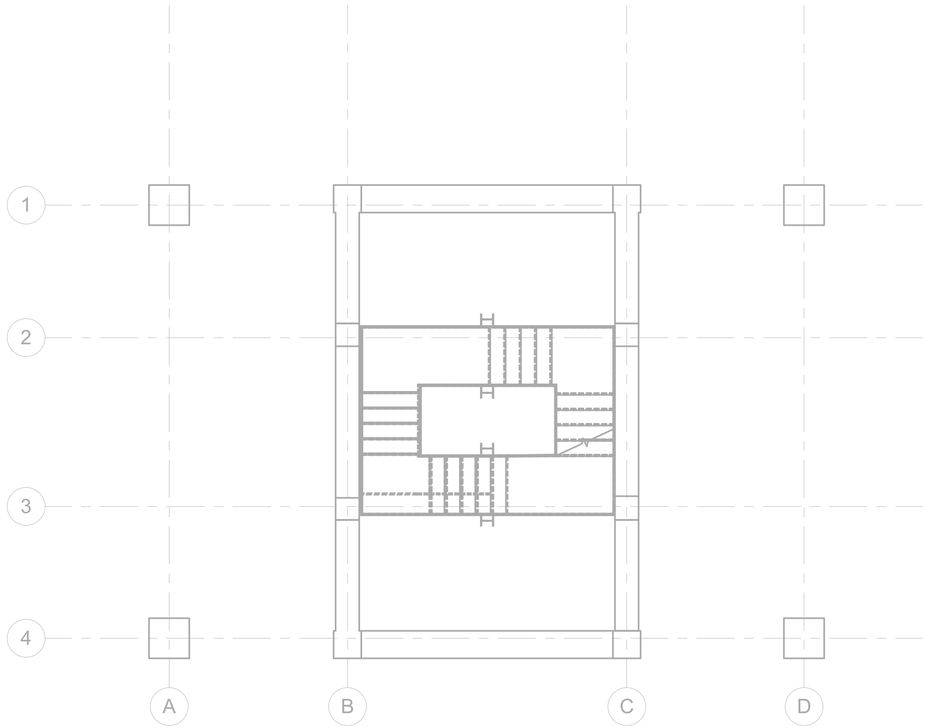
DESIGNED: DMK CADD: WPC TECH. BDS DATE: 02/28/2018	SUB SHEET NO. E-1.02	TITLE OF **ELECTRICAL LIGHTING LEVEL 4 & 5** Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING 850 140341 PMIS/PKG 214371 SHEET 49 OF 61



1 E-1.03 ELECTRICAL LIGHTING LEVEL 6 PLAN - 17'-7 5/8"
SCALE: 1/4" = 1'-0"



2 E-1.03 ELECTRICAL LIGHITNG LEVEL 7 PLAN - 20'-7 7/8"
SCALE: 1/4" = 1'-0"

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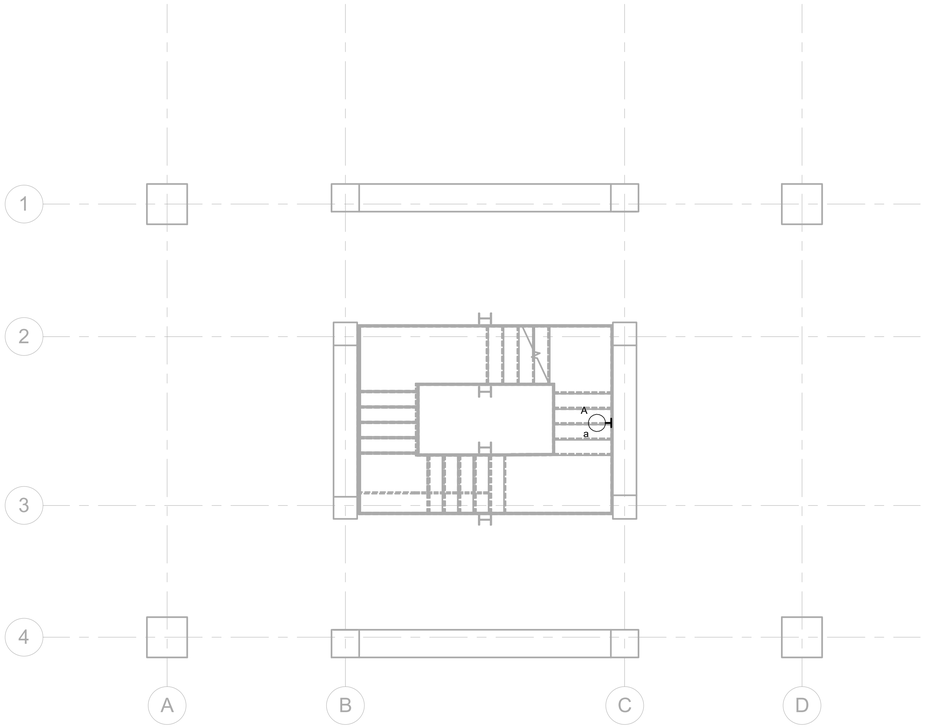
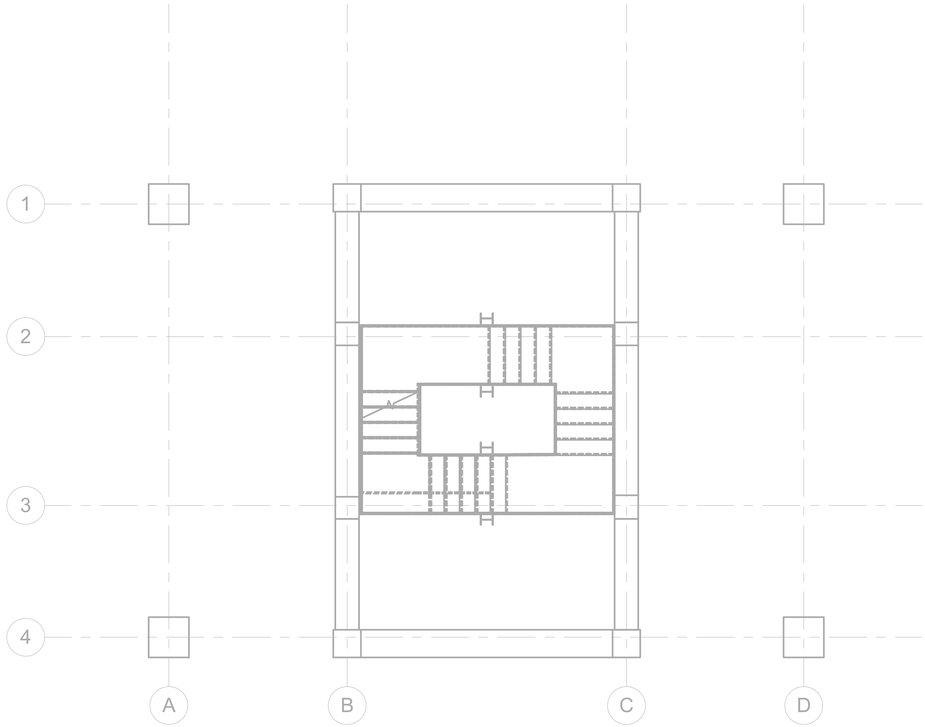
DESIGNED: DMK	SUB SHEET NO. E-1.03	TITLE OF ELECTRICAL LIGHTING LEVEL 6 & 7	DRAWING 850 140341
DRAWN: DMK		Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	PMIS/PKG 214371
TECH. BDS			SHEET 50 OF 61
DATE: 02/28/2018			



1 E-1.04 ELECTRICAL LIGHTING LEVEL 8 PLAN - 23'- 8 1/4"
SCALE: 1/4" = 1'-0"



2 E-1.04 ELECTRICAL LIGHTING LEVEL 9 PLAN - 26'-8 5/8"
SCALE: 1/4" = 1'-0"

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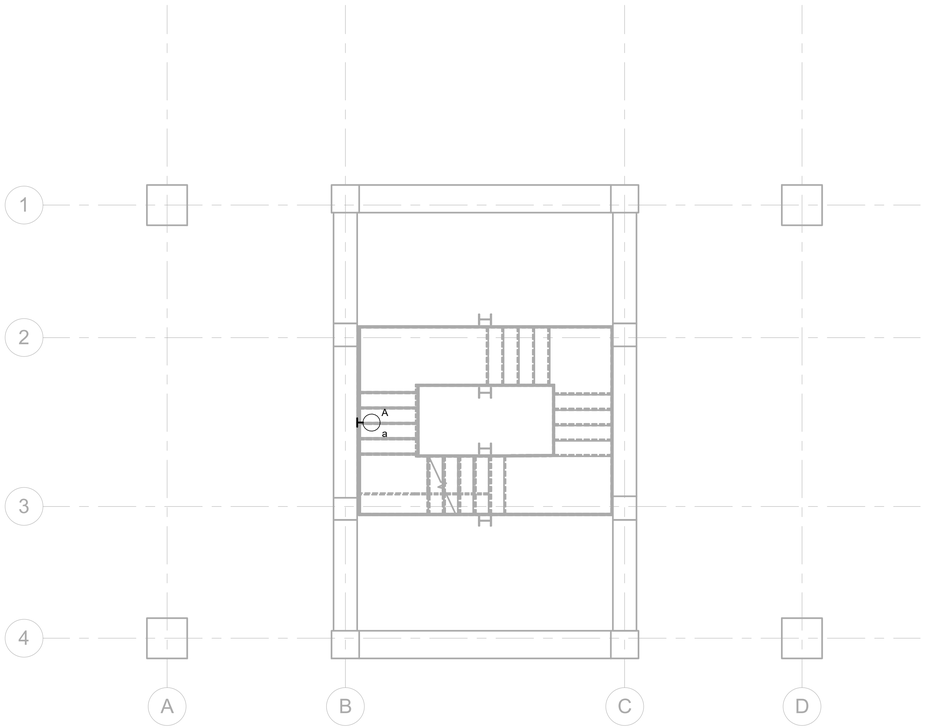
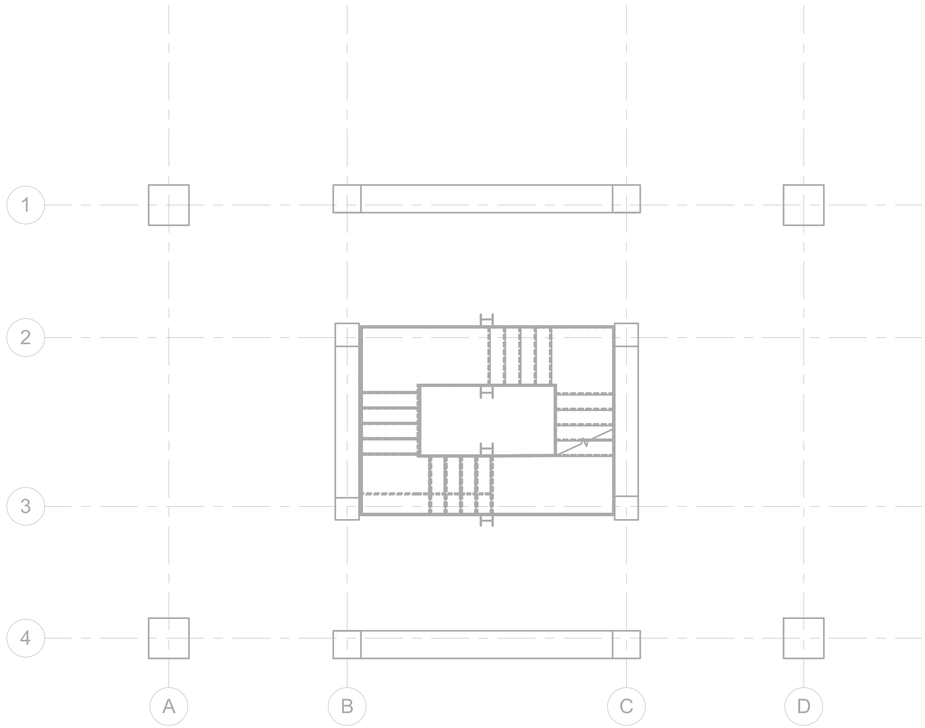
DESIGNED: DMK DRAWN: WPC TECH. BDS DATE: 02/28/2018	SUB SHEET NO. E-1.04	TITLE OF **ELECTRICAL LIGHTING LEVEL 8 & 9** Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING 850 140341 PMIS/PKG 214371 SHEET 51 OF 61



1 E-1.05 ELECTRICAL LIGHTING LEVEL 10 PLAN - 29'-8 7/8"
SCALE: 1/4" = 1'-0"



2 E-1.05 ELECTRICAL LIGHTING LEVEL 11 PLAN 32'-9 1/4"
SCALE: 1/4" = 1'-0"

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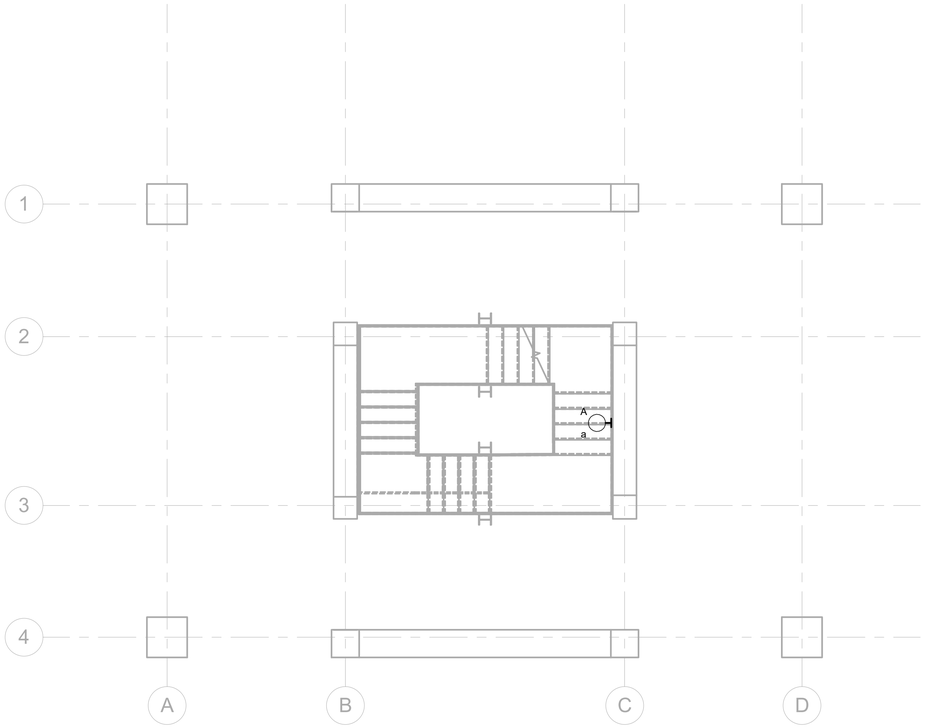
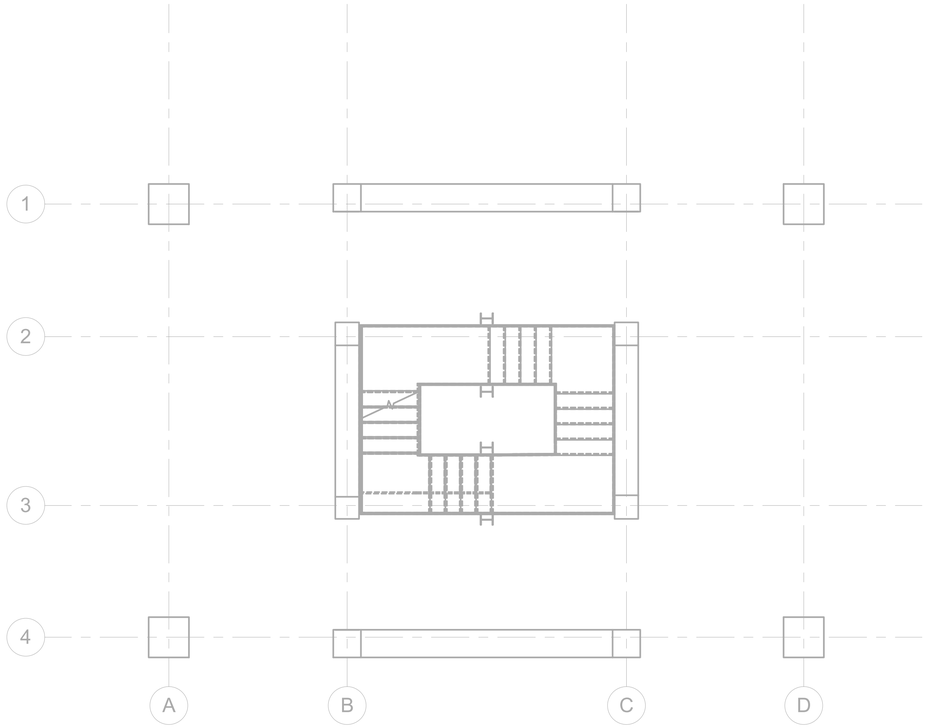
DESIGNED: DMK CADD: WPC TECH. BDS DATE: 02/28/2018	SUB SHEET NO. E-1.05	TITLE OF **ELECTRICAL LIGHTING LEVEL 10 & 11** Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING 850 140341 PMIS/PKG 214371 SHEET 52 OF 61



1 E-1.06 ELECTRICAL LIGHTING LEVEL 12 PLAN - 35'-9 1/2"
SCALE: 1/4" = 1'-0"



2 E-1.06 ELECTRICAL LIGHTING LEVEL 13 PLAN - 38'-9 7/8"
SCALE: 1/4" = 1'-0"

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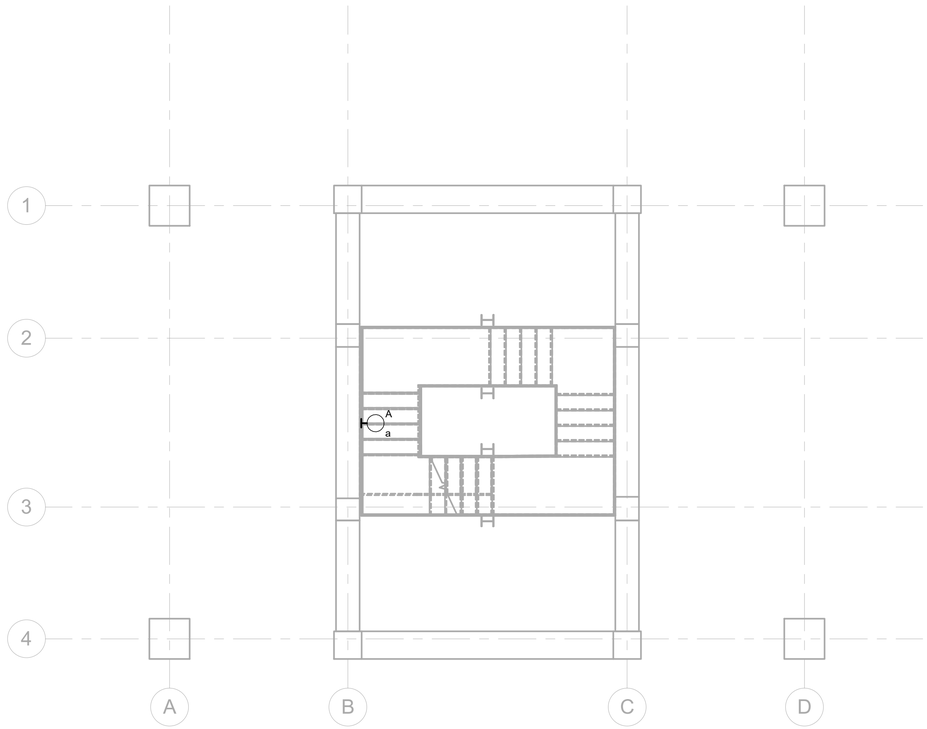
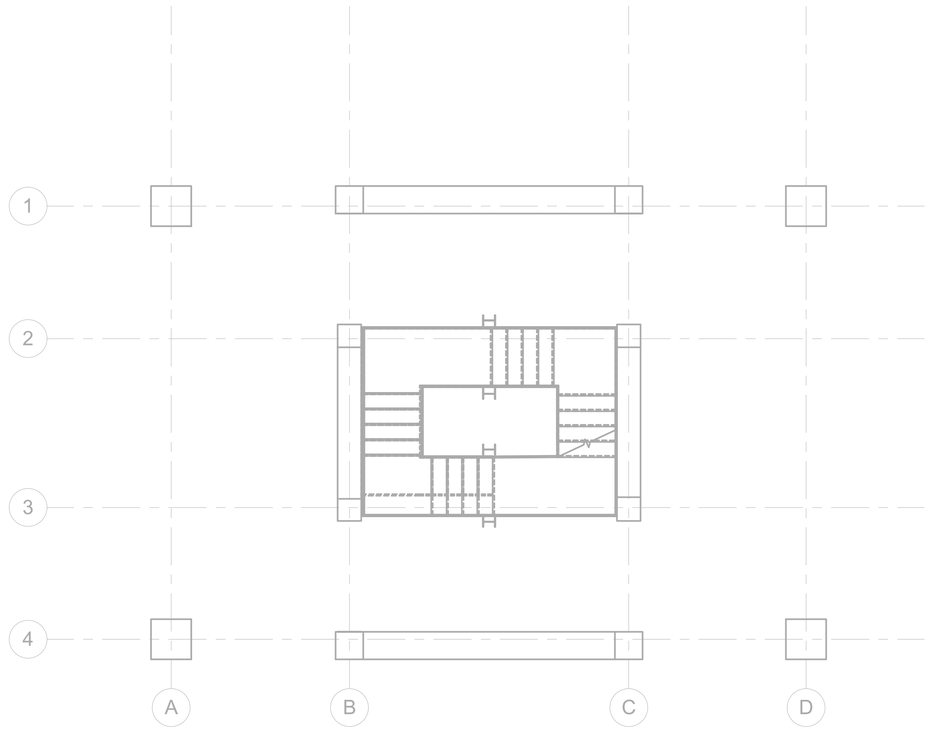
DESIGNED: DMK CADD: WPC TECH. BDS DATE: 02/28/2018	SUB SHEET NO. E-1.06	TITLE OF **ELECTRICAL LIGHTING LEVEL 12 & 13** Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING 850 140341 PMIS/PKG 214371 SHEET 53 OF 61



1 E-1.07 ELECTRICAL LIGHTING LEVEL 14 PLAN - 41'-10 1/4"
SCALE: 1/4" = 1'-0"



2 E-1.07 ELECTRICAL LIGHTING LEVEL 15 PLAN - 44'-10 1/2"
SCALE: 1/4" = 1'-0"

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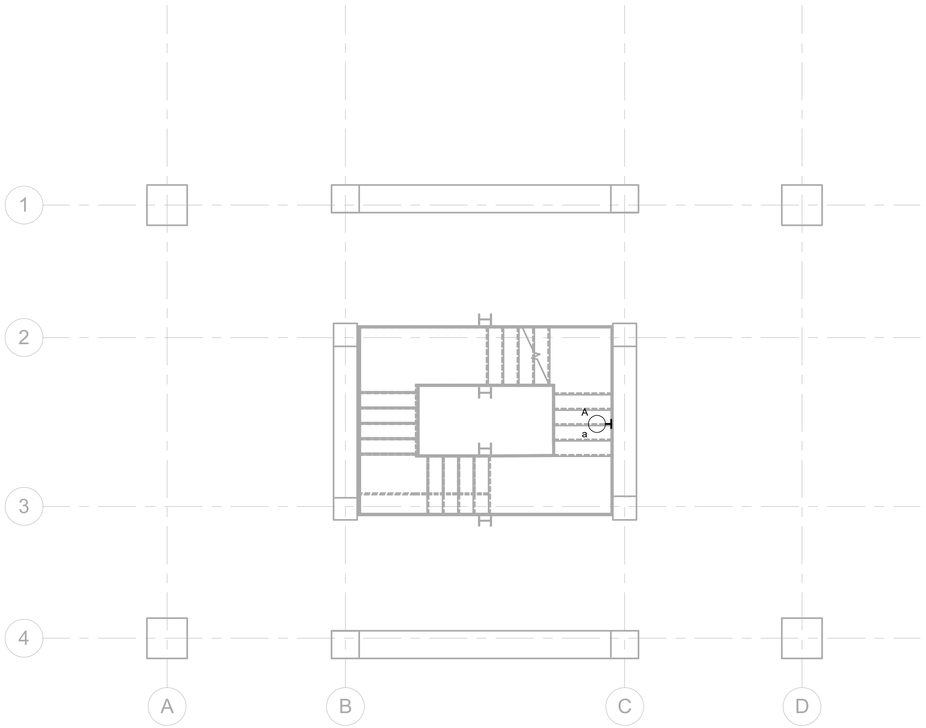
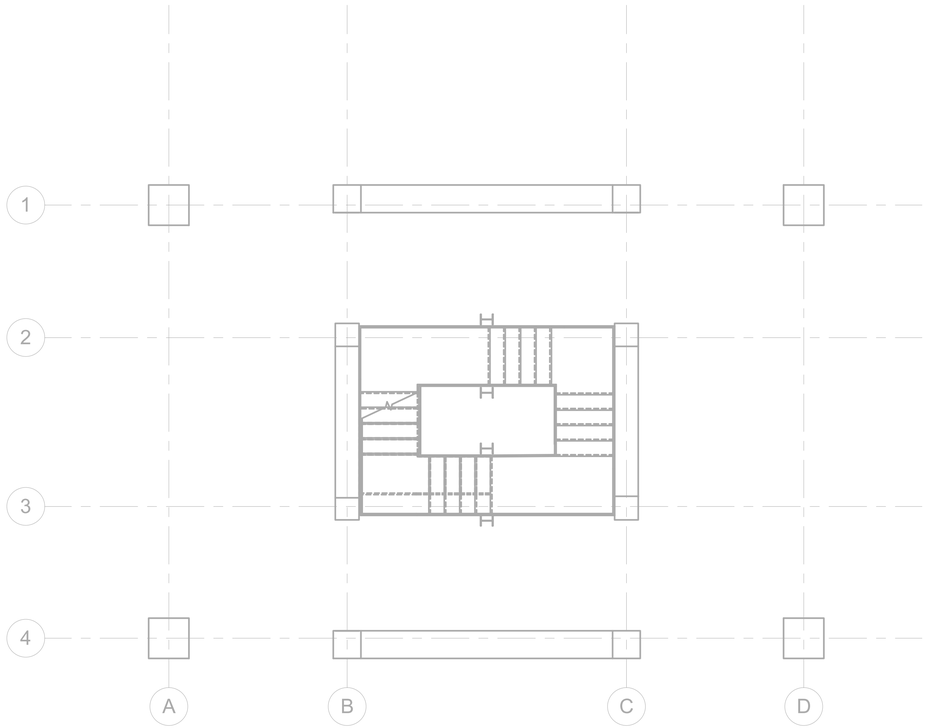
DESIGNED: DMK DRAWN: WPC TECH. BDS DATE: 02/28/2018	SUB SHEET NO. E-1.07	TITLE OF **ELECTRICAL LIGHTING LEVEL 14 & 15** Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING 850 140341 PMIS/PKG 214371 SHEET 54 OF 61



1 E-1.08 ELECTRICAL LIGHTING LEVEL 16 PLAN - 47'-10 7/8"
SCALE: 1/4" = 1'-0"



2 E-1.08 ELECTRICAL LIGHTING LEVEL 17 PLAN - 50'-11 1/8"
SCALE: 1/4" = 1'-0"

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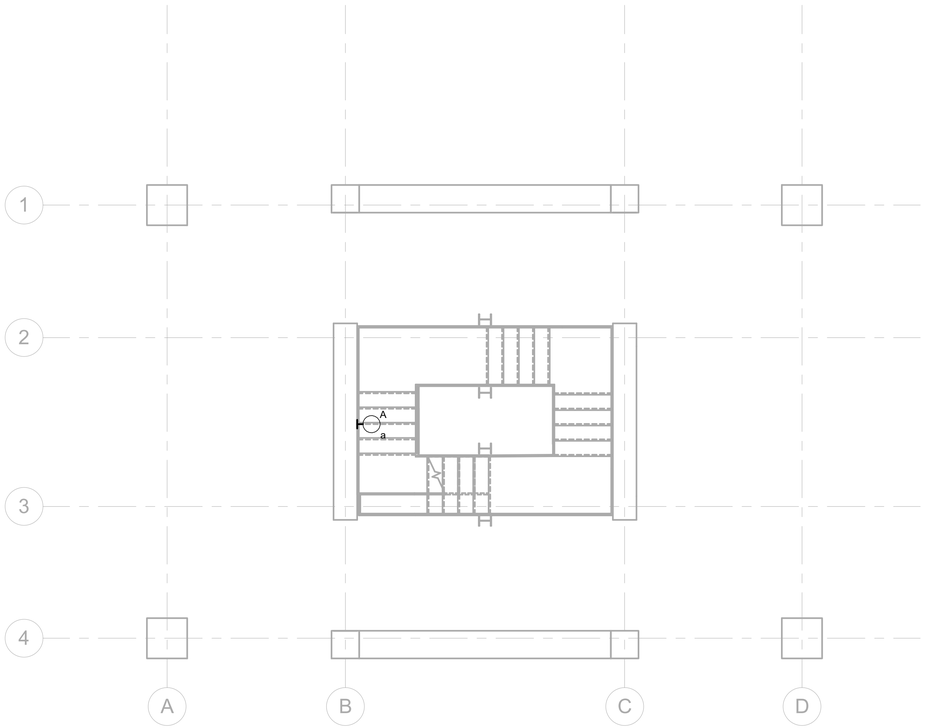
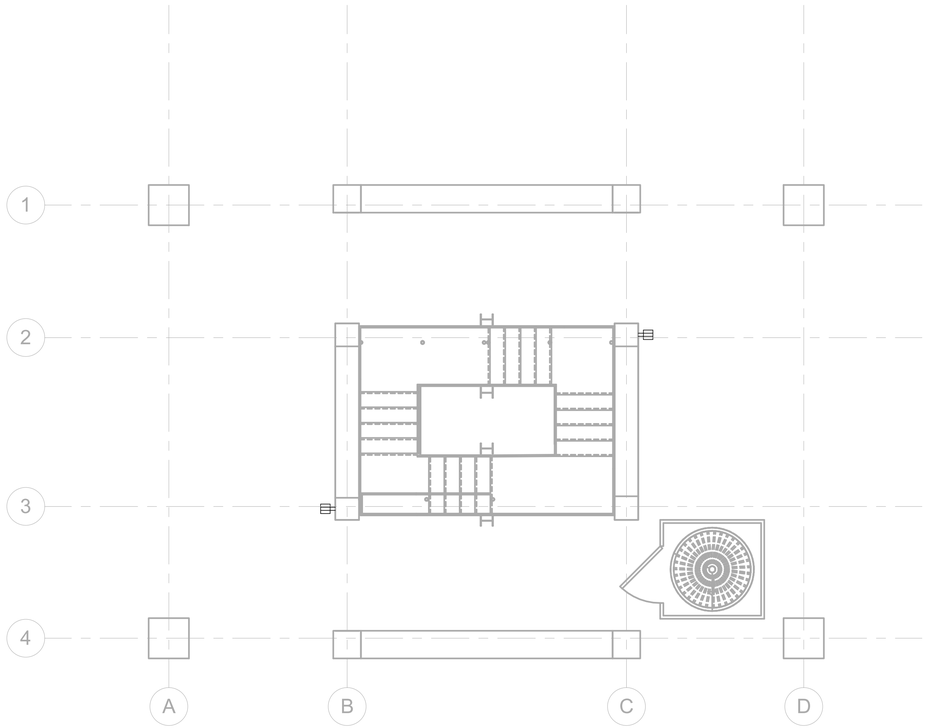
DESIGNED: DMK DRAWN: WPC TECH. BDS DATE: 02/28/2018	SUB SHEET NO. E-1.08	TITLE OF **ELECTRICAL LIGHTING LEVEL 16 & 17** Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING 850 140341 PMIS/PKG 214371 SHEET 55 OF 61



1 E-1.09 ELECTRICAL LIGHTING LEVEL 18 PLAN - 53'-11 1/2"
SCALE: 1/4" = 1'-0"



2 E-1.09 ELECTRICAL LIGHTING LEVEL 19 PLAN - 56'-11 3/4"
SCALE: 1/4" = 1'-0"

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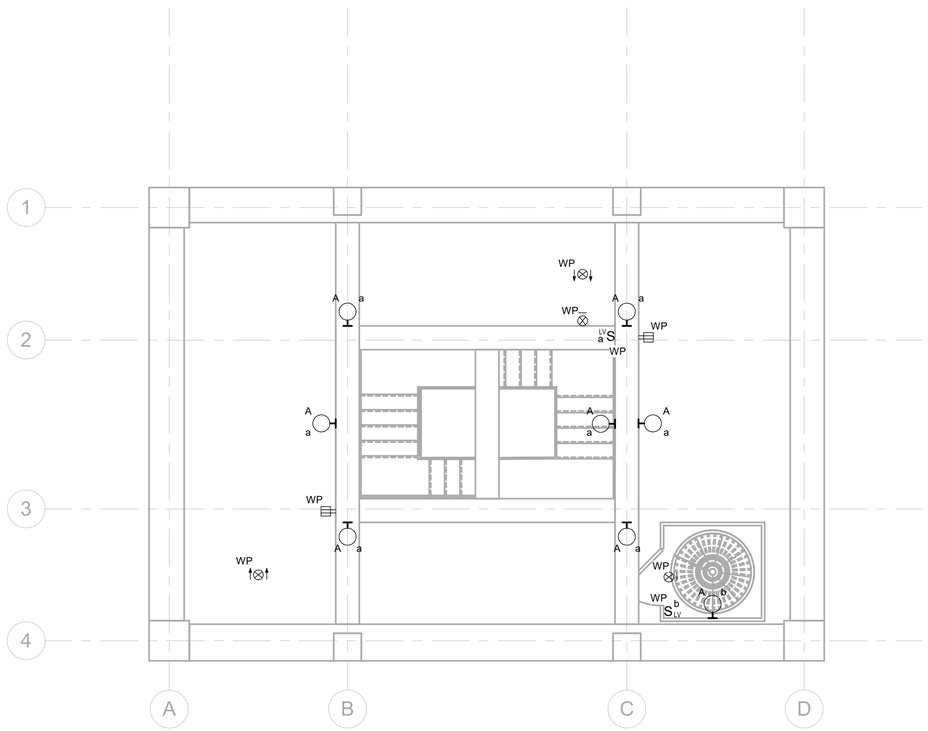
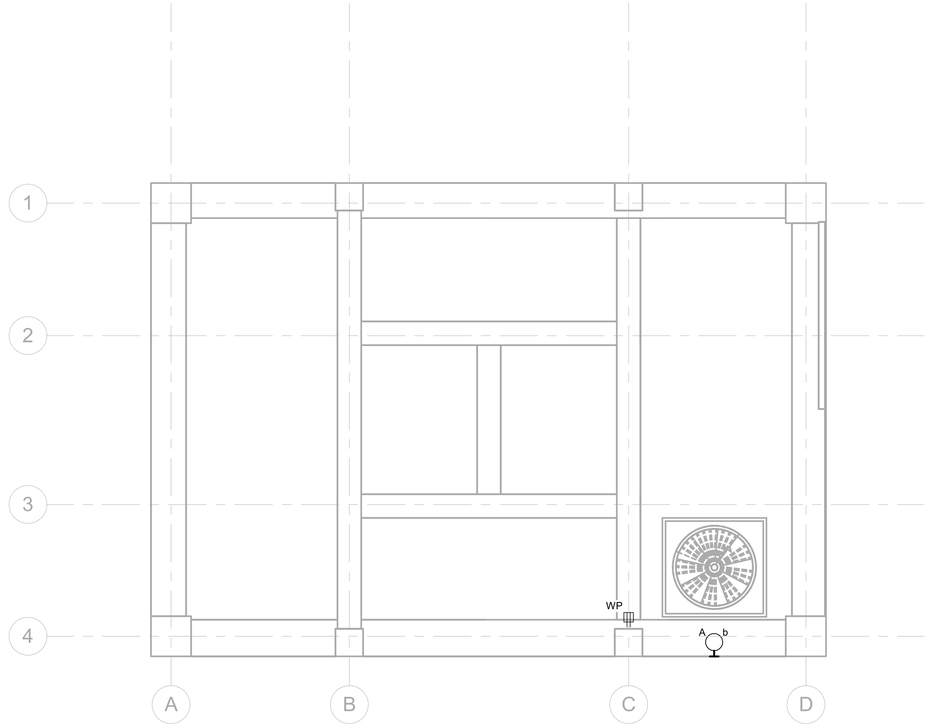
DESIGNED: DMK CADD: WPC TECH. BDS DATE: 02/28/2018	SUB SHEET NO. E-1.09	TITLE OF **ELECTRICAL LIGHTING AND POWER LEVEL 18 & 19** Netherlands Carillon NPS GWMP 214371 100% Draft Schematic Design	DRAWING 850 140341 PMIS/PKG 214371 SHEET 56 OF 61



1 E-1.10 ELECTRICAL LIGHTING OBSERVATION DECK 1 PLAN - 60'-0 1/8"
SCALE: 1/4" = 1'-0"



2 E-1.10 OBSERVATION DECK 1.1 BELL CHAMBER PLAN
SCALE: 1/4" = 1'-0"

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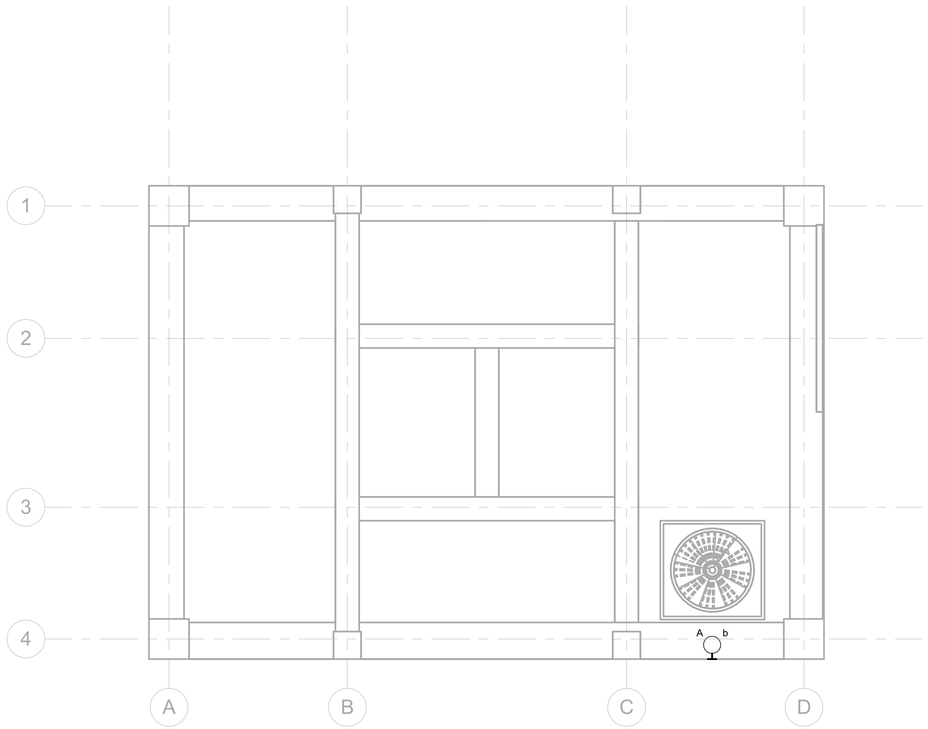
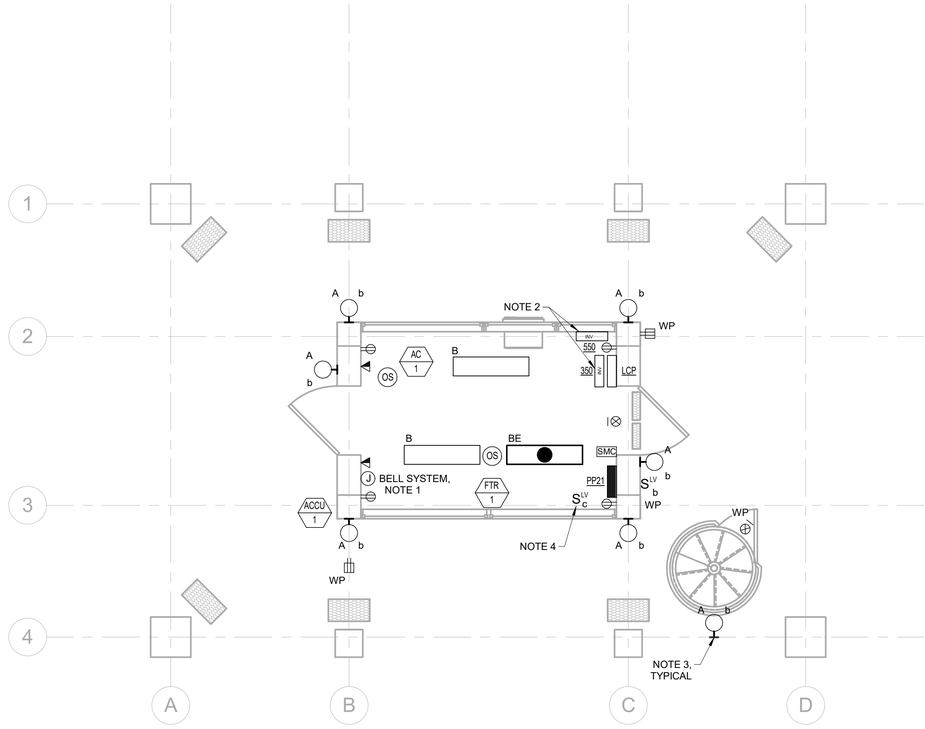


1 E-1.11 OBSERVATION DECK 1.2 BELL CHAMBER PLAN
SCALE: 1/4" = 1'-0"



2 E-1.11 OBSERVATION DECK 2 PLAN
SCALE: 1/4" = 1'-0"

SHEET NOTES

1. BELL SYSTEM HOMERUN TO BE (2) 20A, 208V HOMERUNS. PROVIDE (2) 20A-2P BREAKERS AS REQUIRED.
2. PROVIDE FLOOR MOUNTED INVERTERS AS INDICATED. INSTALLTHE 350W UNIT UNDER THE LCP. THE FRONT OF THE INVERTER AND LCP ARE TO BE INSTALLED SO THEY ARE EVEN IN ORDER TO SATISFY WORKING CLEARANCE REQUIREMENTS. FUR OUT LCP AS REQUIRED.
3. WIRE FIXTURES ON SWITCH "b" VIA 350W INVERTER, TYPICAL.
4. SWITCH FOR MONUMENT LIGHTS, LABEL AS SUCH.

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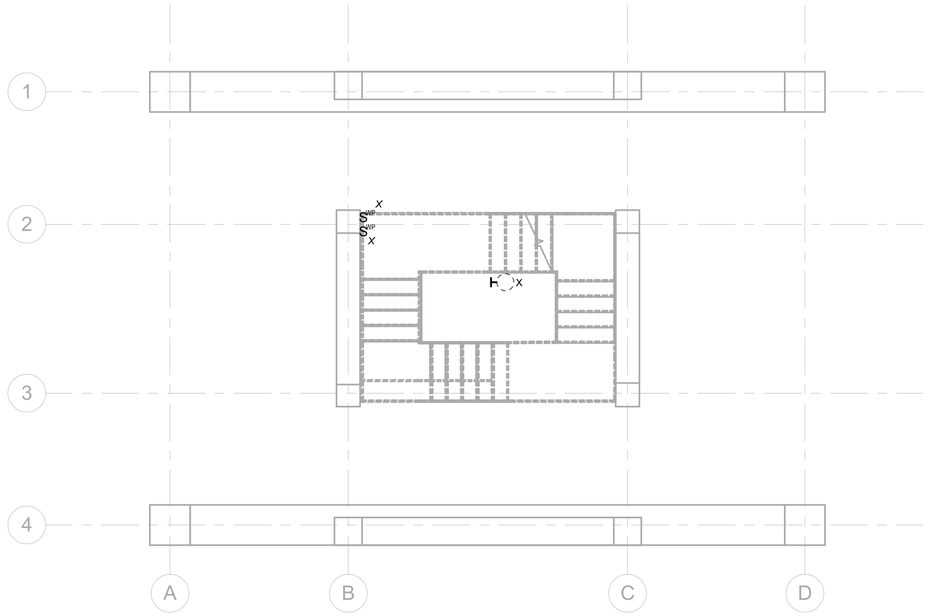
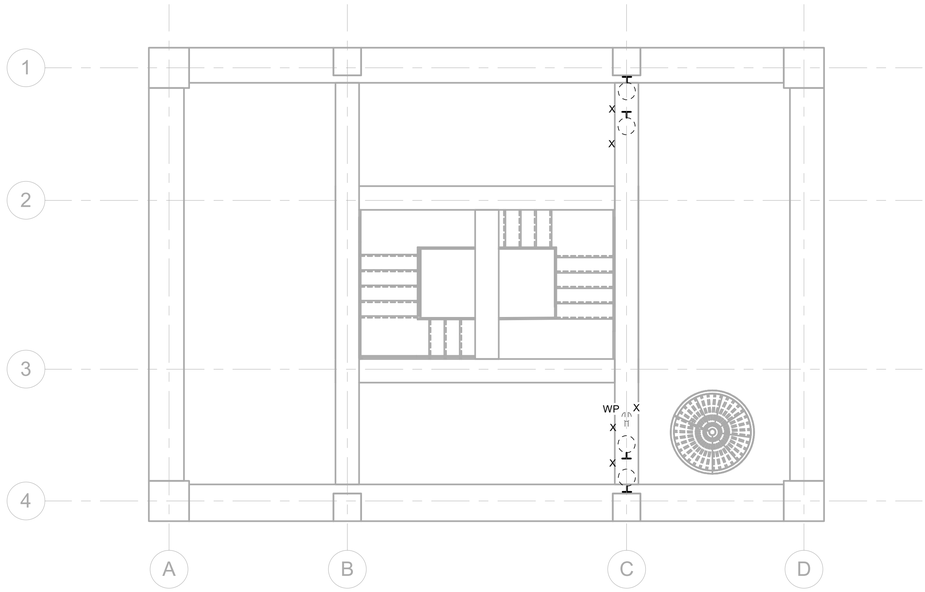
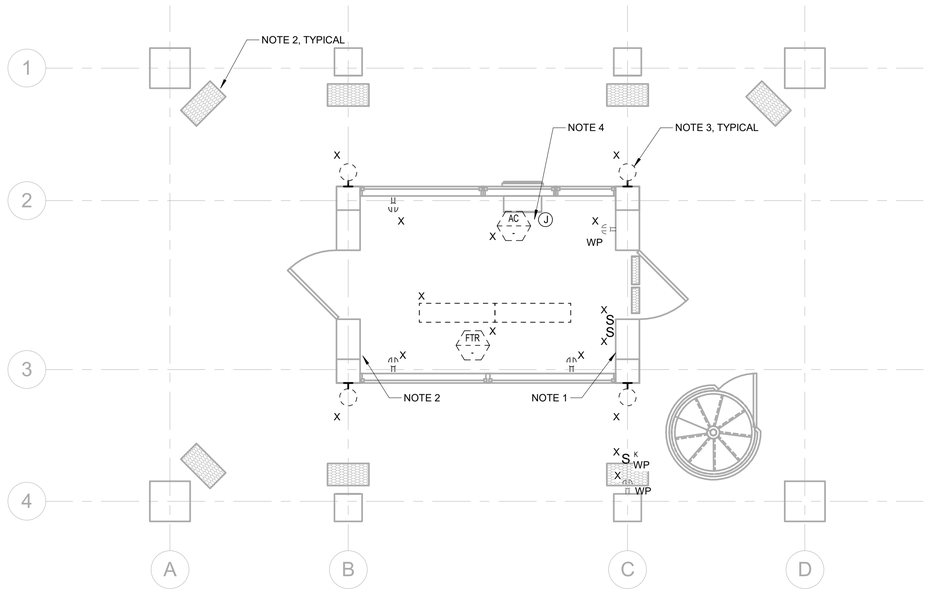


1 ED-1.00 LEVEL 0 PLAZA DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



2 ED-1.00 OBSERVATION DECK 1.1 AND 1.2 BELL DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



3 ED-1.00 OBSERVATION DECK 2 DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

SHEET NOTES

1. REMOVE PANELS, CONTACTOR, RECEPTACLE, ENCLOSED BREAKER AND TIMECLOCK AT LOCATION INDICATED.
2. MONUMENT LIGHTING IS EXISTING TO REMAIN.
3. REMOVE PLATFORM, STAIR LIGHTS, AND ASSOCIATED SWITCHES AS INDICATED. ALL CONDUIT AND WIRING TO BE REMOVED TO SOURCE.
4. REMOVE RECEPTACLE FOR AC UNIT. CONDUIT AND WIRING TO BE REMOVED TO SOURCE.

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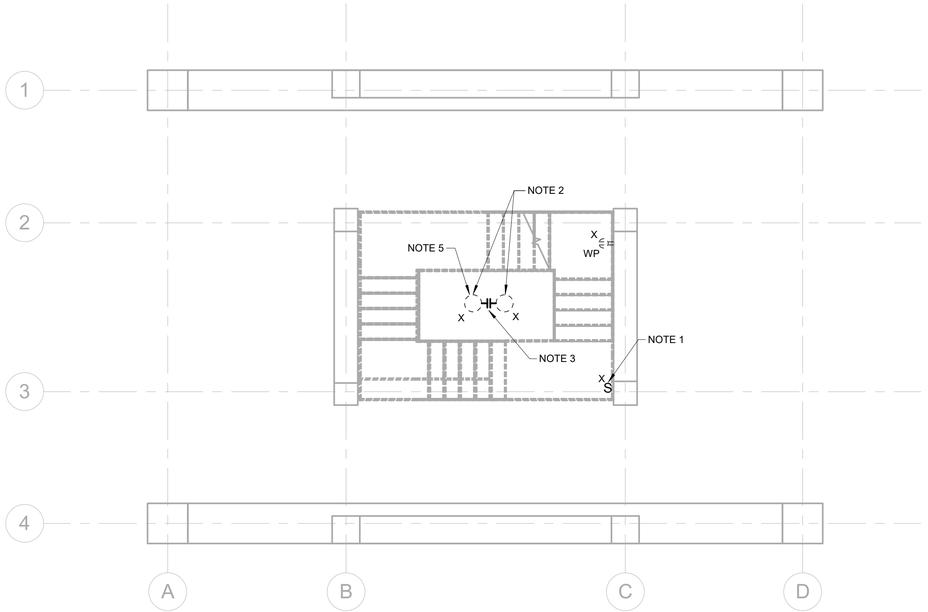
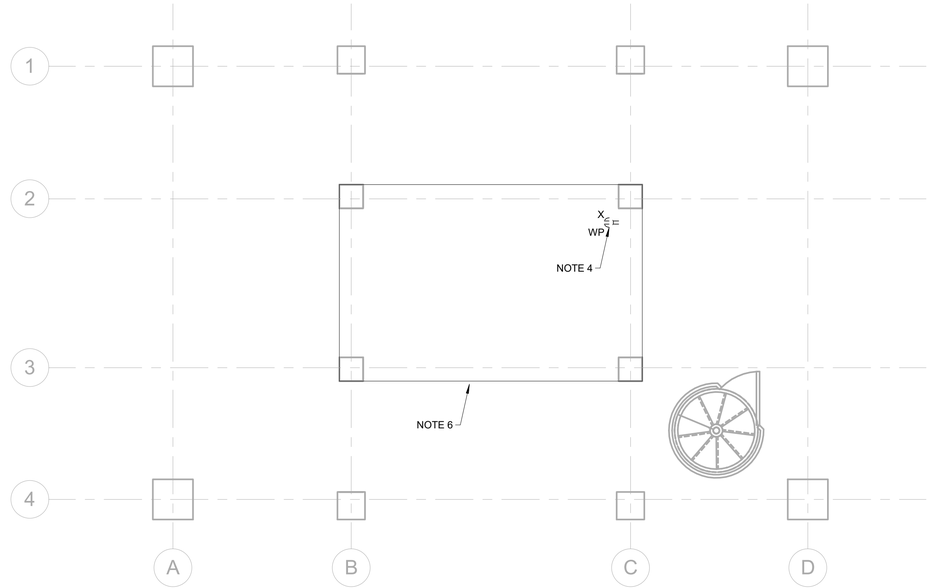


2 ED-1.01 LEVEL 0-19 DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



1 ED-1.01 OBSERVATION DECK 2 ROOF DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

SHEET NOTES

1. REMOVE SWITCH AND RECEPTACLE AT LEVEL 0.
2. REMOVE STAIR LIGHT FIXTURES INSTALLED FROM LEVEL 0 THRU 19, (10) FIXTURES TOTAL. REMOVE CONDUIT AND WIRING BACK TO THE SOURCE.
3. FOR CONDUIT TO REMAIN, REPLACE ALL CONDUIT SUPPORT CLIP BOLTS, TYPICAL.
4. REMOVE AVIATION LIGHTING CONTROLLER AND JUNCTION BOX. REMOVE CONDUIT AND WIRING BACK TO THE SOURCE.
5. REMOVE COMMUNICATIONS AND POWER PULLBOXES AT LEVEL 0, REFER TO NEW WORK PLANS FOR REPLACEMENT.
6. MONUMENT LIGHT FIXTURES AND ASSOCIATE CONDUIT ON ROOF ARE TO BE REMOVED AND RE-INSTALLED TO ACCOMMODATE ROOF PANEL REPLACEMENT. COORDINATE ALL WORK WITH ARCHITECT AND G.C.

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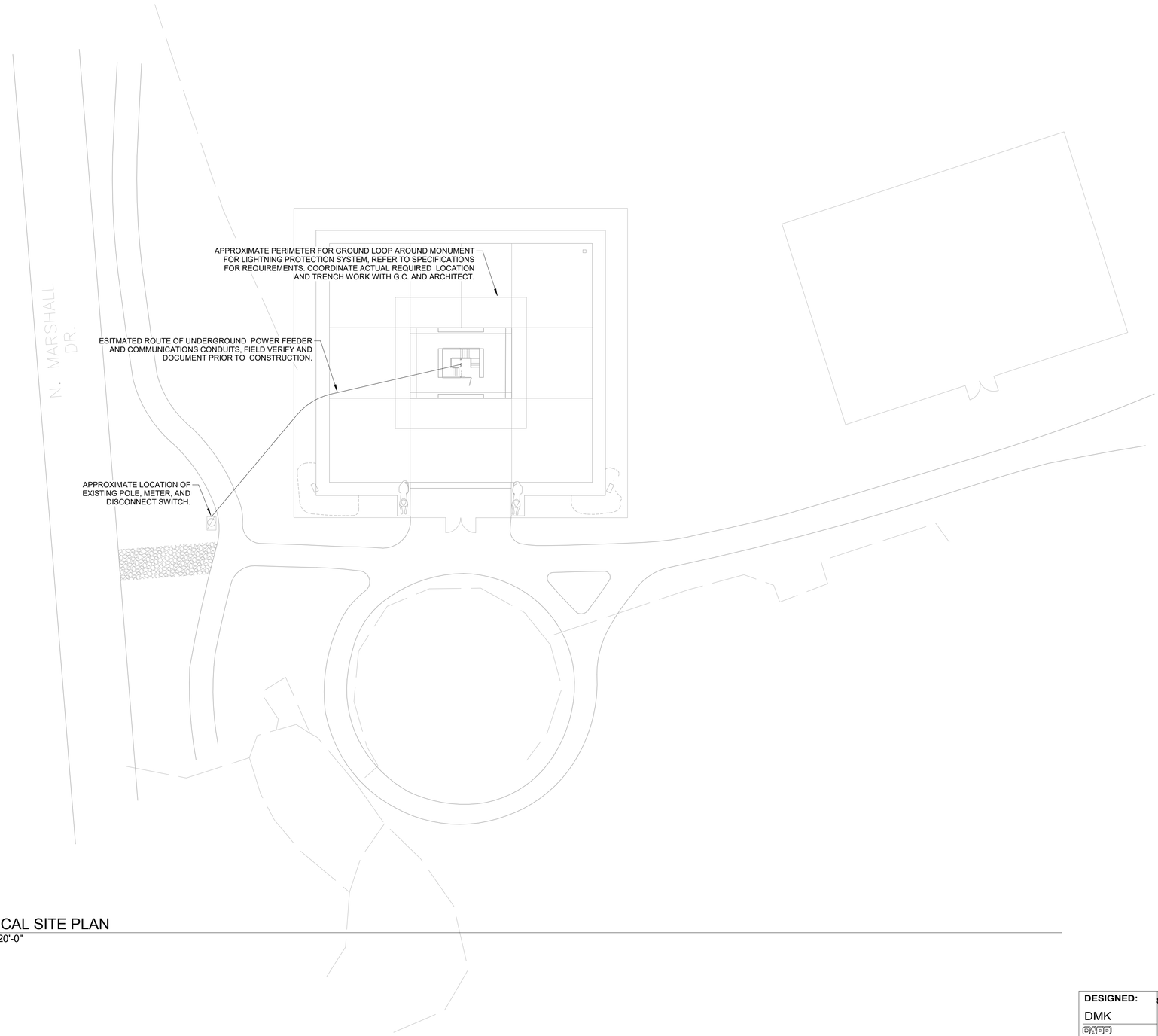

1 / ES-1.00 ELECTRICAL SITE PLAN
SCALE: 1" = 20'-0"

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