GENERAL ARCHITECTURAL NOTES

1. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL NEW AND EXISTING CONDITIONS AND DIMENSIONS AT JOB SITE FOR COMPARISON WITH DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AT ONCE, AND AT LEAST FIVE (5) DAYS PRIOR TO PROCEEDING WITH WORK, OF ANY INCONSISTENCIES OR OMISSIONS DISCOVERED.
2. DIMENSIONS: DO NOT SCALE DRAWINGS. CONTRACTOR SHALL RELY ON WRITTEN DIMENSIONS. AT LEAST FIVE (5) DAYS PRIOR TO COMMENCING WORK, DIMENSIONS SHALL BE FIELD VERIFIED AND COORDINATED WITH ALL THE WORK OF ALL TRADES. IF DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR CLARIFICATIONS BEFORE THE COMMENCEMENT OR RESUMPTION OF WORK.
3. THE CONTRACTOR SHALL PROTECT ALL FINISHED WORK AND SURFACES FROM DAMAGE DURING THE COURSE OF CONSTRUCTION AND SHALL REPLACE AND REPAIR ALL DAMAGE CAUSED BY NEW WORK TO EXISTING AREAS OF THE SITE, CONSTRUCTION WORK, FINISH CONSTRUCTION WORK, ELECTRICAL AND MECHANICAL SYSTEMS CAUSED BY THE CONTRACTOR OR SUBCONTRACTOR PERSONNEL TO THE SATISFACTION OF THE OWNER AND ARCHITECT TO MATCH EXISTING CONDITIONS OR AS FOUND PRIOR TO THE DAMAGE.
4. POWER DRIVEN FASTENERS SHALL BE USED ONLY IN PROTECTED LOCATIONS.
5. FIRE EXTINGUISHERS: MAINTAIN FULLY CHARGED, UL LABELED, MINIMUM 10 LB, ABC FIRE EXTINGUISHER AT EVERY LOCATION WHERE WELDING IS BEING PERFORMED. PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2A WITHIN A 75 FOOT TRAVEL DISTANCE OF ALL PORTIONS OF BUILDING WITHIN SCOPE.
6. FINAL CLEAN UP AND DISPOSAL: REMOVE DEBRIS, RUBBISH AND WASTE MATERIAL FROM THE OWNER'S PROPERTY TO A LAWFUL DISPOSAL AREA AND PAY ALL HAULING AND DUMPING COSTS. CONFORM TO PERTAINING FEDERAL, STATE AND LOCAL LAWS, REGULATIONS AND ORDERS. UPON COMPLETION OF WORK, ALL CONSTRUCTION AREAS SHALL BE LEFT VACUUM-CLEAN AND FREE FROM DEBRIS. CLEAN ALL DUST, DIRT, STAINS, HAND MARKS, PAINT SPOTS, DROPPINGS, AND OTHER BLEMISHES.
7. CONTACT BETWEEN DISSIMILAR METALS SHALL BE PROTECTED BY COATING WITH BITUMINOUS PAINT, BY THE USE OF TAPE, OR BY OTHER METHODS. SEE SPECIFICATIONS.
8. FIRE SAFETY METHODS DURING CONSTRUCTION SHALL COMPLY WITH LOCAL FIRE CODES FOR FIRE SAFETY DURING CONSTRUCTION, ALTERATION OR DEMOLITION OF A BUILDING.
9. PROTECTION DURING WELDING: CONFORM TO LOCAL CODES, FURTHER PROTECT OCCUPANTS AND THE PUBLIC WITH PORTABLE SOLID VISION BARRICADES AROUND THE LOCATION WHERE WELDING IS BEING PERFORMED. PROVIDE SIGNS WARNING AGAINST LOOKING AT WELDING WITHOUT PROPER EYE PROTECTION. CONTACT THE LOCAL FIRE AUTHORITY FOR THE WELDING PERMIT.
10. THE CONTRACTOR SHALL MAINTAIN PROPER BARRICADES, RAILINGS, GUARDS, LIGHTS, OR ANY OTHER TEMPORARY DEVICES NECESSARY FOR THE PROTECTION OF LIFE AND PROPERTY.
11. INTERIOR WALL AND CEILING FINISHES SHALL NOT EXCEED A FLAME-SPREAD CLASSIFICATION OF 25 (CLASS A).
12. WHERE A SPECIFIC CONDITION IS DETAILED, IT SHALL BE UNDERSTOOD THAT ALL LIKE OR SIMILAR CONDITIONS ARE THE SAME UNLESS SPECIFICALLY NOTED OR DETAILED OTHERWISE.
13. LARGER SCALE DETAIL DRAWINGS TAKE PRECEDENCE OVER SMALLER SCALE DETAIL DRAWINGS.
14. CONTRACTOR SHALL COORDINATE, IN ADVANCE OF INSTALLATION, WITH ALL EQUIPMENT MANUFACTURERS FOR ALL ROUGH-IN REQUIREMENTS.
15. CONTRACTOR SHALL PROVIDE APPROVED WALL BACKING FOR ALL WALL-HUNG EQUIPMENT ACCORDING TO EITHER TYPICAL BACKING DETAIL ON THE PROJECT DRAWING OR MANUFACTURER'S STANDARD DETAIL, WHICHEVER IS MORE STRINGENT.
16. CONTRACTOR SHALL PROVIDE AND INSTALL ACCESS PANELS, SIZED AS REQUIRED AT ALL CONCEALED MECHANICAL AND PLUMBING ITEMS THAT REQUIRE SERVICE OR ACCESS [VALVES, FIRE DAMPERS, BALANCING DAMPERS, DUCT HEATERS, ETC.]. ACCESS PANELS IN RATED CEILINGS AND PARTITIONS SHALL HAVE APPROPRIATE U.L. LABEL.

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: JR/LJ
DRAWN BY: ZKS
CHECKED BY: NB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA L. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

VRE

STV 100 Years
STV Incorporated
2701 Prosperity Ave, Suite 305
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QUANTICO STATION

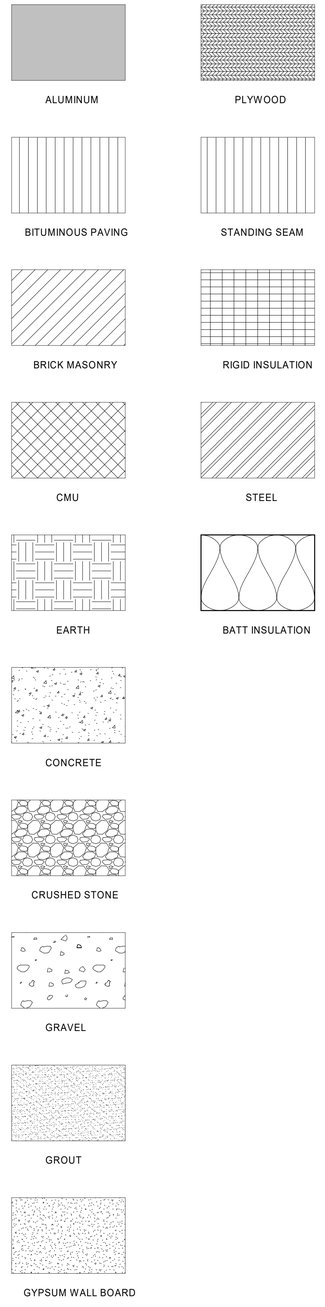
ARCHITECTURAL NOTES

IFB NO: IFB-020-019
DRAWING NO: A-000
SCALE: 12" = 1'-0"
SHEET NO: 61 OF 202

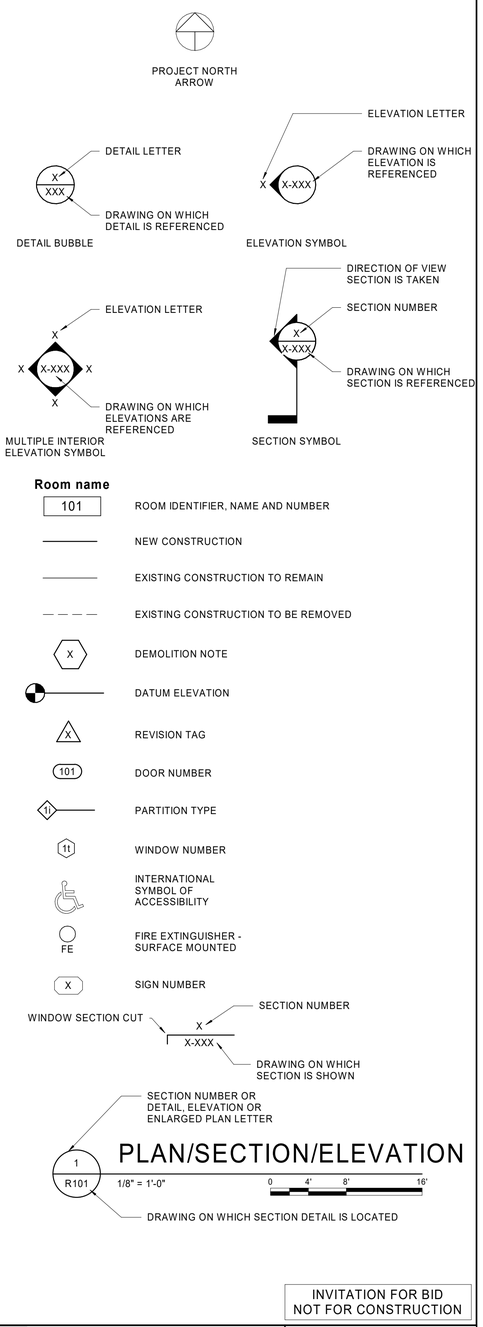
ABBREVIATIONS - ARCHITECTURE

AB	ANCHOR BOLT
ABAN	ABANDON
A/C	AIR CONDITION
A/C UNIT	AIR CONDITIONING UNIT
ACS DR	ACCESS DOOR
ACS PNL	ACCESS PANEL
ACST	ACOUSTIC
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN
ADA	AMERICANS WITH DISABILITIES ACT
ADDL	ADDITIONAL
ADDM	ADDENDUM
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AGGR	AGGREGATE
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
ALM	ALARM
ALT	ALTERNATE
ALUM	ALUMINUM
ANN	ANNUNCIATOR
APPD	APPROVED
APPROX	APPROXIMATE
AR	AS REQUIRED
ARCH	ARCHITECT
ASPH	ASPHALT
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AUTO	AUTOMATIC
AUX	AUXILIARY
AVG	AVERAGE
AWT	ACOUSTICAL WALL TREATMENT
BC	BOLT CIRCLE, BOOKCASE
BD	BOARD
BF	BOTH FACES
BFP	BACKFLOW PREVENTER
BITUM	BITUMINOUS
BL	BASE LINE
BLDG	BUILDING
BLKT	BLANKET
BLT	BORROWED LIGHT
BLW	BELOW
BM	BEAM, BENCHMARK
BOS	BOTTOM OF STEEL
BOT	BOTTOM
B PL	BASE PLATE
BR	BEDROOM
BRZ	BRONZE
BS	BOTH SIDES
BSMT	BASEMENT
BTWN	BETWEEN
BUR	BUILT-UP ROOF
C	CHANNEL
CAB	CABINET
CB	CERAMIC BASE
CCTV	CLOSED CIRCUIT TELEVISION
CCW	COUNTERCLOCKWISE
CEM	CEMENT
CER	CERAMIC
CF/CI	CONTRACTOR FURNISHED / CONTR INSTALL
CFE	CONTRACTOR FURNISHED EQUIP
CFM	CUBIC FOOT (FEET) PER MINUTE
CF/OI	CONTRACTOR FURNISHED / OWNER INSTALL
CFS	CUBIC FOOT (FEET) PER SECOND
CG	CORNER GUARD
CHB	CHALKBOARD
CHFR	CHAMFER
CHK	CHECK
CIR	CIRCLE
CJ	CONTROL JOINT
CKT	CIRCUIT
CKT BRKR	CIRCUIT BREAKER
CL	CENTER LINE, CLASS
℄	CENTER LINE
CLG	CEILING
CLG HT	CEILING HEIGHT
CLO	CLOSET
CLR	CLEAR
CLRM	CLASSROOM
CMU	CONCRETE MASONRY UNIT
CNTR	COUNTER
CO	CLEAN OUT, COMPANY
COL	COLUMN
CONC	CONCRETE
CONC FL	CONCRETE FLOOR
CONF	CONFERENCE
CONN	CONNECT
CONSTR	CONSTRUCTION
CONTR	CONTRACT, CONTRACTOR
COORD	COORDINATE
CORR	CORRIDOR
CPT	CARPET
CSK	COUNTERSUNK
CT	CERAMIC TILE
CTB	CERAMIC TILE BASE
CTD	COATED
CTG	COATING
CTR	CENTER
CTRL	CONTROL
CU FT	CUBIC FOOT (FEET)
CU IN	CUBIC INCH
CUR	CURRENT
CU YD	CUBIC YARD
CW	COLD WATER PIPING
CYL	CYLINDER
D	DEEP, DEPTH
DBL	DOUBLE
DEG	DEGREE
DEL	DELETE
DEPT	DEPARTMENT
DET	DETAIL
DEV	DEVELOPMENT
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGRAM
DIFF	DIFFERENCE, DIFFUSER
DIM	DIMENSION
DIR	DIRECTION
DISC	DISCONNECT
DISP	DISPENSER
DIST	DISTANCE
DIV	DIVISION
DMPR	DAMPER
DOM	DOMESTIC
DOZ	DOZEN
DR	DOOR, DRAIN, DRIVE
DS	DOWNSPOUT
DW	DISHWASHER
DWG	DRAWING
E	EAST
EA	EACH
EFF	EFFICIENCY
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC
ELEV	ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOSURE
ENGR	ENGINEER
ENTR	ENTRANCE
EOS	EDGE OF SLAB
EPA	ENVIRONMENTAL PROTECTION AGENCY
EQ	EQUAL
EQL SP	EQUALLY SPACED
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ESC	ESCAPE
ETC	AND SO FORTH
EVAP	EVAPORATE
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EX	EXAMPLE
EXH	EXHAUST
EXHV	EXHAUST VENT
EXIST	EXISTING
EXP JT	EXPANSION JOINT
EXT	EXTERIOR, EXTERNAL, EXTINGUISHER
F	FARENHEIT, FEMALE
FA	FIRE ALARM, FRESH AIR
FAB	FABRIC
FACP	FIRE ALARM CONTROL PANEL
FAI	FRESH AIR INLET
FC	FILE CABINET, FOOT CANDLE
FCO	FLOOR CLEANOUT
FCTY	FACTORY
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FDTN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER W/CABINET
FED	FEDERAL
FF	FINISH FACE
FF BATT	FOIL BACKED BATT INSULATION
FF&E	FURNITURE, FIXTURE & EQUIPMENT
F/F	FACE TO FACE
FH	FIRE HOSE
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FIG	FIGURE
FIL	FILLET
FIN	FINISH
FIN BS	FINISH BOTH SIDES
FIN FLR	FINISHED FLOOR
FIXT	FIXTURE
FLEX	FLEXIBLE
FLMT	FLUSH MOUNT
FLR	FLOOR
FLR SK	FLOOR SINK
FLUOR	FLUORESCENT
FN	FENCE
FP	FIREPROOF, FLAGPOLE
FPM	FOOT (FEET) PER MINUTE
FPS	FOOT (FEET) PER SECOND
FR	FRAME
FT	FOOT, FEET
FTG	FOOTING
FURN	FURNISH, FURNITURE
FUT	FUTURE
FWC	FABRIC WALL COVERING
G	GROUND
GA	GAGE
GAL	GALLON
GALV	GALVANIZED
GALV STL	GALVANIZED STEEL
GC	GENERAL CONTRACTOR
GCV	GAS VENT
GD	GUARD
GEN	GENERAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFRG	GLASS FIBER REINFORCED GYPSUM
GL	GLASS
GLZ	GLAZING
GOVT	GOVERNMENT
GP	GROUP
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GPS	GALLONS PER SECOND
GR FL	GROUND FLOOR
GR WT	GROSS WEIGHT
GRAN	GRANITE
GRTG	GRATING
GSU	GLAZED STRUCTURAL UNIT
GVL	GRAVEL
GWB	GYPSUM WALL BOARD
GYP BD	GYPSUM BOARD
GYP	GYPSUM
H	HATCH (ROOF), HIGH
HAZ	HAZARD
HB	HOSE BIBB
HC	HOLLOW CORE
HCMU	HOLLOW CONCRETE MASONRY UNIT
HCP	HANDICAPPED
HD	HEAD
HDBD	HARDBOARD
HDPE	HIGH DENSITY POLYETHYLENE
HDW	HARDWARE
HDWD	HARDWOOD
HDWL	HEADWALL
HEX	HEXAGON
HGR	HANGER
HH	HANDHOLE
HM	HOLLOW METAL
HNDRL	HAND RAIL
HORIZ	HORIZONTAL
HP	HIGH POINT
HPS	HIGH PRESSURE SODIUM
HQ	HEADQUARTERS
HS	HIGH STRENGTH
HT	HEIGHT
HVAC	HEATING, VENTILATING & AIR CONDITIONING
HW	HOT WATER
HWP	HOT WATER PUMP
Hz	HERTZ
ID	INSIDE DIAMETER, INSIDE DIMENSION
ID NO	IDENTIFICATION NUMBER
IF	INSIDE FACE
INCAND	INCANDESCENT
INCL	INCLUDED
INFO	INFORMATION
INSTR	INSTRUMENT
INSUL	INSULATION
INT	INTERIOR
INTL	INTERNATIONAL
IR	INSIDE RADIUS
J-BOX	JUNCTION BOX
JAN	JANITOR
JAN CLO	JANITOR'S CLOSET
KB	KNEE BRACE
KIT	KITCHEN
L	ANGLE
LA	LIGHTNING ARRESTER
LAB	LABORATORY
LAD	LADDER
LAM	LAMINATE
LAM GL	LAMINATED GLASS
LAV	LAVATORY
LB	POUND
LF	LINEAR FEET
LH	LEFT HAND
LHS	LEFT HAND SIDE
LIN	LINEAR
LINO	LINOLEUM
LIQ	LIQUID
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LNG	LONGITUDE
LP	LOW PRESSURE, LIGHT POLE
LPT	LOW POINT
LRA	LOCKED ROTOR AMPS
LS	LUMP SUM
LT	LIGHT
LTG	LIGHTING
LT WT	LIGHT WEIGHT
LVR	LOUVER
MACH	MACHINE
MACH RM	MACHINE ROOM
MAINT	MAINTENANCE
MAN	MANUAL
MAS	MASONARY
MATL	MATERIAL
MAX	MAXIMUM
MB	MAIL BOX, MIXING BOX
MECH	MECHANICAL
MECH RM	MECHANICAL ROOM
MEMB	MEMBRANE
MEZZ	MEZZANINE
MFD	MANUFACTURED
MFG	MANUFACTURING
MFR	MANUFACTURER
MFR REC	MANUFACTURER'S RECOMMENDATION
MGT	MANAGEMENT
MH	MANHOLE
MIC	MICROPHONE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MOD	MODEL, MODIFY
MOD BIT	MODIFIED BITUMEN
MON	MONUMENT
MPH	MILE(S) PER HOUR
MR	MOISTURE RESISTANT
MRT	MARBLE THRESHOLD
MS	MOP SINK
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
N	NORTH
NA	NOT APPLICABLE
NATL	NATIONAL
NEG	NEGATIVE
NEUT	NEUTRAL
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NON STD	NONSTANDARD
NORM	NORMAL
NTS	NOT TO SCALE
NT WT	NET WEIGHT
OA	OVERALL
OC	ON CENTER
OCC	OCCUPY
OD	OUTSIDE DIAMETER/ OVERFLOW DRAIN
OF/CI	OWNER FURNISHED / CONTRACTOR INSTALLED
OFF	OFFICE
OF/OI	OWNER FURNISHED / OWNER INSTALLED
OH	OVERHANG
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OPT	OPTIONAL
OR	OUTSIDE RADIUS
ORIG	ORIGINAL
OVFL	OVERFLOW
OZ	OUNCE
PARA	PARAGRAPH
PAT	PATTERN
PB	PULL BOX
PC	PIECE, POINT OF CURVE, PORTLAND CEMENT
PCT	PERCENT
PED	PEDESTAL
PERF	PERFORATED
PERIM	PERIMETER
PERM	PERMANENT
PERP	PERPENDICULAR
PH	PHASE
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
PL	PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLAT	PLATFORM
PLBG	PLUMBING
PLC	PLACE
PLF	POUNDS PER LINEAR FOOT
PLYWD	PLYWOOD
PN	PART NUMBER
PNEU	PNEUMATIC
PNL	PANEL
POB	POINT OF BEGINNING
PORC	PORCELAIN
POS	POSITION, POSITIVE
PP	POLYPROPYLENE
PR	PAIR
PREFAB	PREFABRICATE
PRELIM	PRELIMINARY
PRESS	PRESSURE
PREV	PREVIOUS
PRI	PRIMARY
PRKG	PARKING
PROJ	PROJECT
PSF	POUND PER SQUARE FOOT
PSI	POUND PER SQUARE INCH
PTD	PAINTED
PT	PAINT, PRESSURE TREATED
PTN	PARTITION
PVC	POLYVINYL CHLORIDE
PVG	PAVING
PWR	POWER
QA	QUALITY ASSURANCE
QC	QUALITY CONTROL
QT	QUARRY TILE
QTB	QUARRY TILE BASE
QTR	QUARTER
QTY	QUANTITY
QUAD	QUADRANT
R	RADIUS, RISER
RA	RETURN AIR
RAD	RADIAN, RADIATOR
RC	REINFORCED CONCRETE
RCP	REFLECTED CEILING PLAN
RCPTN	RECEPTION
RCVR	RECEIVER
RD	ROOF DRAIN
RDC	REDUCER
REC	RECESSED
RECPT	RECEPTACLE
RECT	RECTANGLE
REF	REFERENCE, REFRIGERATION
REFL	REFLECT
REINF	REINFORCE
REM	REMOVABLE
REPL	REPLACE
REQD	REQUIRED
RET	RETAINING, RETURN
REV	REVISION
RFI	REQUEST FOR INFORMATION
RH	RIGHT HAND
RM	ROOM
RND	ROUND
RO	ROUGH OPENING
RT	RIGHT
RTF	RUBBER TILE FLOOR
RWL	RAIN WATER LEADER
S	SOUTH
SAN	SANITARY
SAFB	SOUND ATTENUATION FIBERBOARD
SATC	SUSPENDED ACOUSTICAL TILE CEILING
SB	SPLASH BLOCK
SC	SOLID CORE
SCHED	SCHEDULE
SCHEM	SCHEMATIC
SCMU	SOLID CONCRETE MASONRY UNITS
SCP	SCUPPER
SD	STORM DRAIN
SDL	SADDLE
SECT	SECTION
SEP	SEPARATOR, SEPARATE
SF	SQUARE FOOT (FEET)
SHR	SHOWER
SHT	SHEET
SIM	SIMILAR
SLNT	SEALANT
SLV	SLEEVE
SP	STANDPIPE
SPEC	SPECIFICATION
SPKLR	SPRINKLER
SPKR	SPEAKER
SPLY	SUPPLY
SPRT	SUPPORT
SQ	SQUARE
SQ IN	SQUARE INCH
SQ YD	SQUARE YARD
SSP	STAINLESS STEEL PIPE
SST	STAINLESS STEEL
SSUR	SOLID SURFACE
STD	STANDARD
STIF	STIFFENER
STM	STEAM
STOR	STORAGE
STRUCT.	STRUCTURAL
SUM	SUMMARY
SUPT	SUPPORT
SURF	SURFACE
SUSP	SUSPEND
SVCE	SERVICE
SW	SIDEWALK
SWDR	SWING DOOR
SYM	SYMBOL
SYMM	SYMMETRICAL
SYS	SYSTEM
T	TREAD
TAN	TANGENT
T&B	TOP AND BOTTOM
TC	TERRA COTTA
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TEL	TELEPHONE
TEMP	TEMPERATURE, TEMPORARY
TER	TERRAZZO
T&G	TONGUE AND GROOVE
THD	THREAD
THK	THICKNESS
THRES	THRESHOLD
THRU	THROUGH
TO	TOP OF
TOC	TOP OF CONCRETE, TOP OF CURB
TOF	TOP OF FOOTING
TOL	TOLERANCE
TOM	TOP OF MASONRY
TOPO	TOPOGRAPHY
TOW	TOP OF WALL
TOS	TOP OF SLAB, TOP OF STEEL
TP	TELEPHONE POLE
TS	TUBE STEEL
TSTAT	THERMOSTAT
TV	TELEVISION
TYP.	TYPICAL
UGND	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
UN	UNLESS NOTED
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
UTIL	UTILITY
VAC	VACUUM
VAN	VANITY
VAR	VARIATION, VARIES
VB	VINYL BASE
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VOL	VOLUME
VR	VAPOR RETARDER
VTR	VENT THRU ROOF
VWC	VINYL WALL COVERING
W	WASTE, WEST, WIDE
W/	WITH
WC	WATER CLOSET
WCO	WALL CLEANOUT
WD	WOOD, WOOD DOOR
WDW	WINDOW
WF	WIDE FLANGE
WGL	WIRED GLASS
WH	WALL HYDRANT
WI	WROUGHT IRON
WM	WIRE MESH
W/O	WITHOUT
WP	WATER PROOFING, WEATHERPROOF
WT	WEIGHT
WTR	WATER
XFMR	TRANSFORMER
X SECT	CROSS SECTION
YD	YARD, YARD DRAIN
YH	YARD HYDRANT
YR	YEAR

GENERAL MATERIALS



GENERAL SYMBOLS



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NOT FOR CONSTRUCTION

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	0	06/10/20			INVITATION FOR BID

APPROVED BY COUNTY

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COMMONWEALTH OF VIRGINIA
LAURA J. JEFFORDS
Lic. No. 401017539
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ARCHITECT

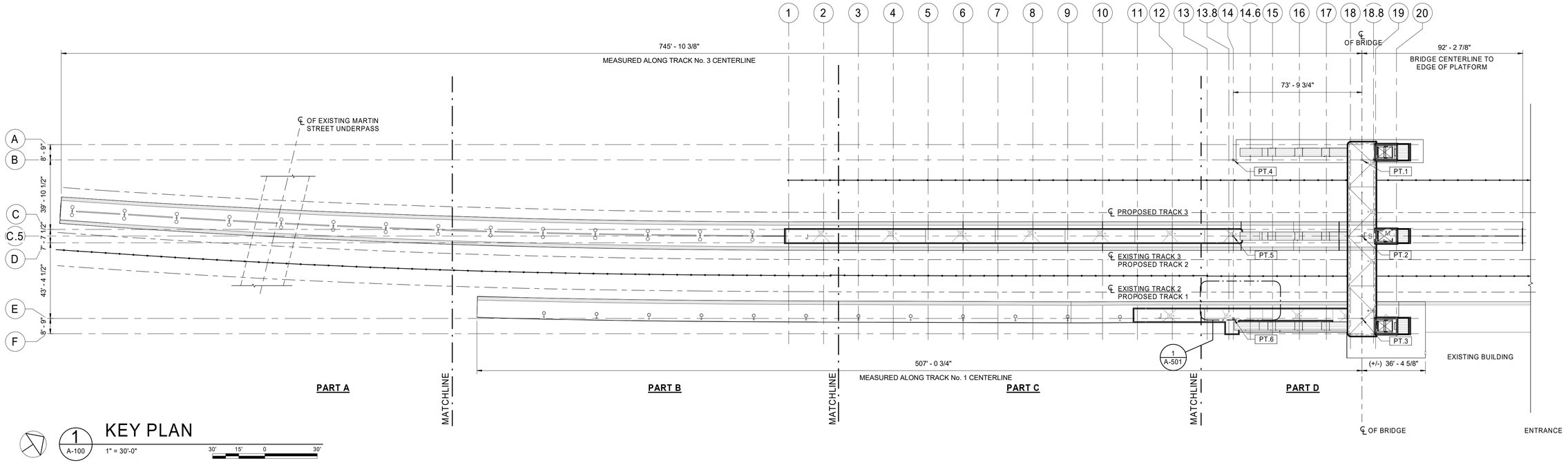
VRE

STV 100 Years
STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

STANDARD ABBREVIATIONS & GENERAL SYMBOLS

IFB NO: IFB-020-019
DRAWING NO: A-001
SCALE: 12" = 1'-0"
SHEET NO: 62 OF 202



1 A-100 KEY PLAN

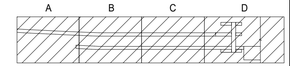
1" = 30'-0"

30' 15' 0 30'

STATION GRID LAYOUT

CONTROL PT.	DESCRIPTION	GRID LINE	NORTHING	EASTING
1	℄ BRIDGE	B	6,875,274.3037	11,828,045.3104
2	℄ BRIDGE	C.5	6,875,251.5334	11,828,082.5946
3	℄ BRIDGE	E	6,875,226.9389	11,828,122.8658
4	14	B	6,875,211.3099	11,828,006.8387
5	14	C.5	6,875,188.5396	11,828,044.1229
6	14	E	6,875,163.9451	11,828,084.3941

KEY PLAN



INVITATION FOR BID
NOT FOR CONSTRUCTION

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	0	06/10/20			INVITATION FOR BID
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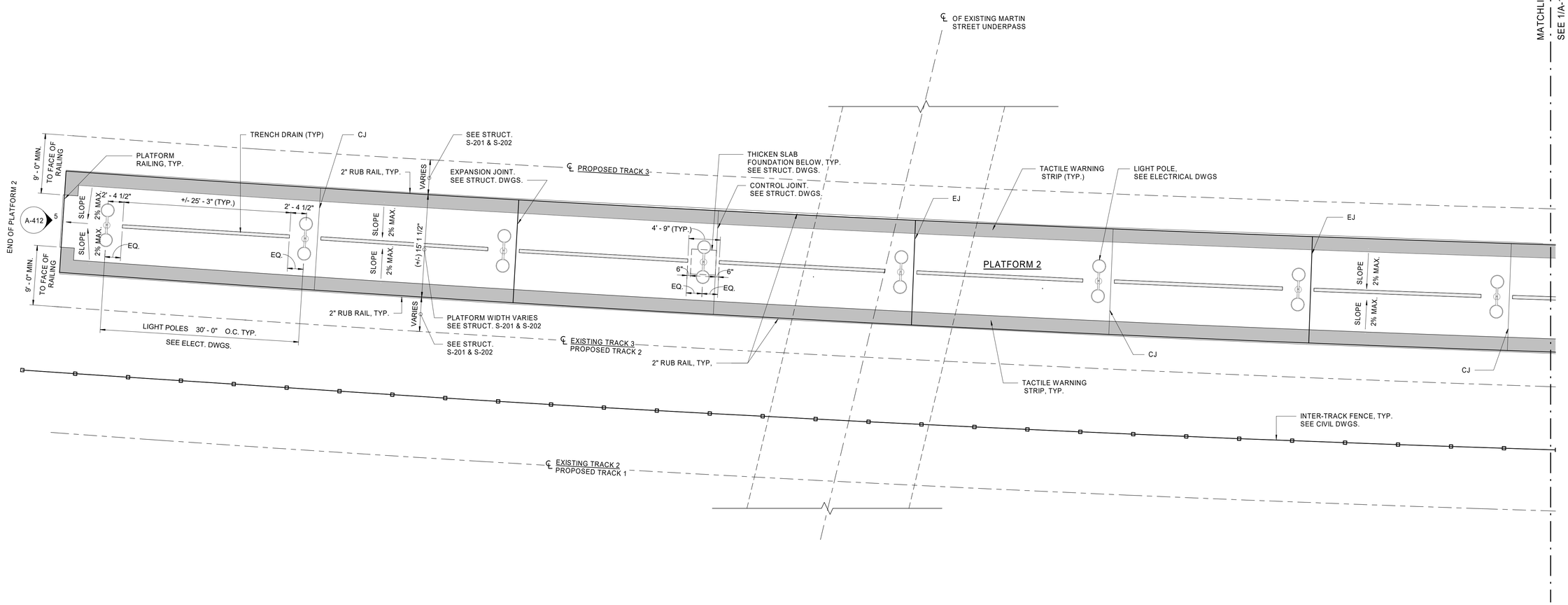
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QUANTICO STATION

SITE PLAN

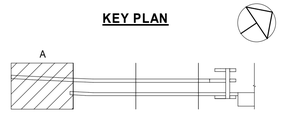
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SCALE: AS INDICATED
SHEET NO: 63 OF 202



NOTE:

SET TOP ELEVATION OF TRENCH DRAIN AT A 1% SLOPE FROM LOW SIDE ELEVATION AT EDGE OF CONCRETE PLATFORM, SLOPE NOT TO EXCEED 2%. SEE DRAWING S-201 AND S-202 FOR DETAILS.

KEY PLAN



1 / A-101 PLATFORM PLAN PART A

1/8" = 1'-0"

0 4' 8' 16'

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR
DRAWN BY: ZKS
CHECKED BY: NB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA J. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

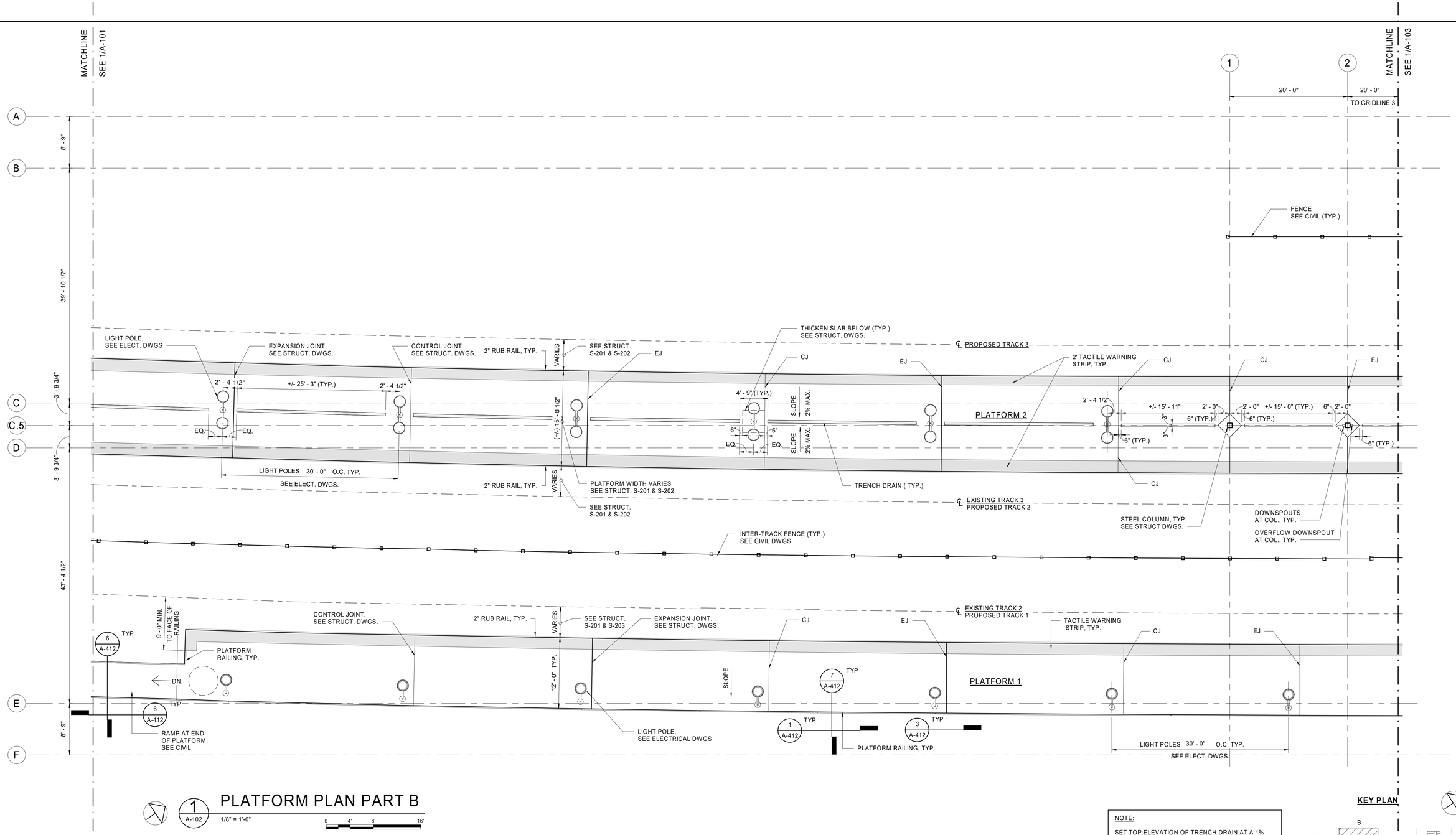
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Fairfax, VA 22031

QUANTICO STATION

PLATFORM PLAN PART A

IFB NO: IFB-020-019
DRAWING NO: A-101
SCALE: 1/8" = 1'-0"
SHEET NO: 64 OF 202



1 A-102 PLATFORM PLAN PART B

1/8" = 1'-0"

0 4' 8' 16'

NOTE:

SET TOP ELEVATION OF TRENCH DRAIN AT A 1% SLOPE FROM LOW SIDE ELEVATION AT EDGE OF CONCRETE PLATFORM, SLOPE NOT TO EXCEED 2%. SEE DRAWING S-201 AND S-202 FOR DETAILS.

KEY PLAN

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR
DRAWN BY ZKS
CHECKED BY: NB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
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Lic. No. 401017539
6/10/20
ARCHITECT

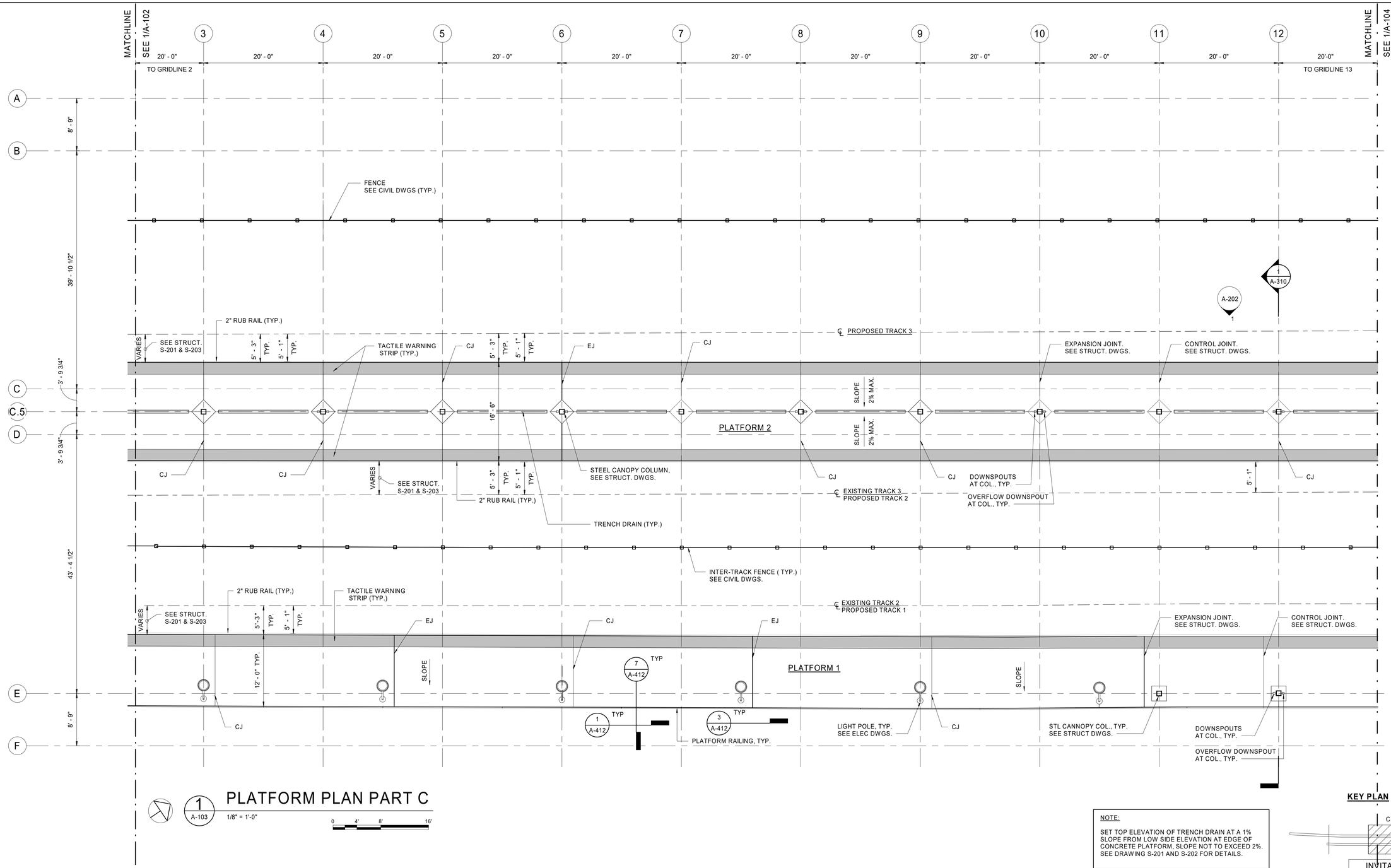
VRE

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Fairfax, VA 22031

QUANTICO STATION

PLATFORM PLAN PART B

IFB NO: IFB-020-019
DRAWING NO: A-102
SCALE: 1/8" = 1'-0"
SHEET NO: 65 OF 202



1 PLATFORM PLAN PART C

1/8" = 1'-0"

0 4' 8' 16'

NOTE:

SET TOP ELEVATION OF TRENCH DRAIN AT A 1% SLOPE FROM LOW SIDE ELEVATION AT EDGE OF CONCRETE PLATFORM, SLOPE NOT TO EXCEED 2%. SEE DRAWING S-201 AND S-202 FOR DETAILS.

KEY PLAN

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR
DRAWN BY: ZKS
CHECKED BY: NB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA J. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

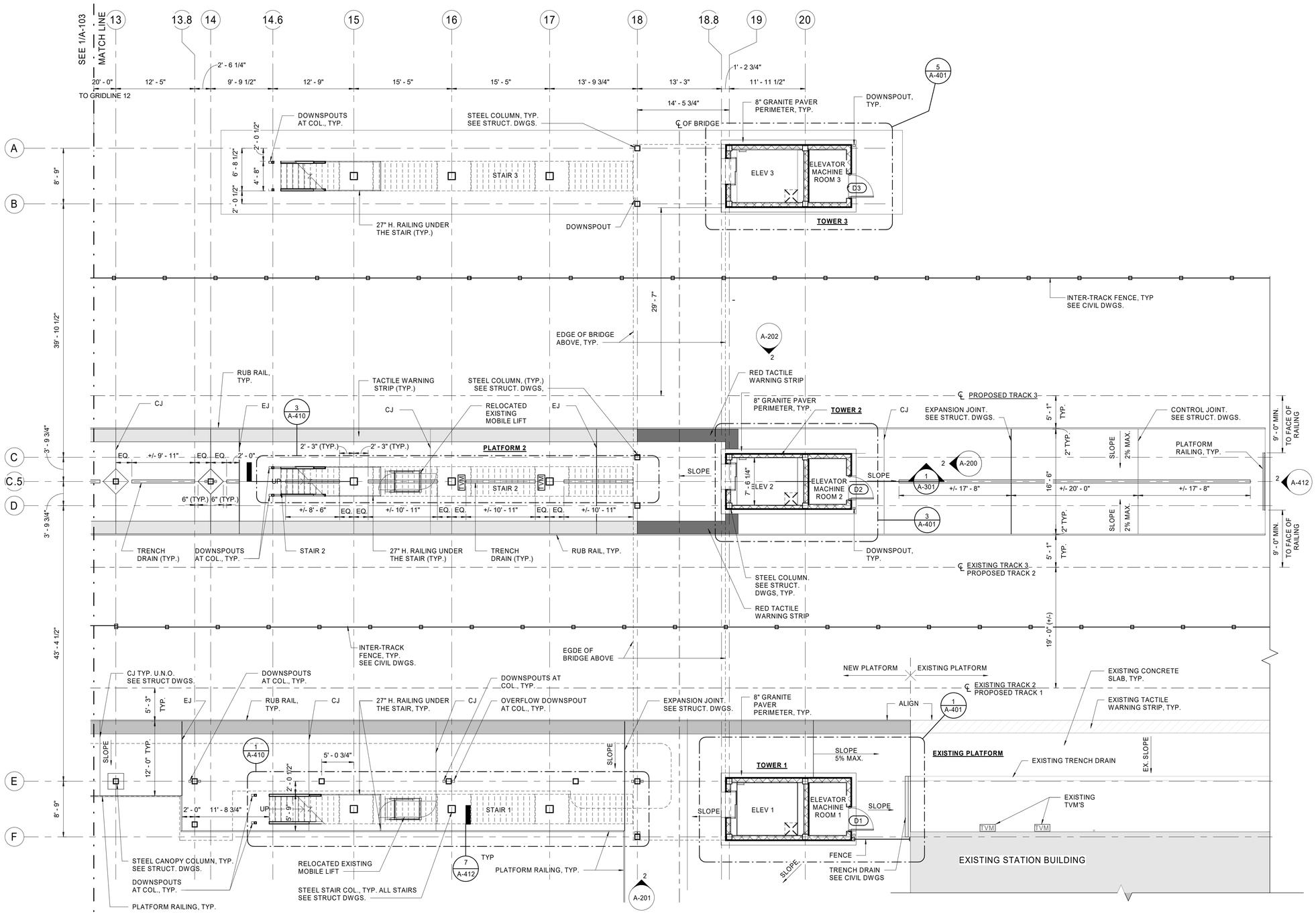
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QUANTICO STATION

PLATFORM PLAN PART C

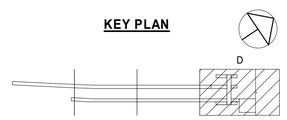
IFB NO: IFB-020-019
DRAWING NO: A-103
SCALE: 1/8" = 1'-0"
SHEET NO: 66 OF 202



NOTE:

SET TOP ELEVATION OF TRENCH DRAIN AT A 1% SLOPE FROM LOW SIDE ELEVATION AT EDGE OF CONCRETE PLATFORM, SLOPE NOT TO EXCEED 2%. SEE DRAWING S-201 AND S-202 FOR DETAILS.

KEY PLAN



INVITATION FOR BID
NOT FOR CONSTRUCTION

PLATFORM PLAN PART D

1 A-104 — 1/8" = 1'-0" (0, 4', 8', 16')

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR
DRAWN BY: ZKS
CHECKED BY: NB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA — Laura K. Jeffords — Lic. No. 401017539 — 6/10/20 — ARCHITECT

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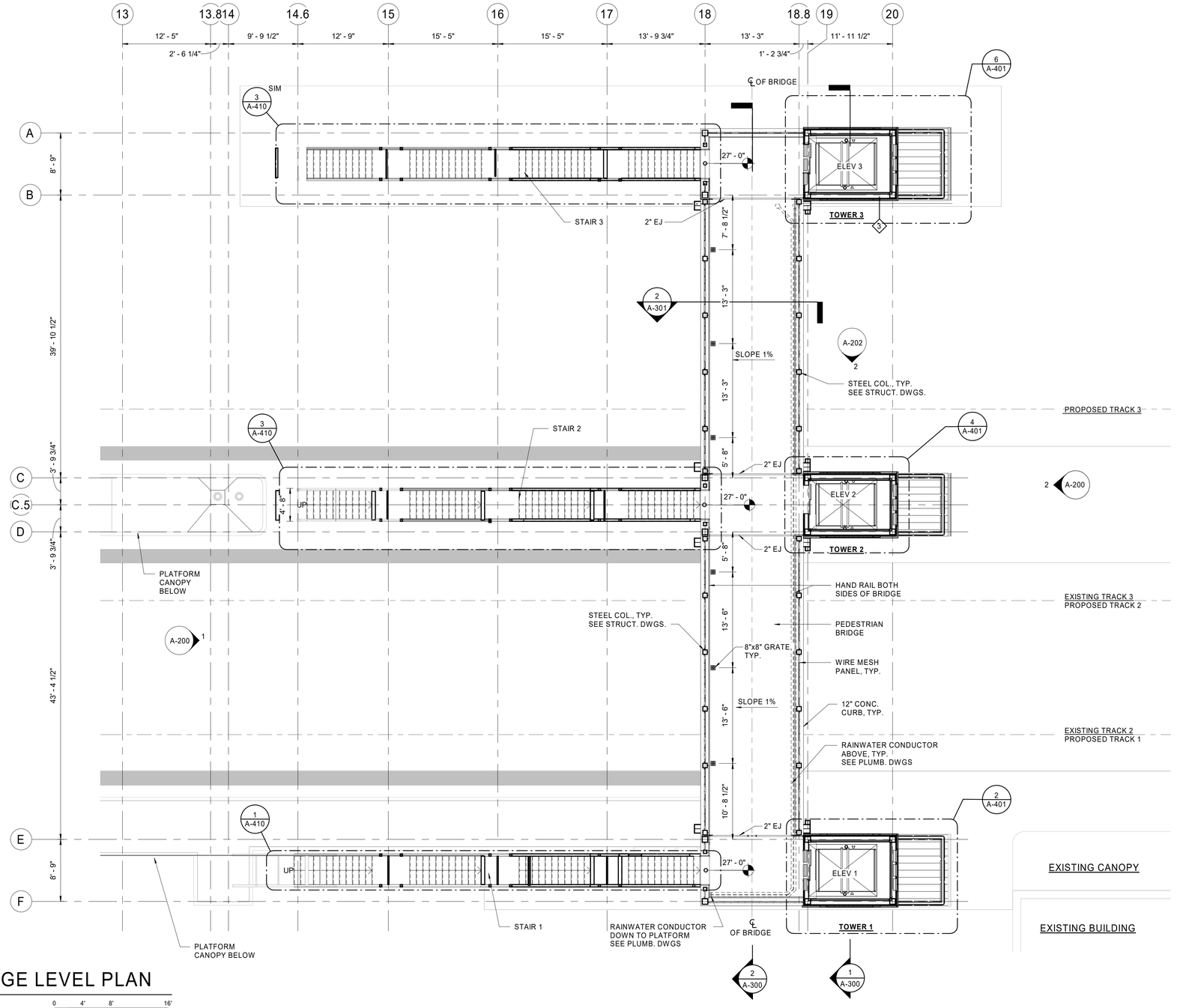
QUANTICO STATION

PLATFORM PLAN PART D

IFB NO: IFB-020-019
DRAWING NO: A-104
SCALE: 1/8" = 1'-0"
SHEET NO: 67 OF 202

NOTE:

SEE S-306 FOR DETAILS OF FLOOR DRAIN

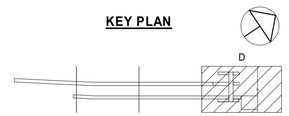


1 A-105 BRIDGE LEVEL PLAN

1/8" = 1'-0"

0 4' 8' 16'

KEY PLAN



INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR
DRAWN BY: GMJ
CHECKED BY: NB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA J. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

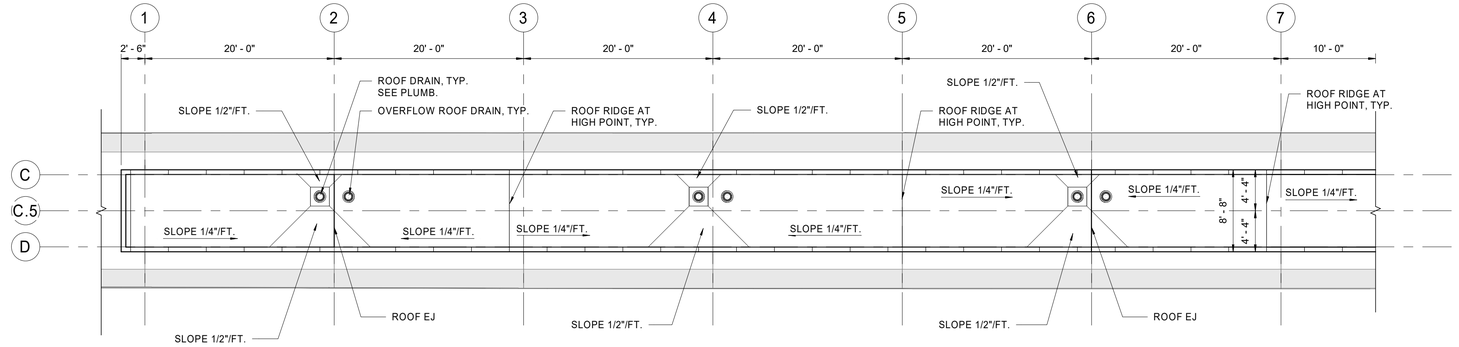
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QUANTICO STATION

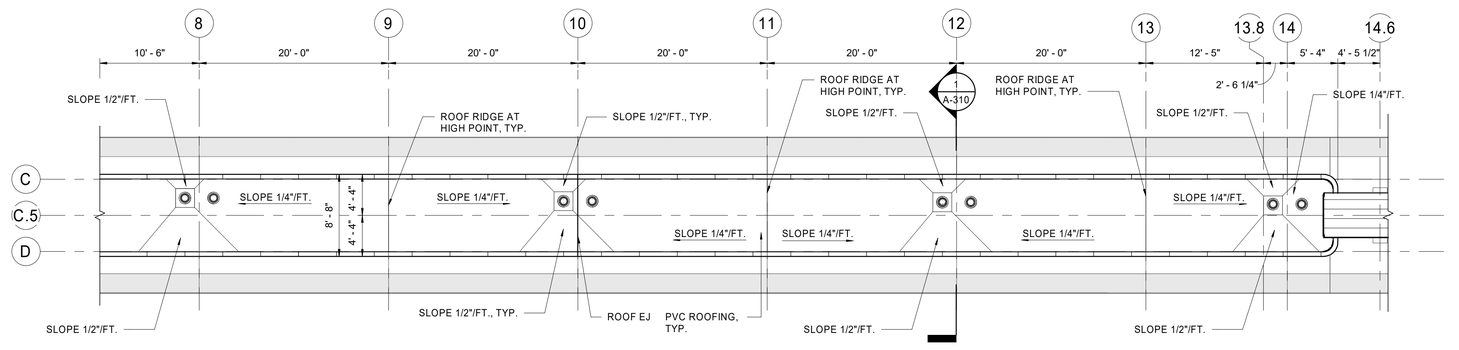
BRIDGE LEVEL PLAN

IFB NO: IFB-020-019
DRAWING NO: A-105
SCALE: 1/8" = 1'-0"
SHEET NO: 68 OF 202



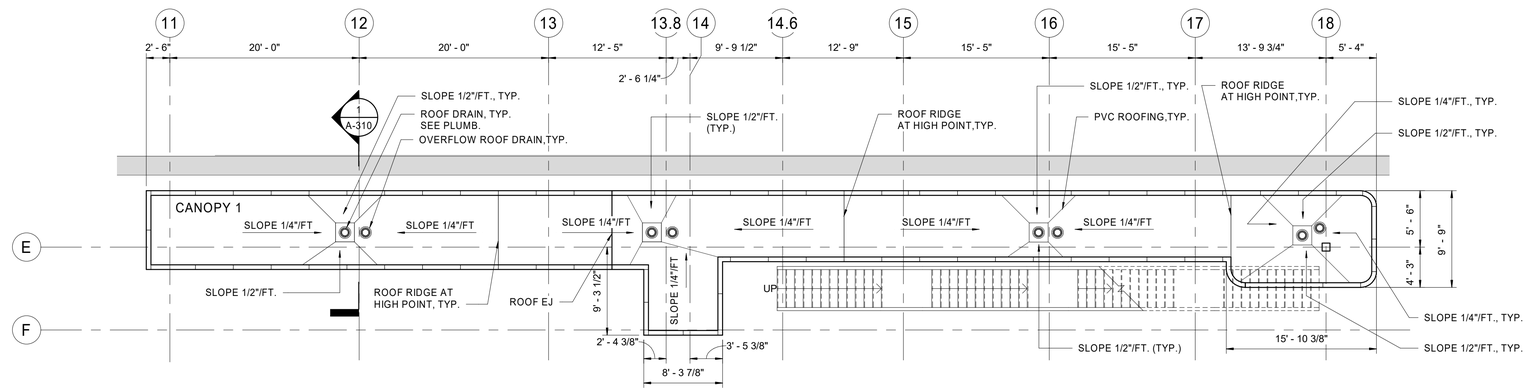
1 A-110 PLATFORM 2 ROOF PLAN - PART B & C

1/8" = 1'-0"



2 A-110 PLATFORM 2 ROOF PLAN - PART C & D

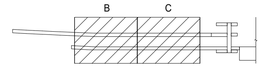
1/8" = 1'-0"



3 A-110 PLATFORM 1 ROOF PLAN

1/8" = 1'-0"

KEY PLAN



INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR
DRAWN BY: ZKS
CHECKED BY: NB
DATE: 06/10/2020

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Lic. No. 401017539
6/10/20
ARCHITECT

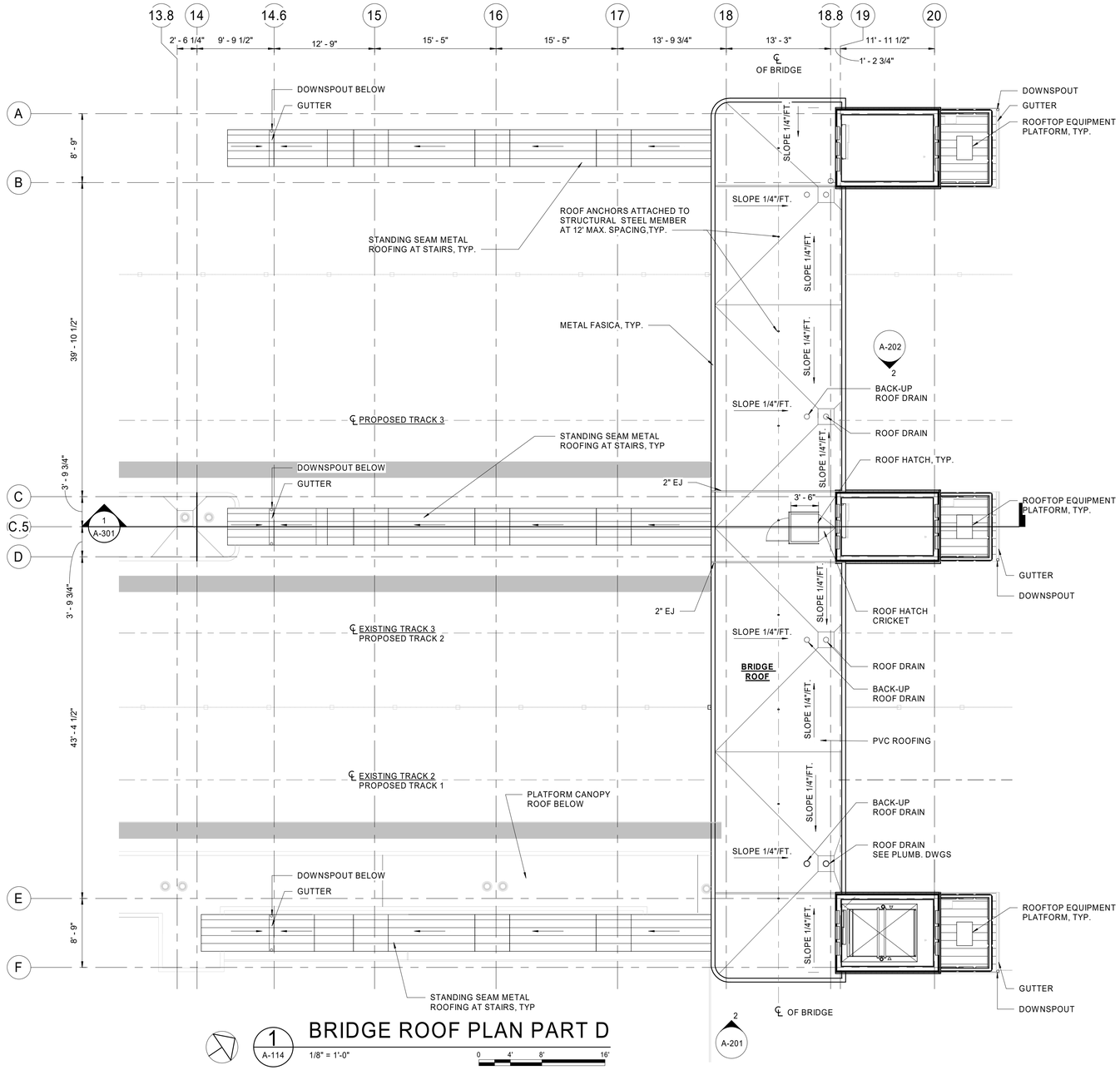
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Fairfax, VA 22031

QUANTICO STATION

PLATFORM CANOPY ROOF PLAN

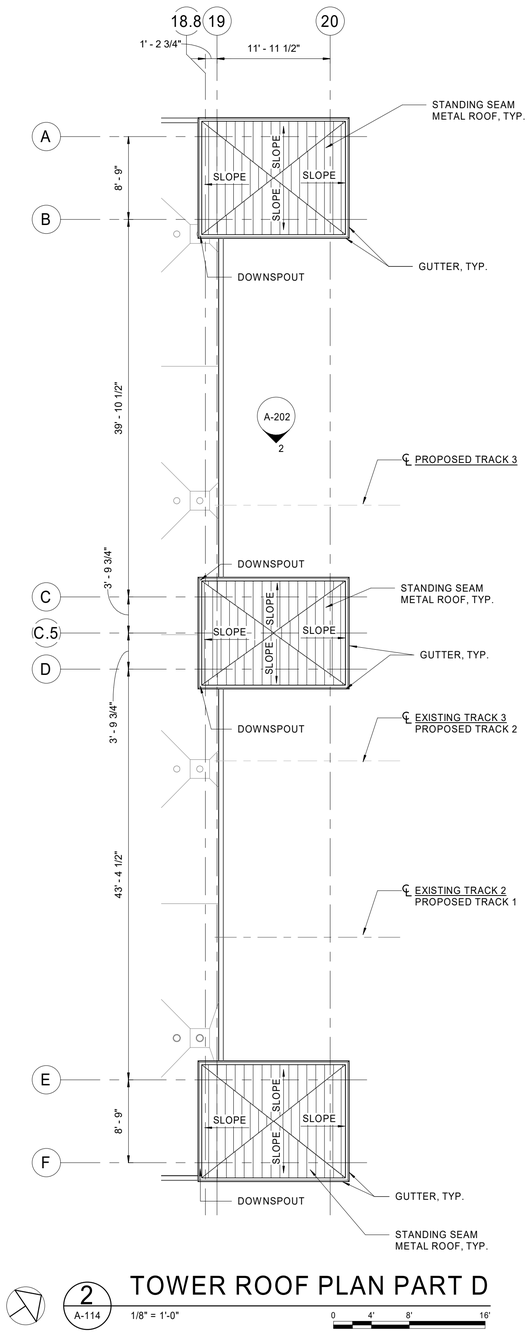
IFB NO: IFB-020-019
DRAWING NO: A-110
SCALE: 1/8" = 1'-0"
SHEET NO: 69 OF 202



1 A-114 BRIDGE ROOF PLAN PART D

1/8" = 1'-0"

0 4' 8' 16'



2 A-114 TOWER ROOF PLAN PART D

1/8" = 1'-0"

0 4' 8' 16'

KEY PLAN



INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR
DRAWN BY: ZKS
CHECKED BY: NB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
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Lic. No. 401017539
6/10/20
ARCHITECT

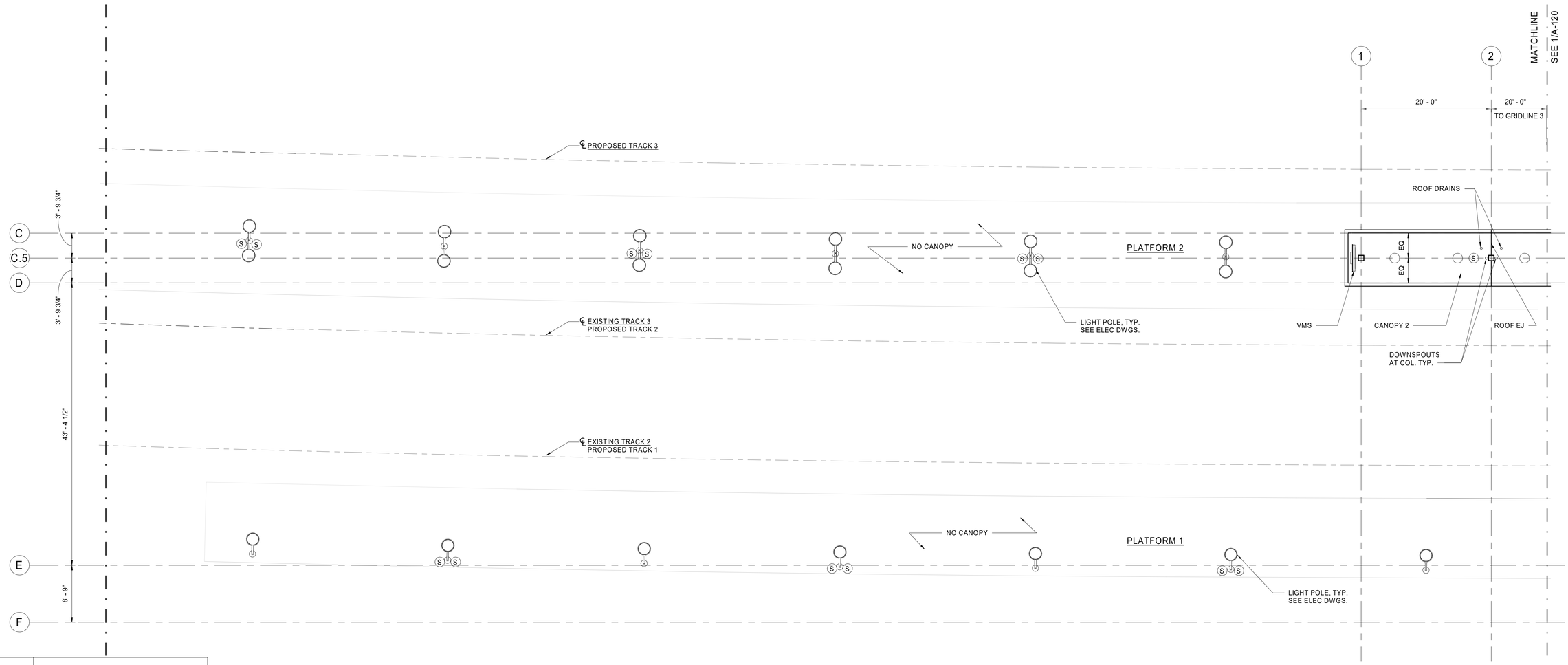
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QUANTICO STATION

BRIDGE AND TOWER ROOF PLANS PART D

IFB NO: IFB-020-019
DRAWING NO: A-114
SCALE: 1/8" = 1'-0"
SHEET NO: 70 OF 202



SYMBOLS:	DESCRIPTION
	LIGHT POLE - TYPE P1
	LIGHT POLE - TYPE P2
	FLUORESCENT LIGHTING FIXTURE MOUNTING PER FIXTURE SCHEDULE, UNLESS OTHERWISE NOTED.
	DOWNLIGHT
	EXIT SIGN
S	SPEAKER WITH MOUTING BRACKET.
	SECURITY CAMERA.
T V M	TICKET VENDING MACHINE - BY OTHERS. PROVIDE WIRING AND CONDUIT AS SHOWN ON PLAN
V M S	VIDEO MESSAGING SYSTEM MONITOR WITH MOUNTING BRACKET AND COOLER. PROVIDE WIRING AND CONDUIT AS SHOWN ON PLAN.

NOTE:

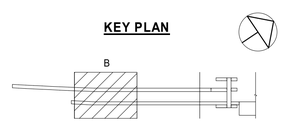
MEP/DATA/SECURITY DEVICES SHOWN ON PLAN IS FOR REFERENCE/COORDINATION ONLY. SEE RESPECTIVE DISCIPLINE FOR DETAILED INFORMATION

1 A-121 REFLECTED CEILING PLAN - GROUND LEVEL PART B

1/8" = 1'-0"

0 4' 8' 16'

KEY PLAN



INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR
DRAWN BY: ZKS
CHECKED BY: NB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA J. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

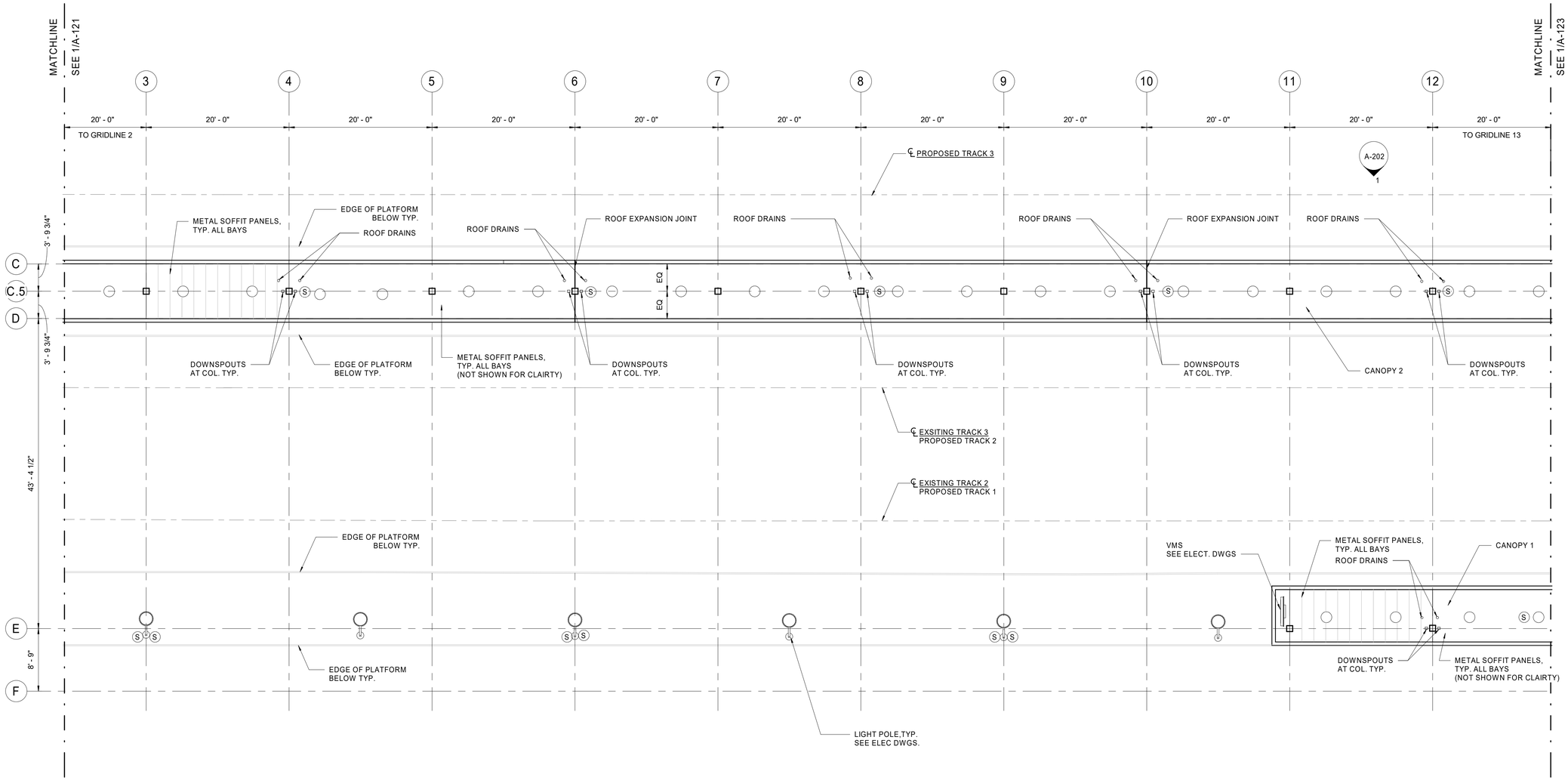
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QUANTICO STATION

PLATFORM AND CANOPY REFLECTED CEILING PLAN PART B

IFB NO: IFB-020-019
DRAWING NO: A-121
SCALE: 1/8" = 1'-0"
SHEET NO: 71 OF 202



REFLECTED CEILING PLAN - GROUND LEVEL PART C

1 / A-122 — 1/8" = 1'-0"

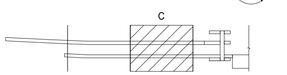
0 4' 8' 16'

SYMBOLS:	DESCRIPTION
	LIGHT POLE - TYPE P1
	LIGHT POLE - TYPE P2
	FLUORESCENT LIGHTING FIXTURE MOUNTING PER FIXTURE SCHEDULE, UNLESS OTHERWISE NOTED.
	DOWNLIGHT
	EXIT SIGN
S	SPEAKER WITH MOUTING BRACKET.
	SECURITY CAMERA.
T V M	TICKET VENDING MACHINE - BY OTHERS. PROVIDE WIRING AND CONDUIT AS SHOWN ON PLAN
V M S	VIDEO MESSAGING SYSTEM MONITOR WITH MOUNTING BRACKET AND COOLER. PROVIDE WIRING AND CONDUIT AS SHOWN ON PLAN.

NOTE:

MEP/DATA/SECURITY DEVICES SHOWN ON PLAN IS FOR REFERENCE/COORDINATION ONLY. SEE RESPECTIVE DISCIPLINE FOR DETAILED INFORMATION

KEY PLAN



INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR
DRAWN BY: GMJ
CHECKED BY: NB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA L. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

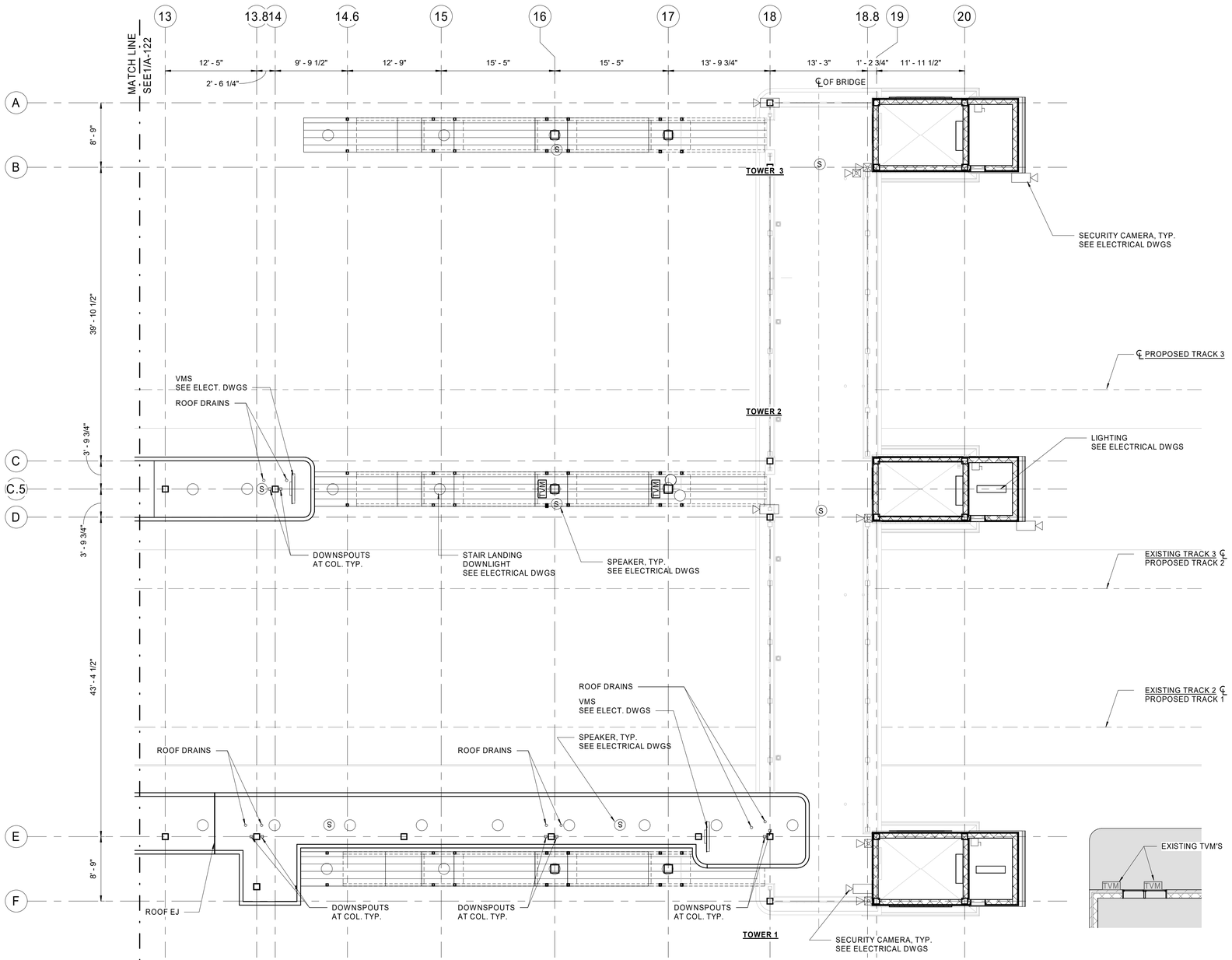
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QUANTICO STATION

PLATFORM AND CANOPY
REFLECTED CEILING PLAN PART C

IFB NO: IFB-020-019
DRAWING NO: A-122
SCALE: 1/8" = 1'-0"
SHEET NO: 72 OF 202



SYMBOLS:	DESCRIPTION
	LIGHT POLE - TYPE P1
	LIGHT POLE - TYPE P2
	FLUORESCENT LIGHTING FIXTURE MOUNTING PER FIXTURE SCHEDULE, UNLESS OTHERWISE NOTED.
	DOWNLIGHT
	EXIT SIGN
S	SPEAKER WITH MOUTING BRACKET.
	SECURITY CAMERA.
TVM	TICKET VENDING MACHINE - BY OTHERS. PROVIDE WIRING AND CONDUIT AS SHOWN ON PLAN
VMS	VIDEO MESSAGING SYSTEM MONITOR WITH MOUNTING BRACKET AND COOLER. PROVIDE WIRING AND CONDUIT AS SHOWN ON PLAN.

NOTE:

MEP/DATA/SECURITY DEVICES SHOWN ON PLAN IS FOR REFERENCE/COORDINATION ONLY. SEE RESPECTIVE DISCIPLINE FOR DETAILED INFORMATION

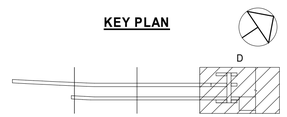
REFLECTED CEILING PLAN - GROUND LEVEL PART D

1 / A-123

1/8" = 1'-0"

0 4' 8' 16'

KEY PLAN



INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR
DRAWN BY: GMJ
CHECKED BY: NB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA J. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

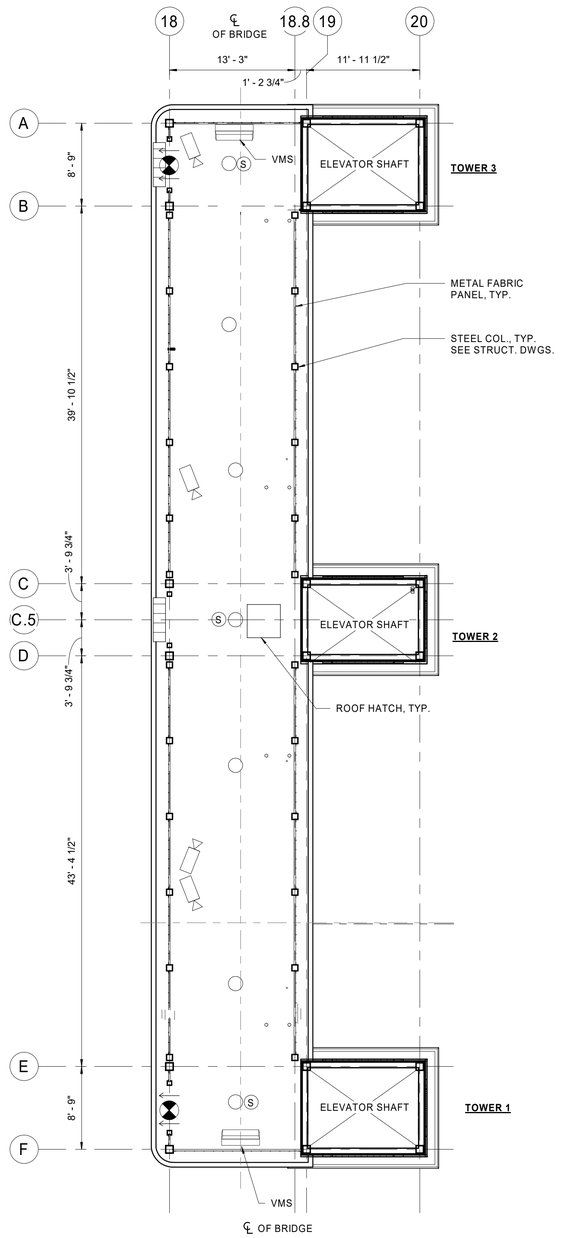
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QUANTICO STATION

PLATFORM AND CANOPY
REFLECTED CEILING PLAN PART D

IFB NO: IFB-020-019
DRAWING NO: A-123
SCALE: 1/8" = 1'-0"
SHEET NO: 73 OF 202



SYMBOLS:	DESCRIPTION
	LIGHT POLE - TYPE P1
	LIGHT POLE - TYPE P2
	FLUORESCENT LIGHTING FIXTURE MOUNTING PER FIXTURE SCHEDULE, UNLESS OTHERWISE NOTED.
	DOWNLIGHT
	EXIT SIGN
S	SPEAKER WITH MOUTING BRACKET.
	SECURITY CAMERA.
T V M	TICKET VENDING MACHINE - BY OTHERS. PROVIDE WIRING AND CONDUIT AS SHOWN ON PLAN
V M S	VIDEO MESSAGING SYSTEM MONITOR WITH MOUNTING BRACKET AND COOLER. PROVIDE WIRING AND CONDUIT AS SHOWN ON PLAN.

NOTE:

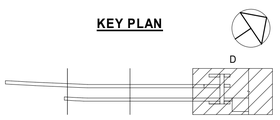
MEP/DATA/SECURITY DEVICES SHOWN ON PLAN IS FOR REFERENCE/COORDINATION ONLY. SEE RESPECTIVE DISCIPLINE FOR DETAILED INFORMATION

1 / A-124 REFLECTED CEILING PLAN - BRIDGE LEVEL

1/8" = 1'-0"

0 4' 8' 16'

KEY PLAN



INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR
DRAWN BY: GMJ
CHECKED BY: NB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA J. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

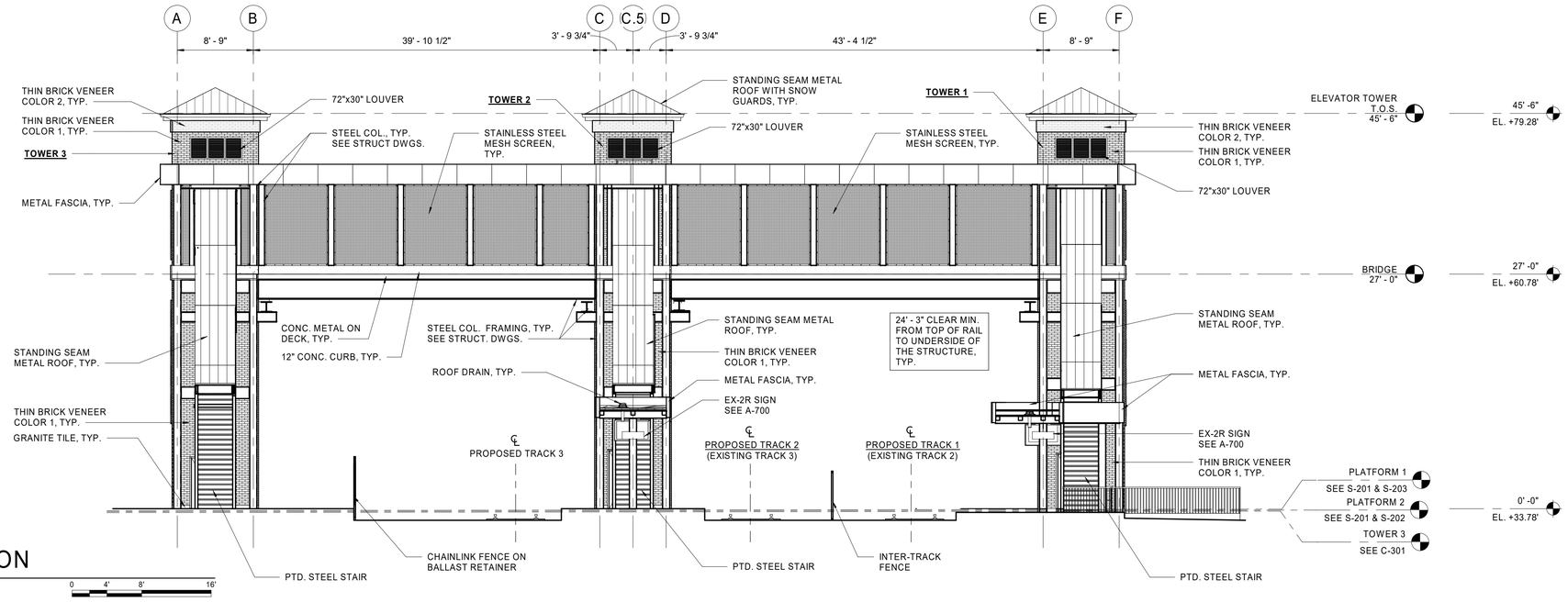
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QUANTICO STATION

REFLECTED CEILING PLAN - BRIDGE LEVEL

IFB NO: IFB-020-019
DRAWING NO: A-124
SCALE: 1/8" = 1'-0"
SHEET NO: 74 OF 202

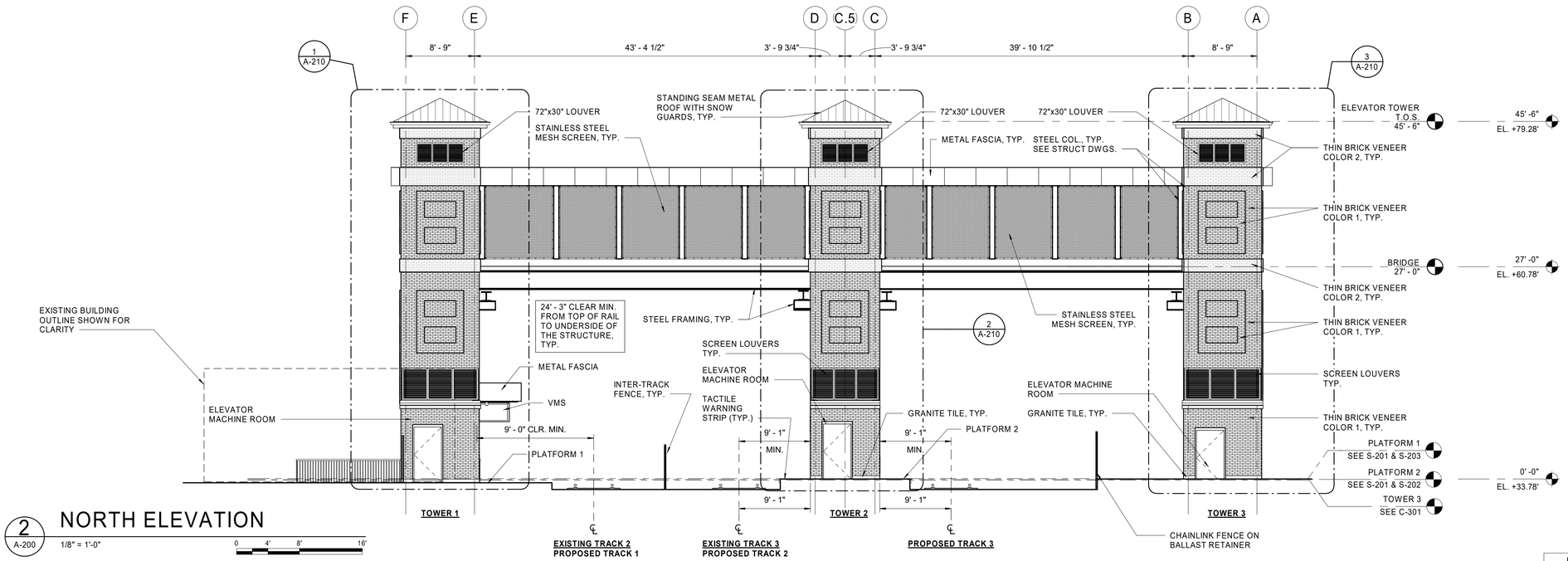


1 A-200

SOUTH ELEVATION

1/8" = 1'-0"

0 4' 8' 16'



2 A-200

NORTH ELEVATION

1/8" = 1'-0"

0 4' 8' 16'

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR
DRAWN BY: AK
CHECKED BY: NB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA J. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

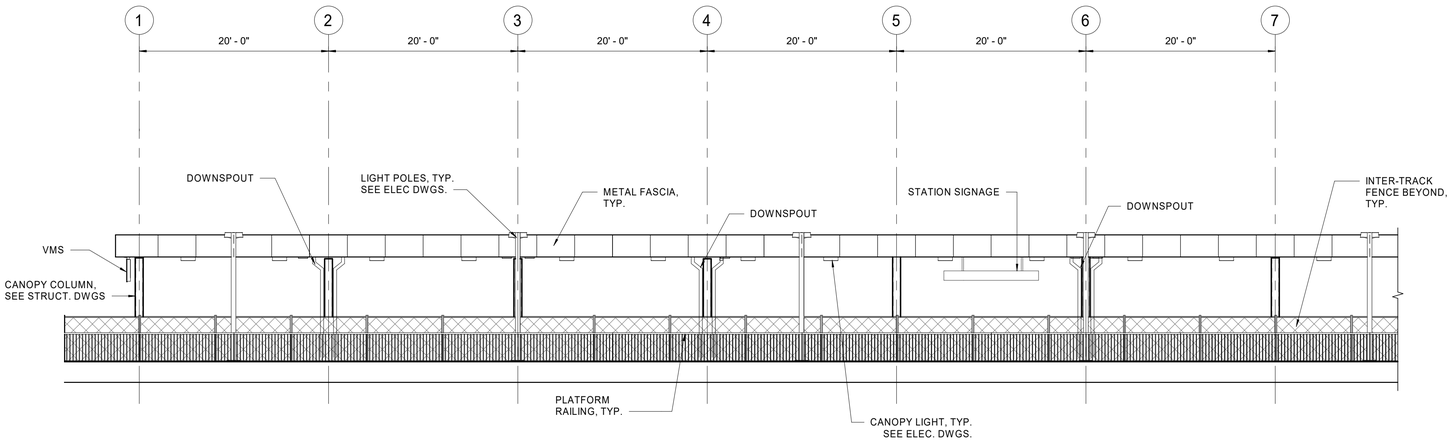
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QUANTICO STATION

EXTERIOR ELEVATIONS

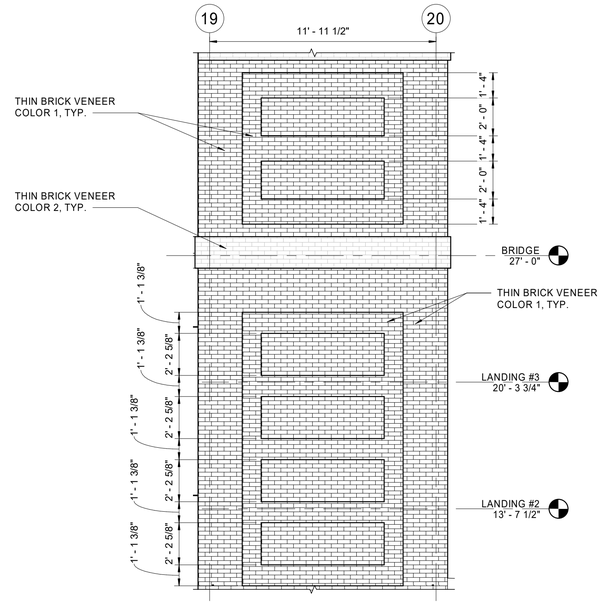
IFB NO: IFB-020-019
DRAWING NO: A-200
SCALE: 1/8" = 1'-0"
SHEET NO: 75 OF 202



1 EAST ELEVATION - PLATFORM 2

1/8" = 1'-0"

0 4' 8' 16'

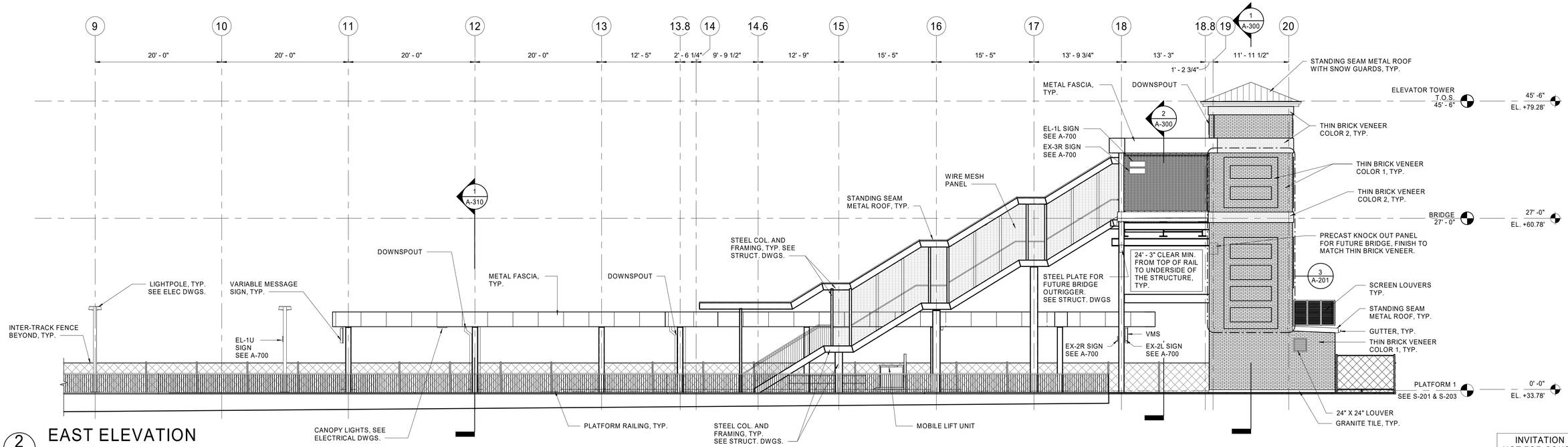


3 TYPICAL THIN BRICK RELIEF PATTERN

1/4" = 1'-0"

TYP. @ TOWER 1 & 3

0 4' 8' 16'



2 EAST ELEVATION

2 / A-201

1/8" = 1'-0"

0 4' 8' 16'

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR

DRAWN BY: AK

CHECKED BY: NB

DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA L. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

VRE

STV 100 Years
STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

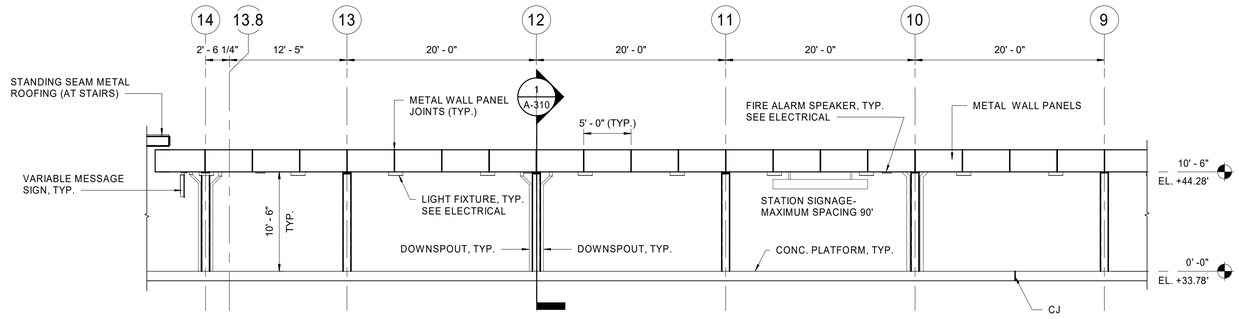
EXTERIOR ELEVATIONS TOWER 1

IFB NO: IFB-020-019

DRAWING NO: A-201

SCALE: AS INDICATED

SHEET NO: 76 OF 202

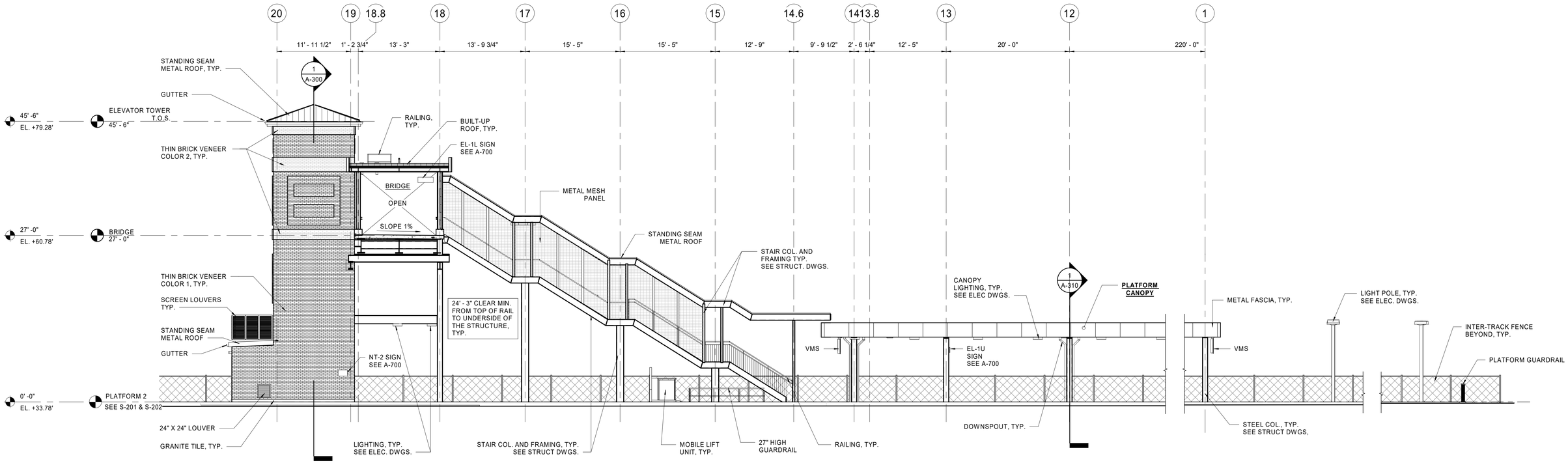


1 TYPICAL PLATFORM CANOPY ELEVATION

A-202

1/8" = 1'-0"

0 4' 8' 16'



2 ELEVATOR 2 WEST ELEVATION

A-202

1/8" = 1'-0"

0 4' 8' 16'

INVITATION FOR BID
NOT FOR CONSTRUCTION

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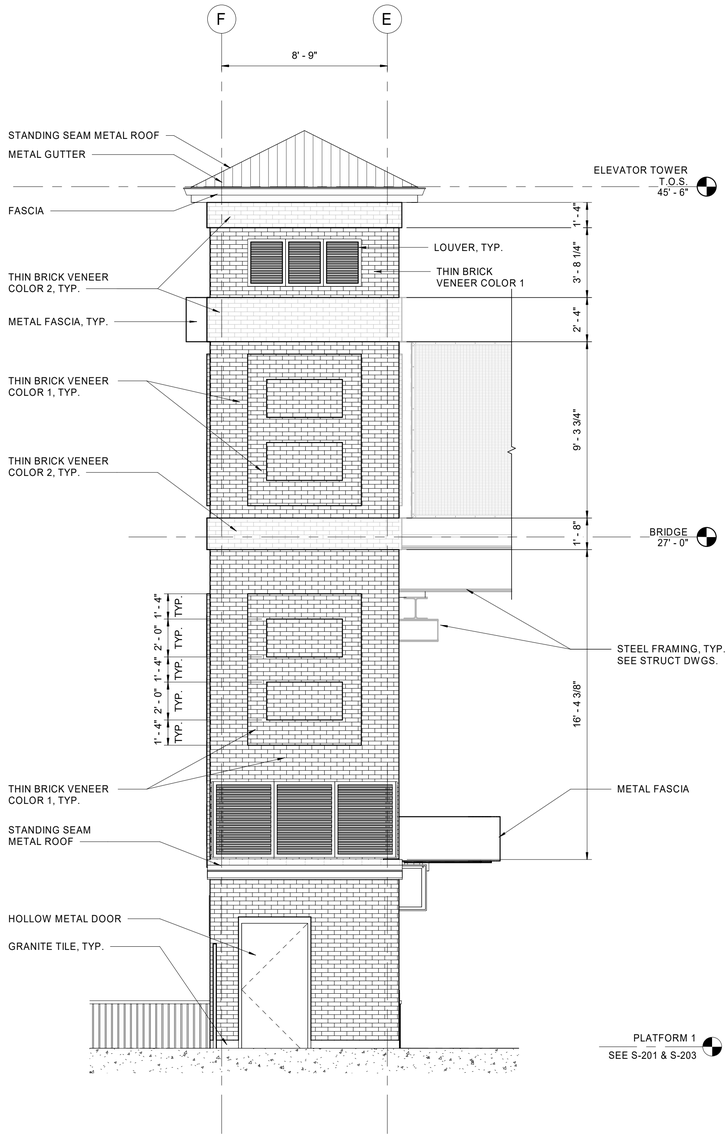
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QUANTICO STATION

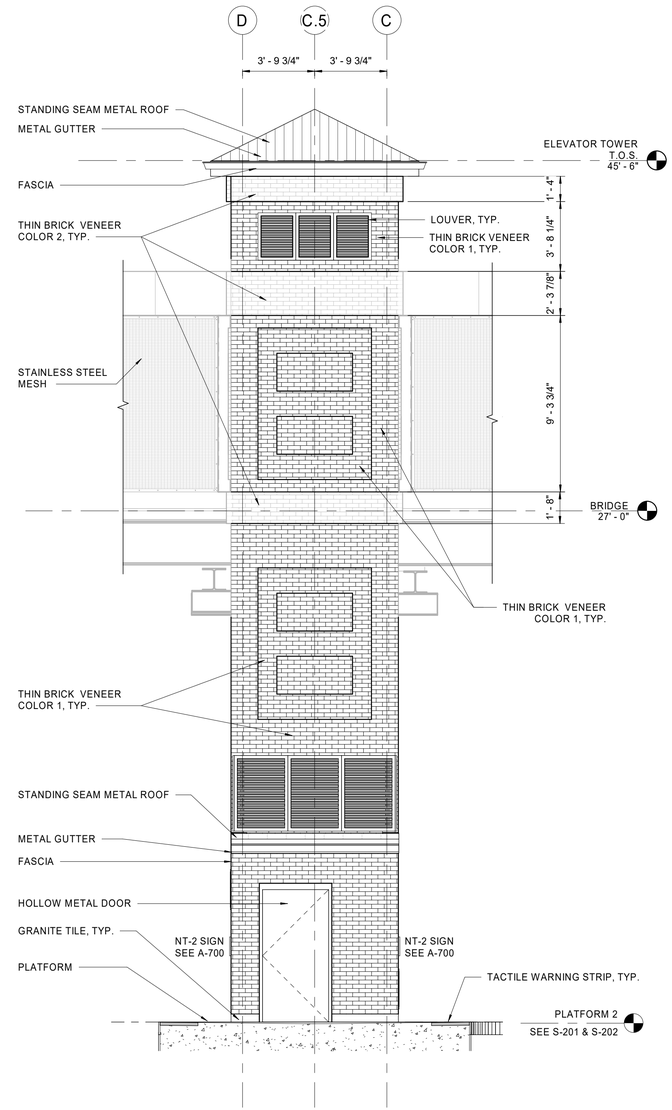
EXTERIOR ELEVATIONS TOWER 2

IFB NO: IFB-020-019
DRAWING NO: A-202
SCALE: 1/8" = 1'-0"
SHEET NO: 77 OF 202



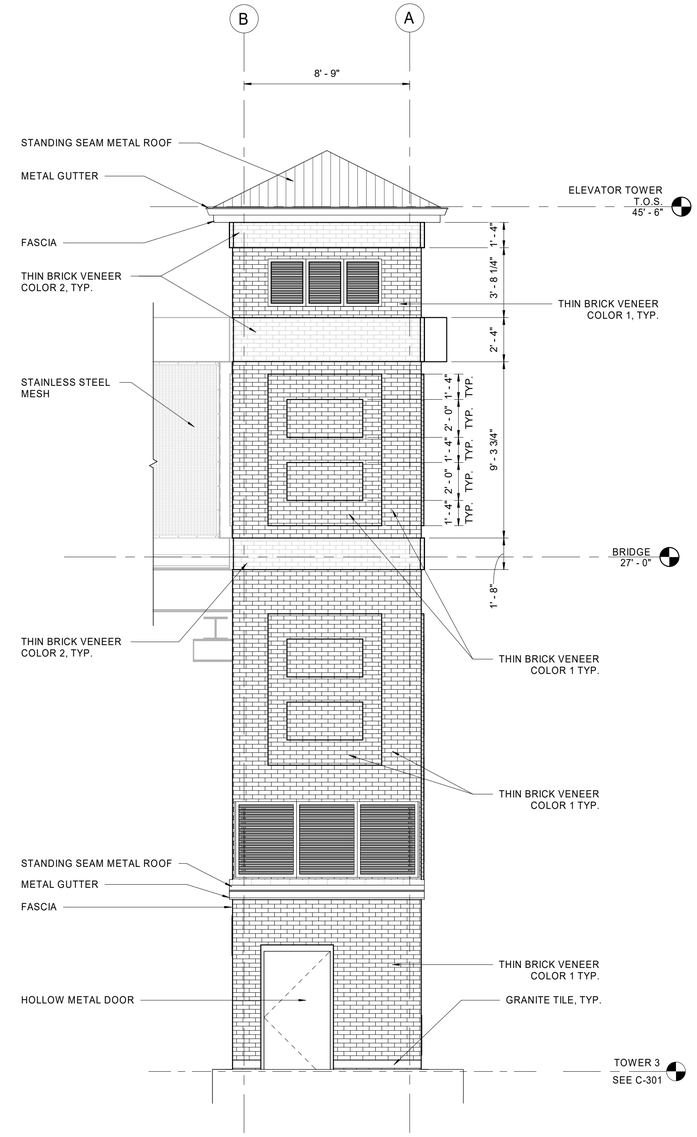
1 A-210 TOWER 1- NORTH

1/4" = 1'-0" 0 2' 4' 8'



2 A-210 TOWER 2 - NORTH

1/4" = 1'-0" 0 2' 4' 8'



3 A-210 TOWER 3 - NORTH

1/4" = 1'-0" 0 2' 4' 8'

INVITATION FOR BID
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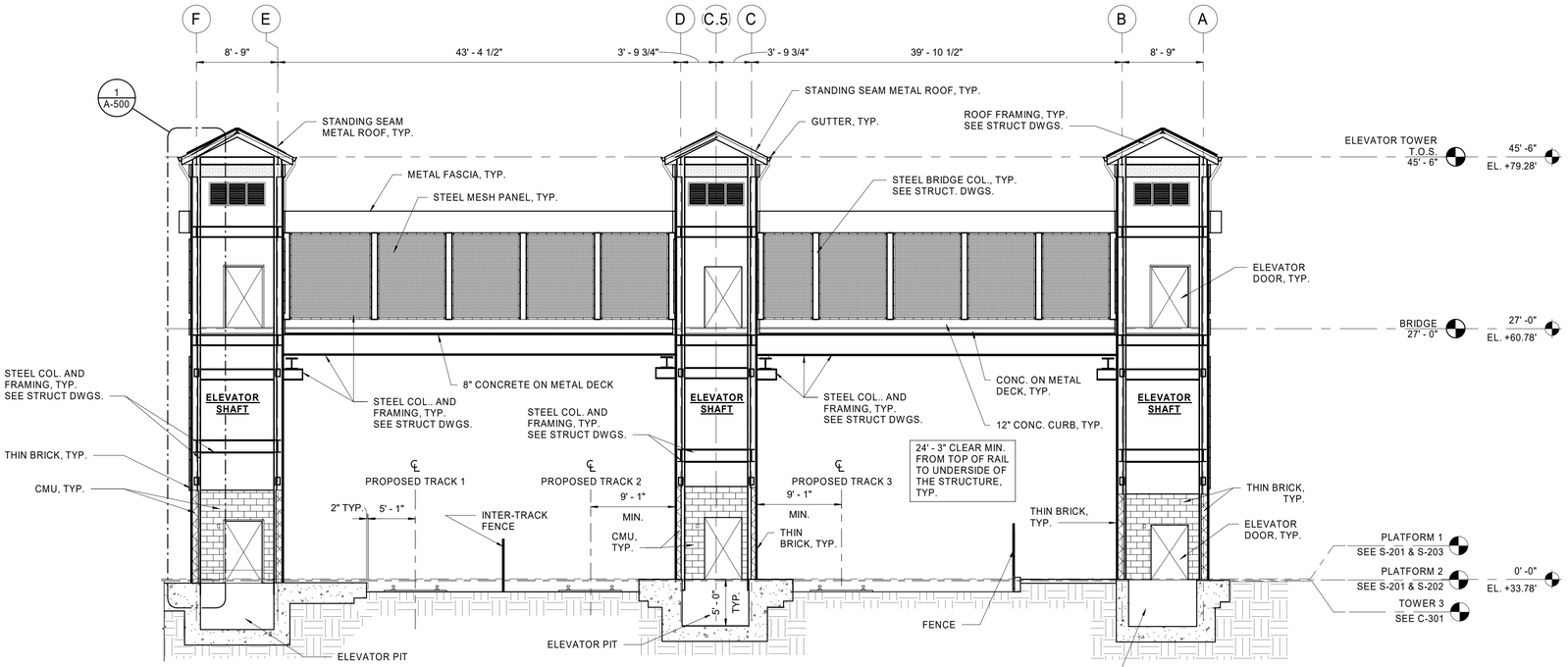
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QUANTICO STATION

ENLARGED EXTERIOR ELEVATIONS - NORTH

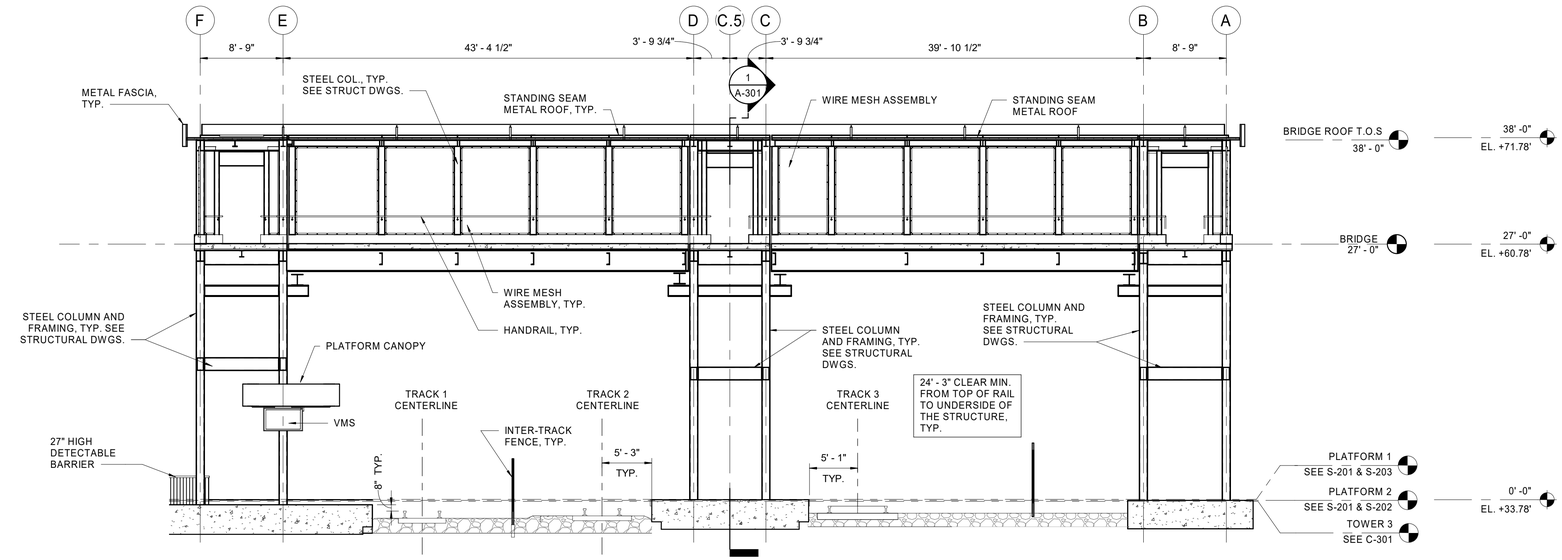
IFB NO: IFB-020-019
DRAWING NO: A-210
SCALE: 1/4" = 1'-0"
SHEET NO: 78 OF 202



1 A-300 SECTION AT ELEVATOR TOWERS

1/8" = 1'-0"

0 4' 8' 16'



2 A-300 SECTION AT BRIDGE

1/8" = 1'-0"

0 4' 8' 16'

INVITATION FOR BID
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DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
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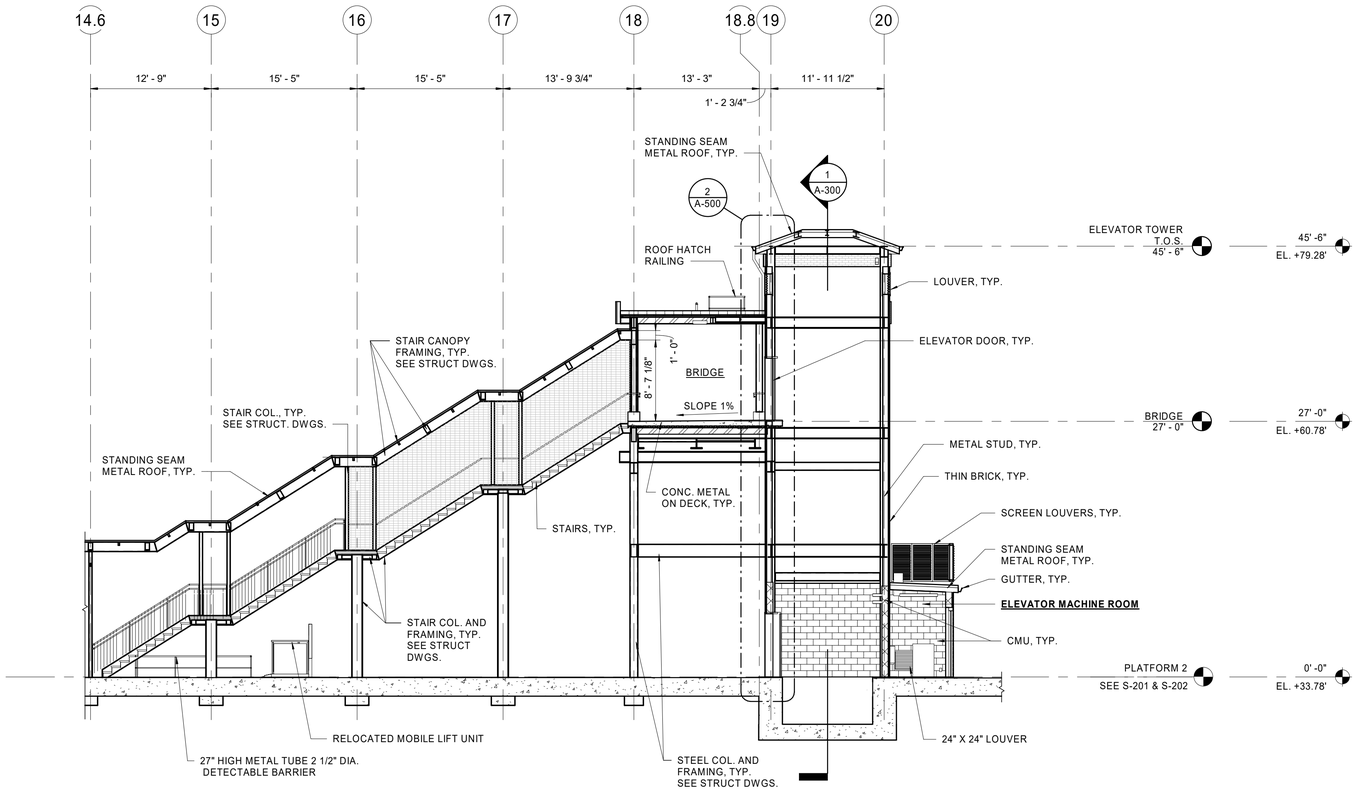
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QUANTICO STATION

BUILDING SECTIONS

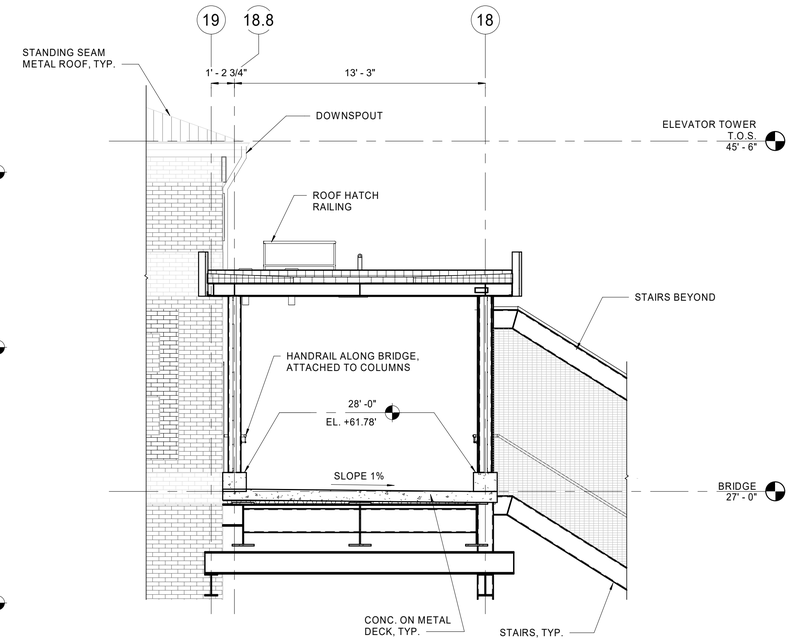
IFB NO: IFB-020-019
DRAWING NO: A-300
SCALE: 1/8" = 1'-0"
SHEET NO: 79 OF 202



1 A-301 SECTION THROUGH TOWER 2

1/8" = 1'-0"

0 4' 8' 16'



2 A-301 BRIDGE SECTION

1/4" = 1'-0"

0 2' 4' 8'

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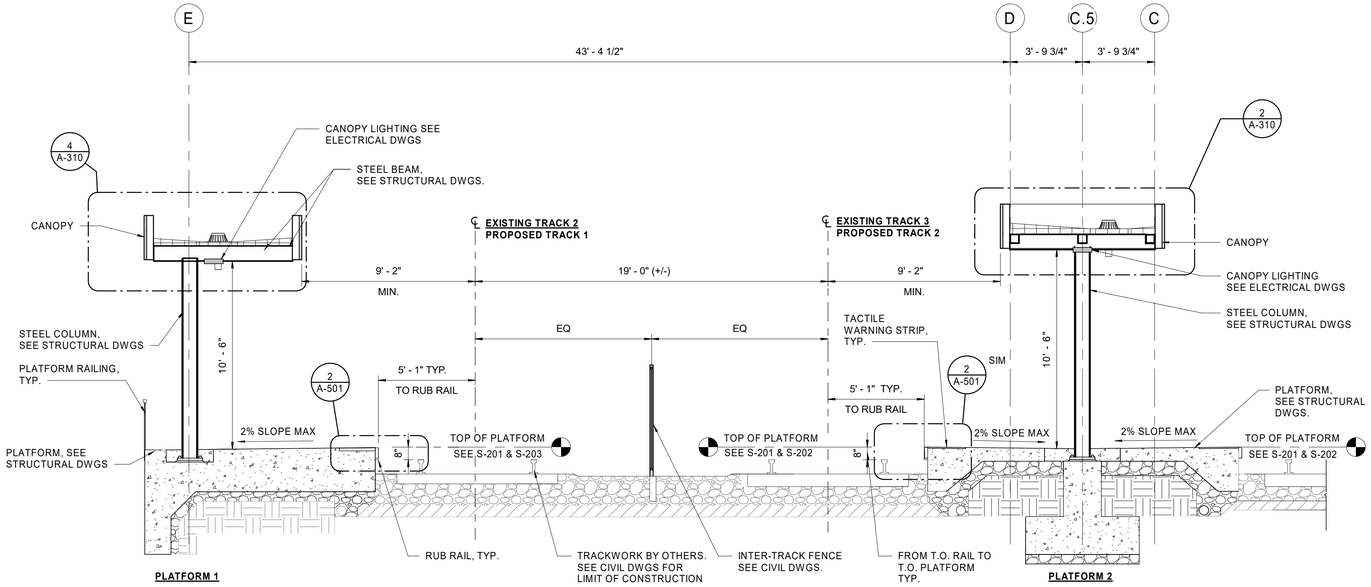
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QUANTICO STATION

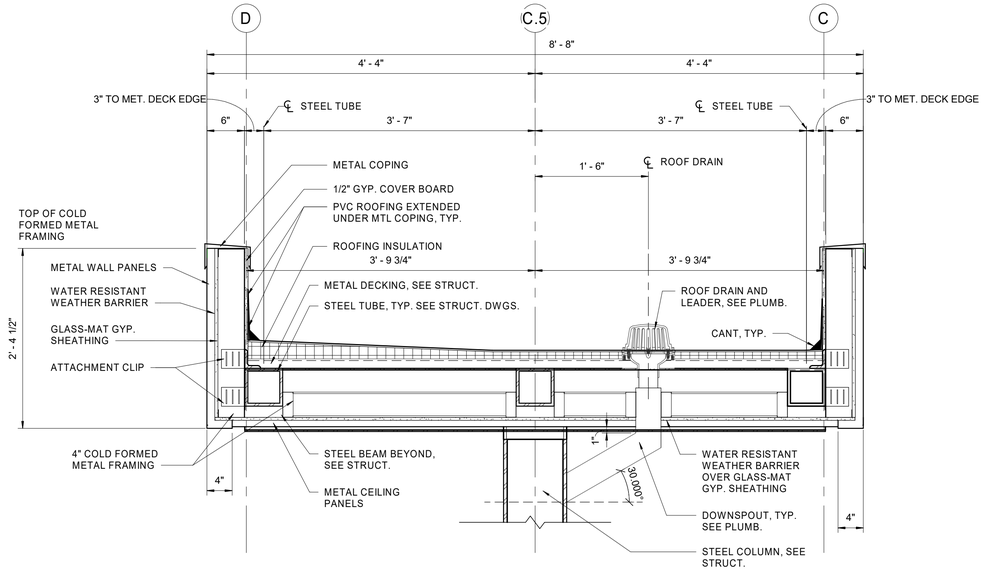
BUILDING SECTIONS

IFB NO: IFB-020-019
DRAWING NO: A-301
SCALE: AS INDICATED
SHEET NO: 80 OF 202



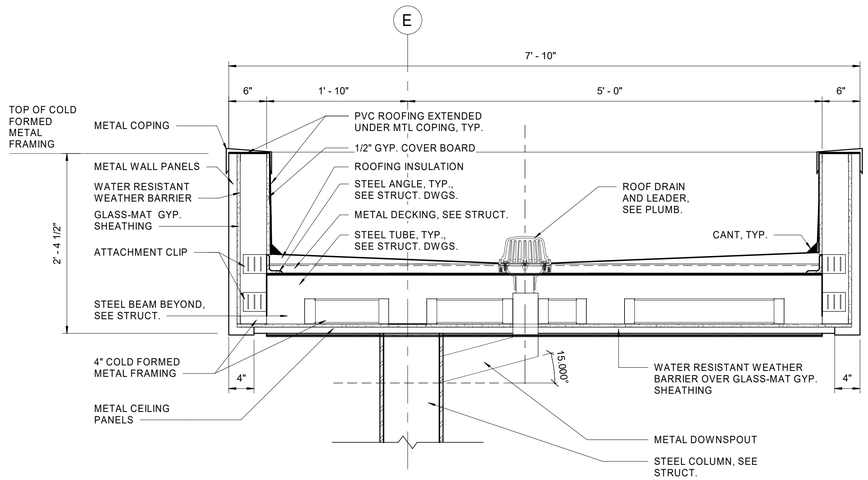
1 A-310 **CANOPY SECTION**

1/4" = 1'-0"



2 A-310 **CENTER CANOPY DETAIL**

1" = 1'-0"



4 A-310 **SIDE CANOPY DETAIL**

1" = 1'-0"

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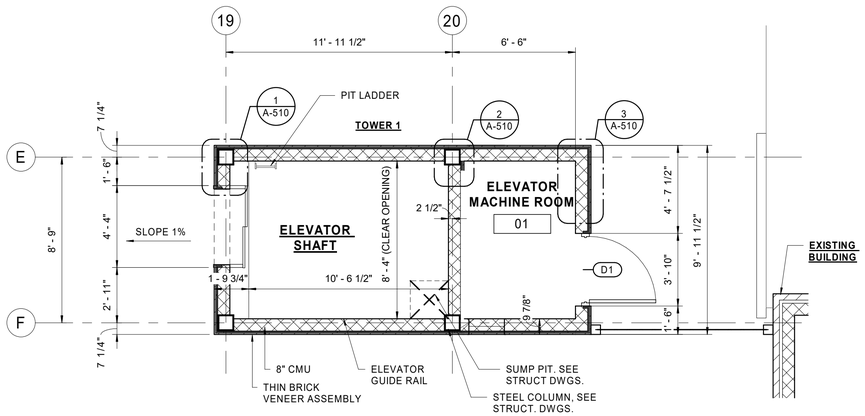
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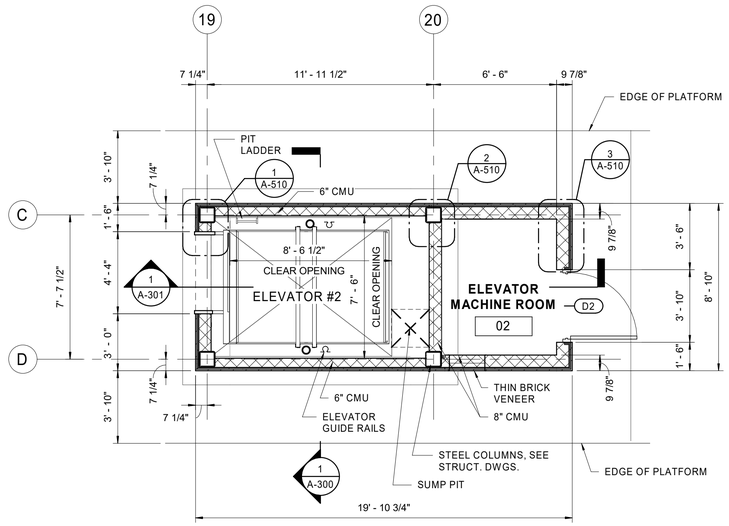
CANOPY SECTION AND DETAILS

IFB NO: IFB-020-019
DRAWING NO: A-310
SCALE: AS INDICATED
SHEET NO: 81 OF 202



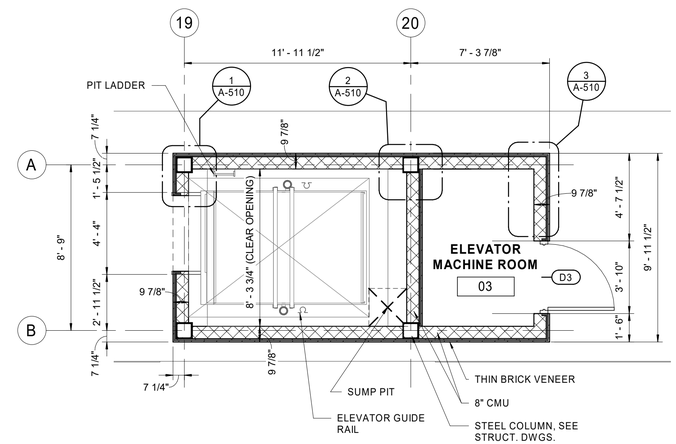
1 A-401 TOWER 1 & 3, GROUND LEVEL PLAN

1/4" = 1'-0"



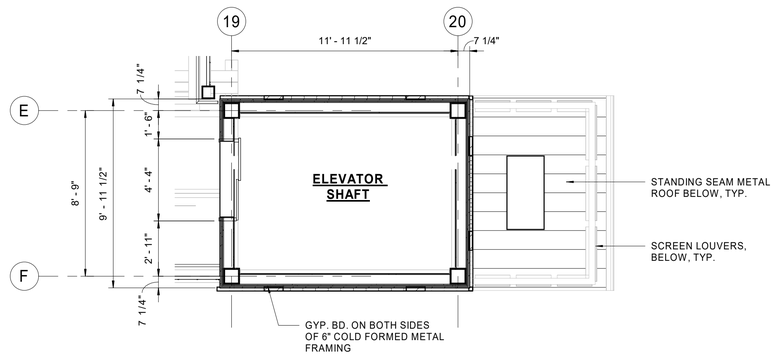
3 A-401 TOWER 2, GROUND LEVEL PLAN

1/4" = 1'-0"



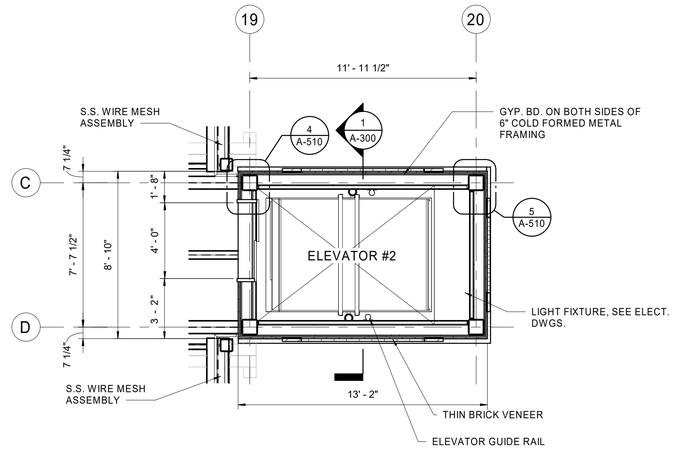
5 A-401 TOWER 3, GROUND LEVEL PLAN

1/4" = 1'-0"



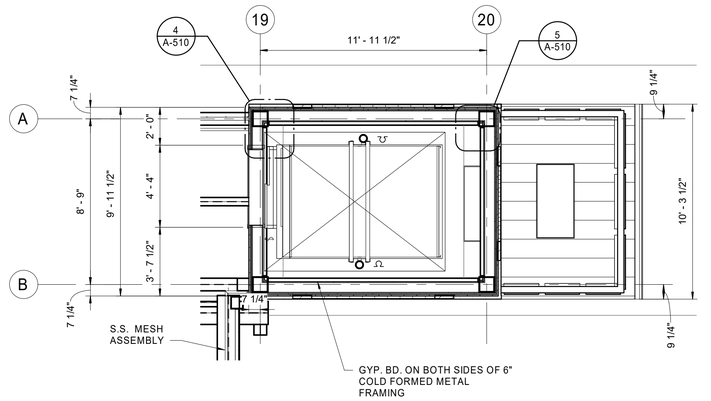
2 A-401 TOWER 1 & 3, BRIDGE LEVEL PLAN

1/4" = 1'-0"



4 A-401 TOWER 2, BRIDGE LEVEL PLAN

1/4" = 1'-0"



6 A-401 TOWER 3, BRIDGE LEVEL PLAN

1/4" = 1'-0"

INVITATION FOR BID
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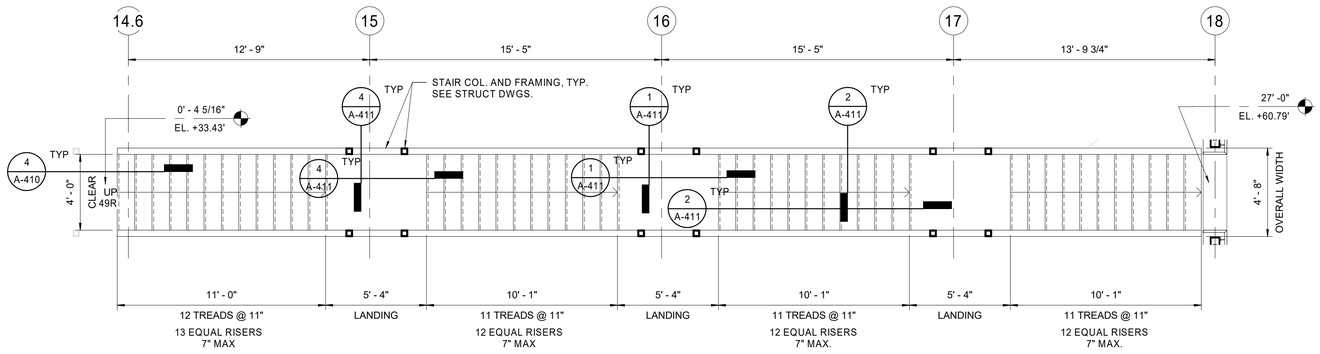
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QUANTICO STATION

ENLARGED FLOOR PLANS TOWERS 1, 2 & 3

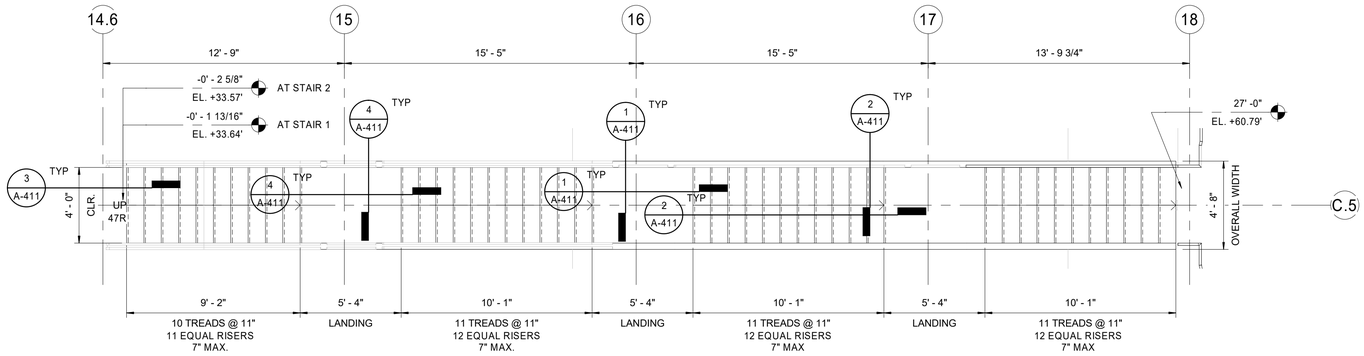
IFB NO: IFB-020-019
DRAWING NO: A-401
SCALE: 1/4" = 1'-0"
SHEET NO: 82 OF 202



1 A-410 STAIR 1 ENLARGED PLAN

1/4" = 1'-0"

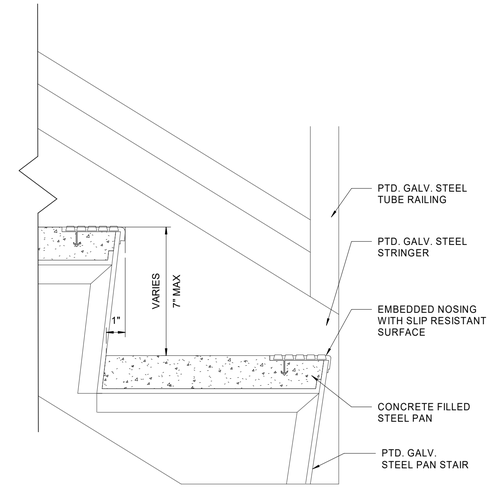
0 2' 4' 8'



3 A-410 STAIR 2 & 3 ENLARGED PLAN

1/4" = 1'-0"

0 2' 4' 8'



2 A-410 TYPICAL STAIR TREAD DETAIL

3" = 1'-0"

0 3" 6" 9"

4 A-410 TYPICAL STAIR 1 HANDRAIL DETAIL

1" = 1'-0"

0 6" 1' 2'

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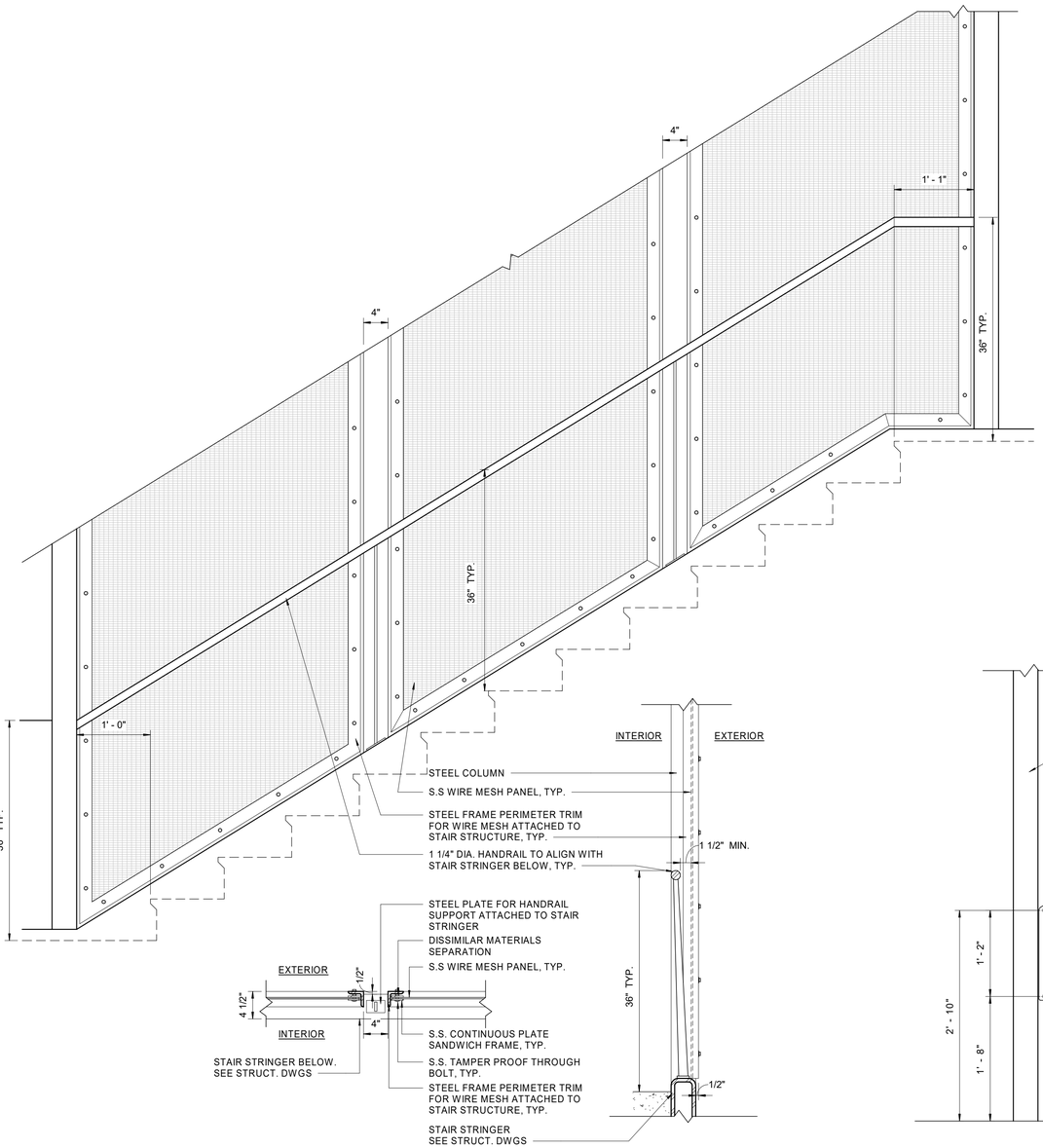
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QUANTICO STATION

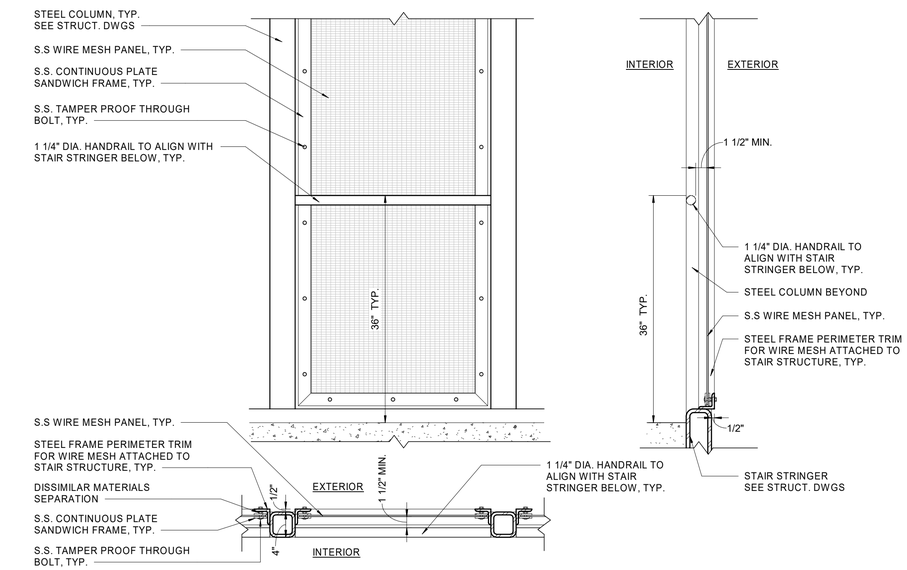
ENLARGED STAIR PLANS

IFB NO: IFB-020-019
DRAWING NO: A-410
SCALE: AS INDICATED
SHEET NO: 83 OF 202



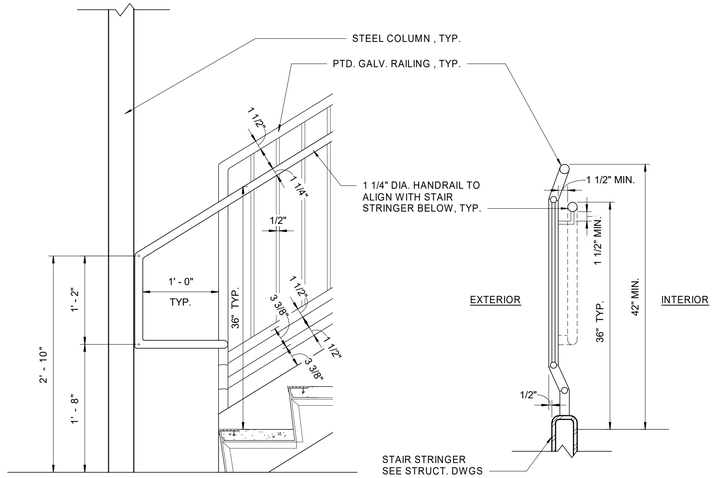
2 A-411 TYP. STAIR WIREMESH DETAIL

1" = 1'-0"



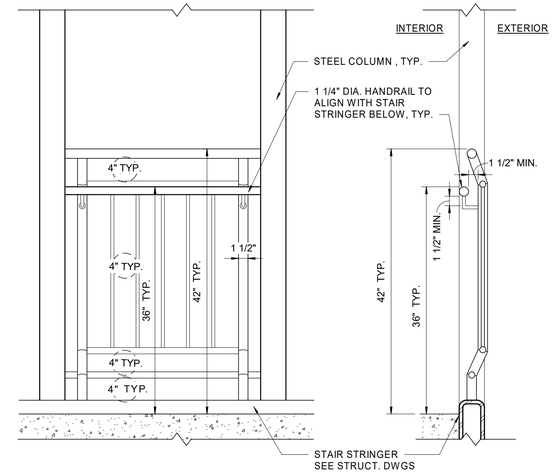
1 A-411 TYP. WIREMESH DETAIL AT STAIR LANDING

1" = 1'-0"



3 A-411 STAIR 2 & 3 HANDRAIL DETAIL

1" = 1'-0"



4 A-411 TYP. DETAIL AT STAIR LANDING

1" = 1'-0"

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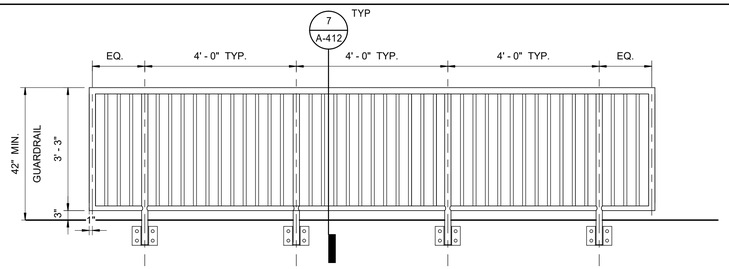
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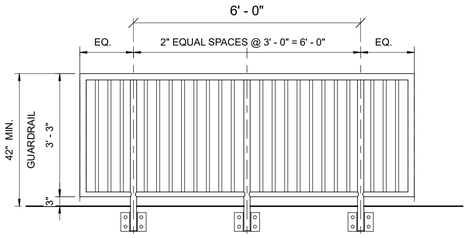
TYPICAL STAIR DETAILS

IFB NO: IFB-020-019
DRAWING NO: A-411
SCALE: 1" = 1'-0"
SHEET NO: 84 OF 202



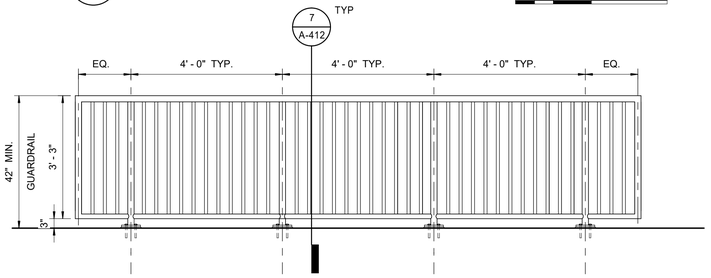
1 TYP. GUARDRAIL AT PLATFORM

A-412 1/2" = 1'-0"



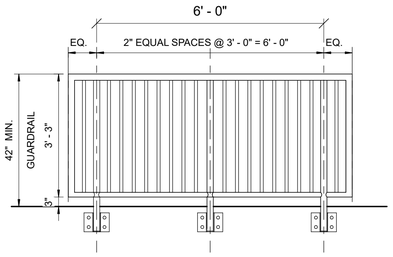
2 GUARDRAIL AT PLATFORM NORTH END

A-412 1/2" = 1'-0"



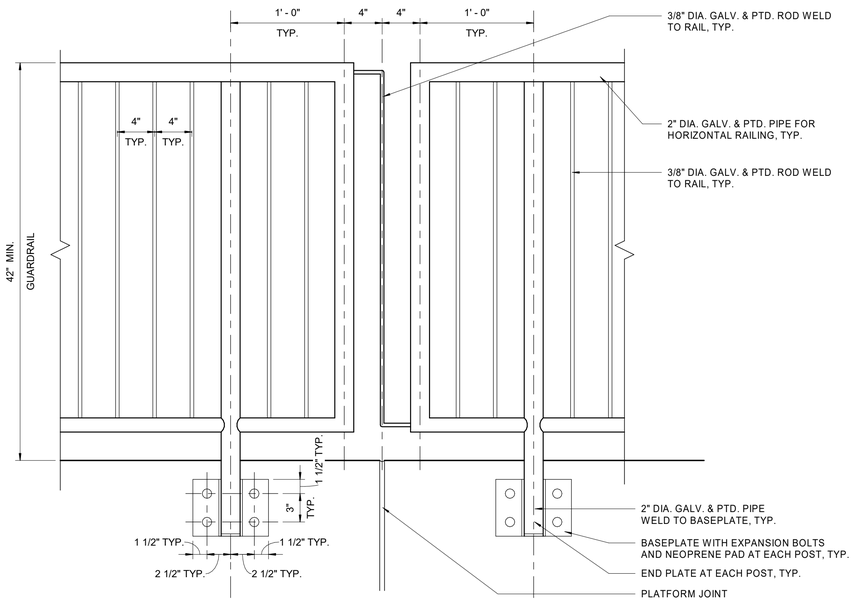
4 TYP. GUARDRAIL AT SIDEWALK

A-412 1/2" = 1'-0"



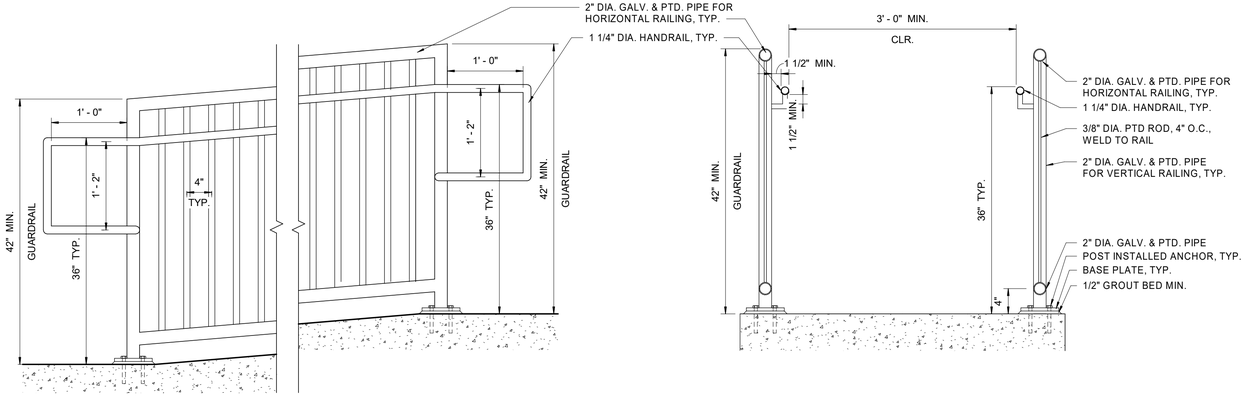
5 GUARDRAIL AT PLATFORM SOUTH END

A-412 1/2" = 1'-0"



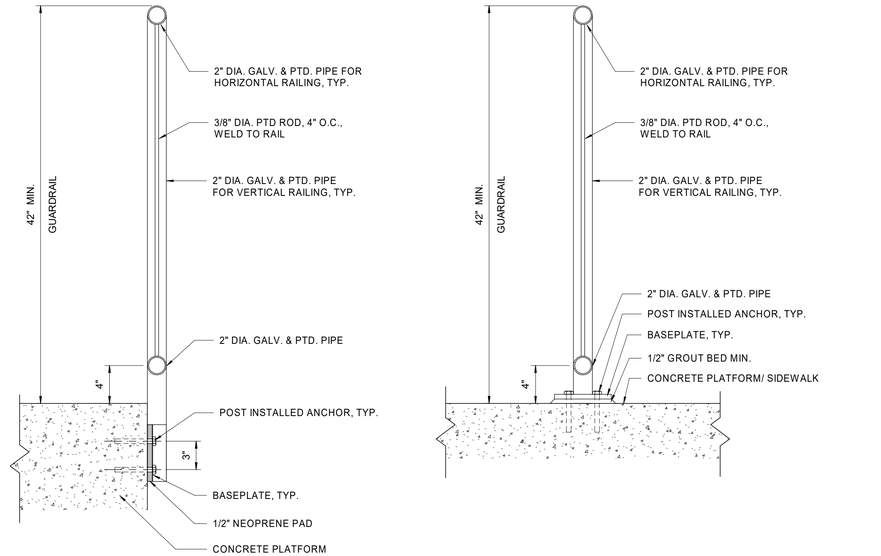
3 TYP. GUARDRAIL CONNECTION DETAIL

A-412 1 1/2" = 1'-0"



6 TYP. GUARDRAIL DETAIL AT RAMP

A-412 1" = 1'-0"



7 TYP. GUARDRAIL DETAIL

A-412 1 1/2" = 1'-0"

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COMMONWEALTH OF VIRGINIA
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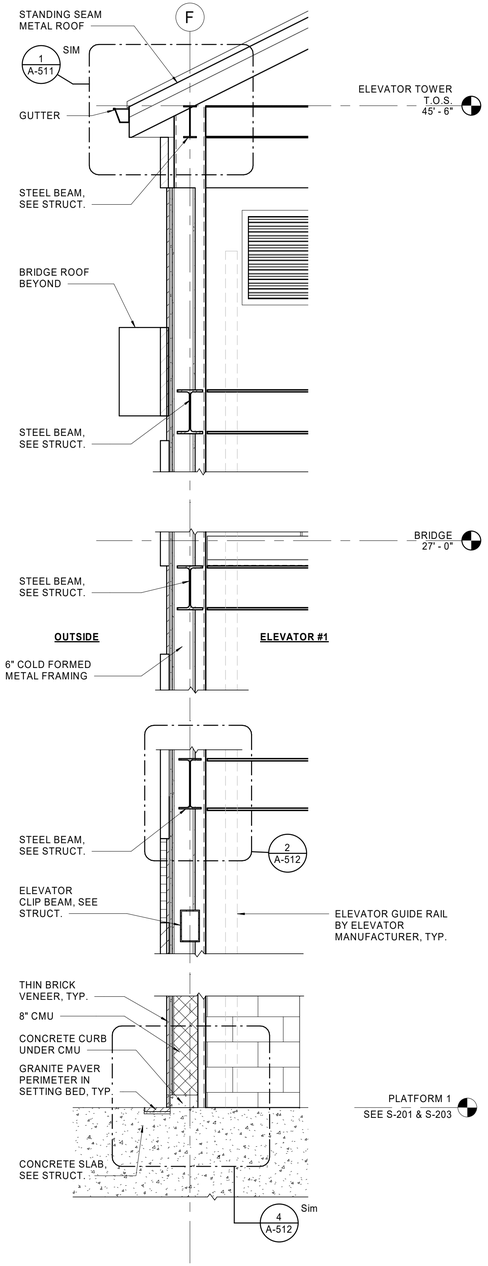
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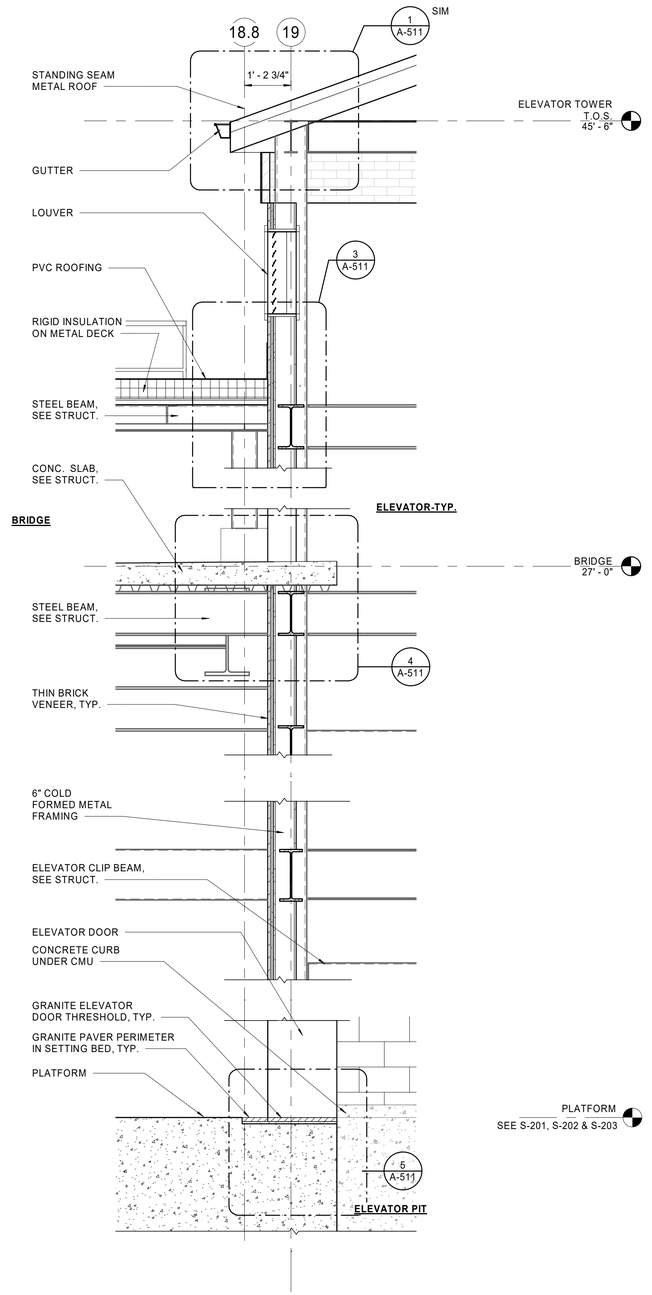
TYPICAL RAILING DETAILS

IFB NO: IFB-020-019
DRAWING NO: A-412
SCALE: AS INDICATED
SHEET NO: 85 OF 202



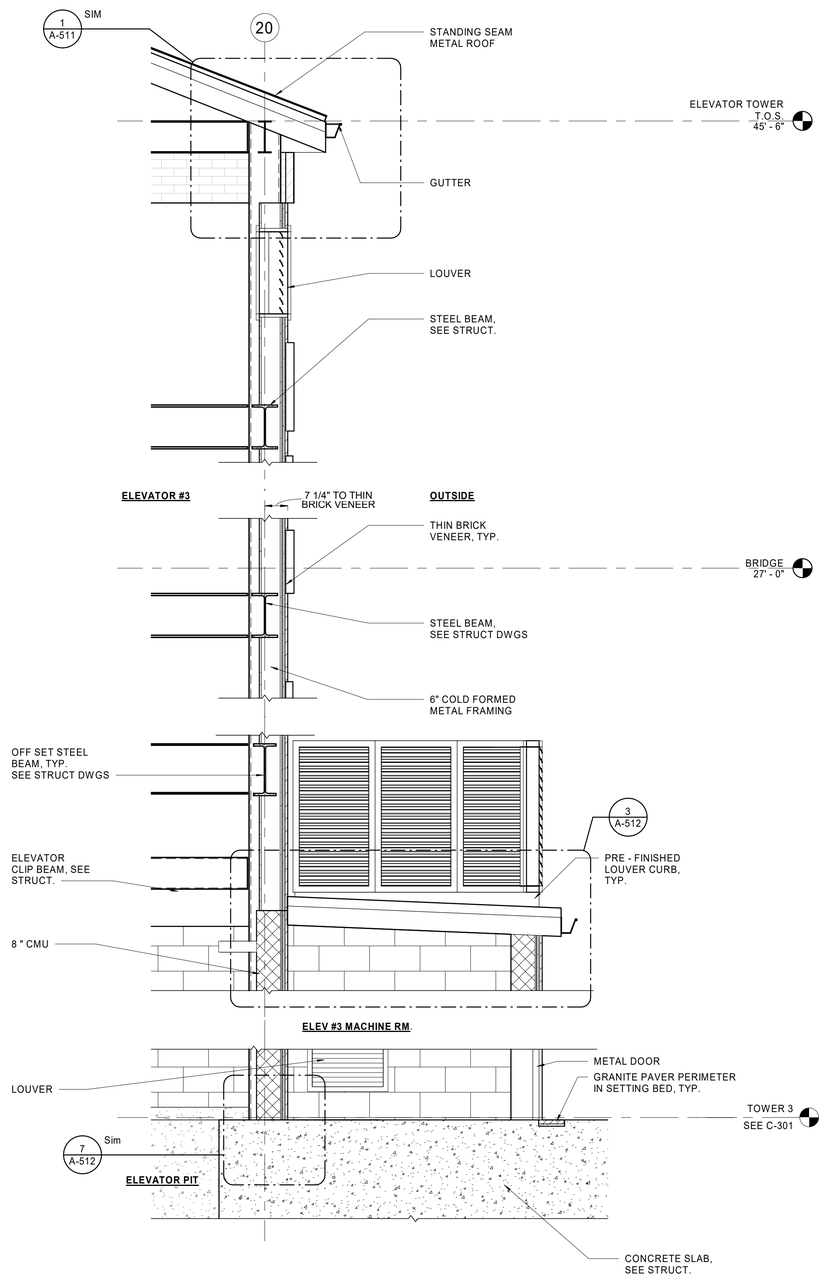
1 WALL SECTION AT TOWER 1

A-500 — 1/2" = 1'-0"



2 WALL SECTION AT BRIDGE

A-500 — 1/2" = 1'-0"



3 WALL SECTION AT TOWER 3 MACHINE ROOM

A-500 — 1/2" = 1'-0"

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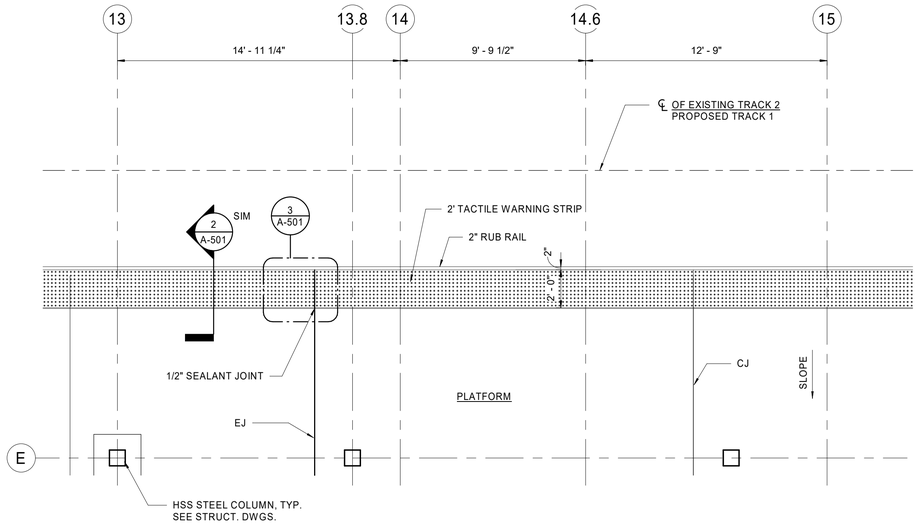
VRE

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STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

WALL SECTIONS AT TOWERS

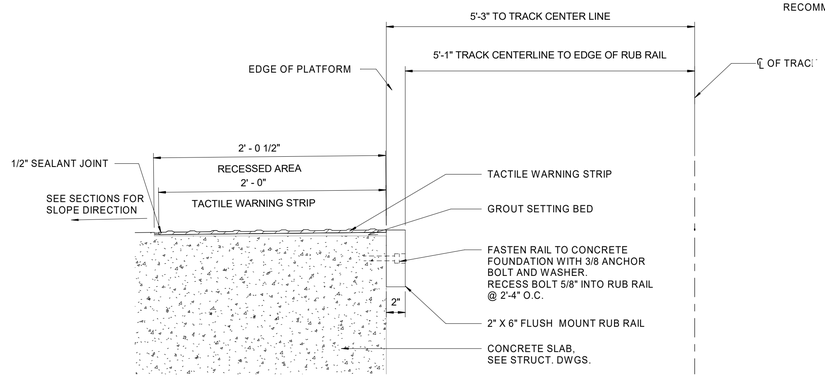
IFB NO: IFB-020-019
DRAWING NO: A-500
SCALE: 1/2" = 1'-0"
SHEET NO: 86 OF 202



1 A-501 TYPICAL PARTIAL PLATFORM PLAN

1/4" = 1'-0"

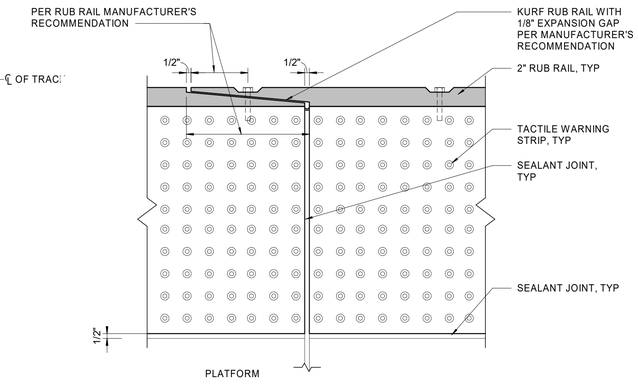
0 2' 4' 8'



2 A-501 RUB RAIL AND TACTILE WARNING STRIP SECTION DETAIL

1 1/2" = 1'-0"

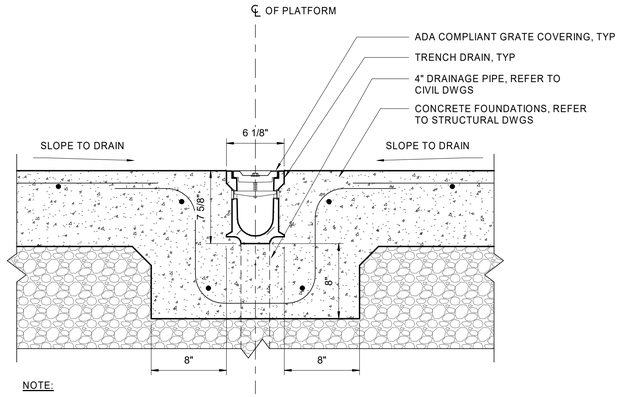
0 6" 1' 1'6"



3 A-501 TACTILE WARNING STRIP DETAIL

1 1/2" = 1'-0"

0 6" 1' 1'6"



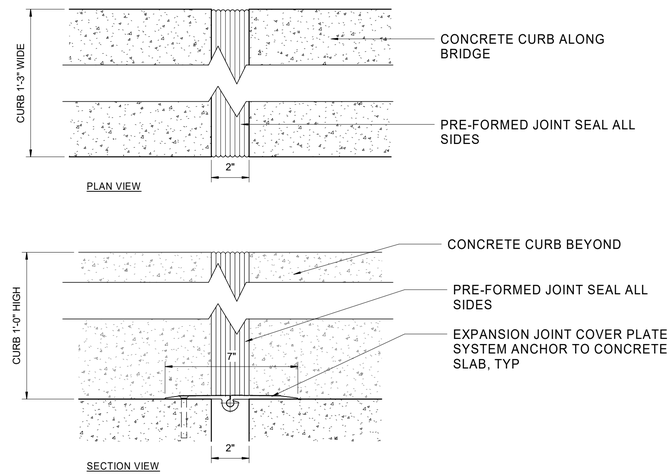
NOTE:

SET TOP ELEVATION OF TRENCH DRAIN AT A 1% SLOPE FROM LOW SIDE ELEVATION AT EDGE OF CONCRETE PLATFORM, SLOPE NOT TO EXCEED 2%. SEE DRAWING S-201 AND S-202 FOR DETAILS.

4 A-501 TYPICAL TRENCH DRAIN DETAIL

1 1/2" = 1'-0"

0 6" 1' 1'6"



5 A-501 BRIDGE FLOOR EXPANSION JOINT

3" = 1'-0"

0 3" 6" 9"

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: AK

DRAWN BY: AK

CHECKED BY: NB

DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA H. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

VRE

STV 100 Years
STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

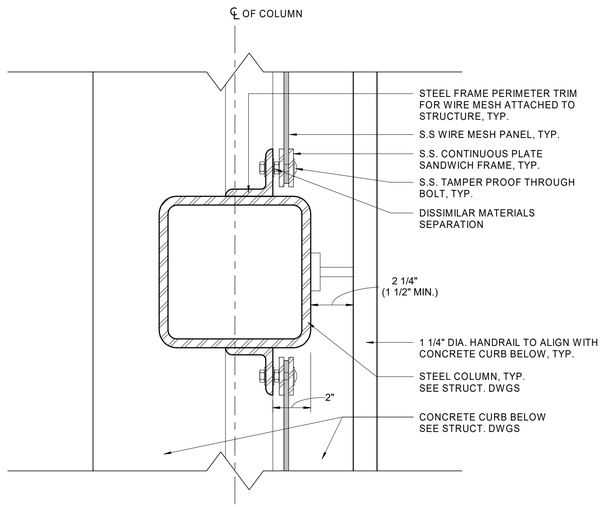
PLATFORM AND BRIDGE TYPICAL DETAILS

IFB NO: IFB-020-019

DRAWING NO: A-501

SCALE: AS INDICATED

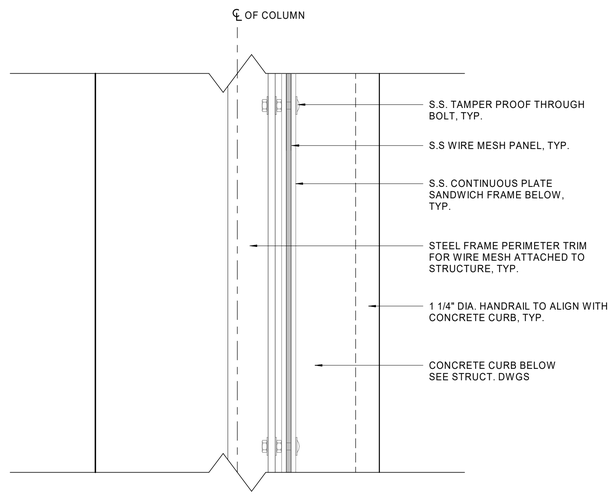
SHEET NO: 87 OF 202



1 A-502 WIRE MESH PLAN DETAIL AT COLUMN

3" = 1'-0"

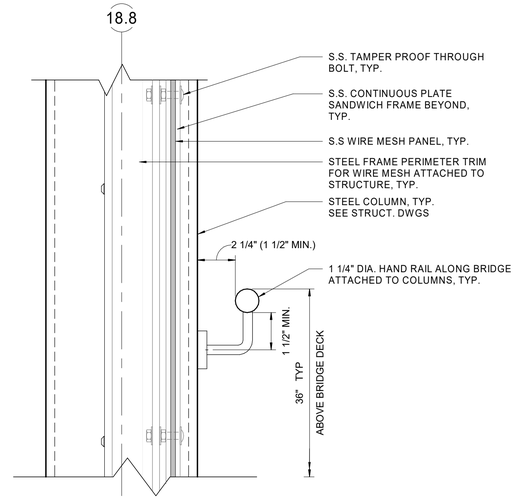
0 3" 6" 9"



2 A-502 WIRE MESH PLAN DETAIL AT CONCRETE CURB

3" = 1'-0"

0 3" 6" 9"



3 A-502 WIRE MESH SUPPORT - SECTION

3" = 1'-0"

0 3" 6" 9"

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APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: AK

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DATE: 06/10/2020

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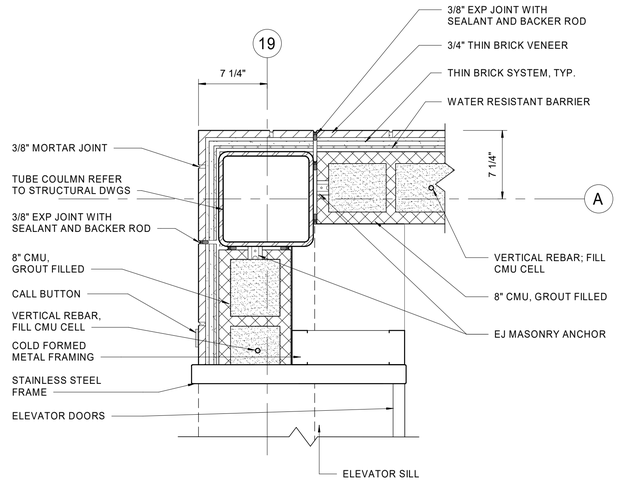
TYPICAL WIRE MESH DETAILS

IFB NO: IFB-020-019

DRAWING NO: A-502

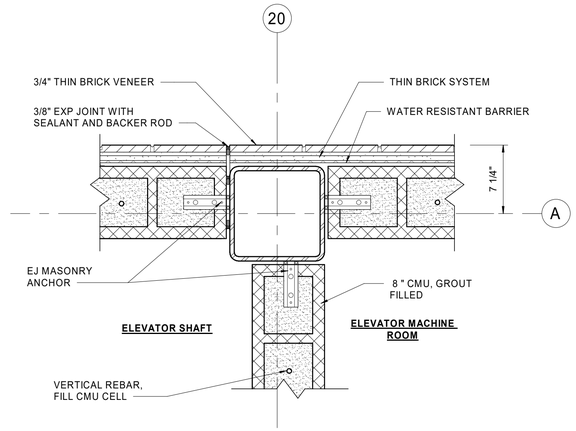
SCALE: 3" = 1'-0"

SHEET NO: 88 OF 202



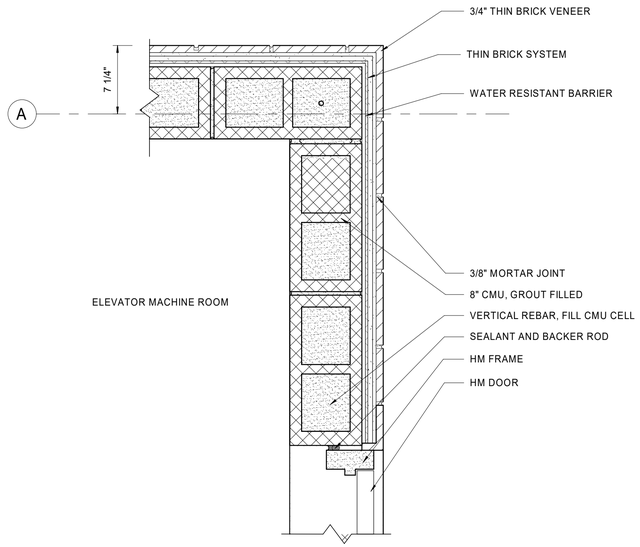
1 A-510 **GROUND LEVEL AT COL 19 AND A**

1 1/2" = 1'-0"



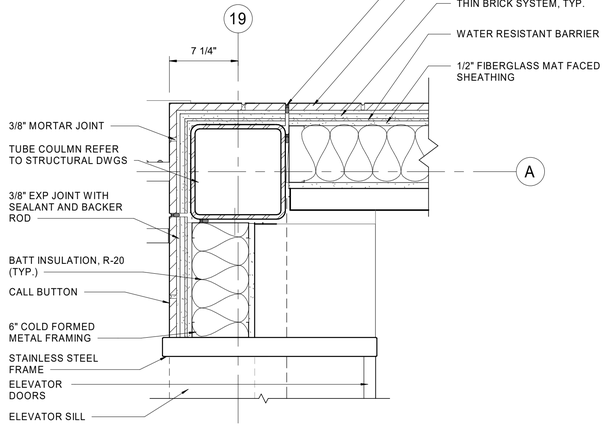
2 A-510 **GROUND LEVEL AT COL 20 AND A**

1 1/2" = 1'-0"



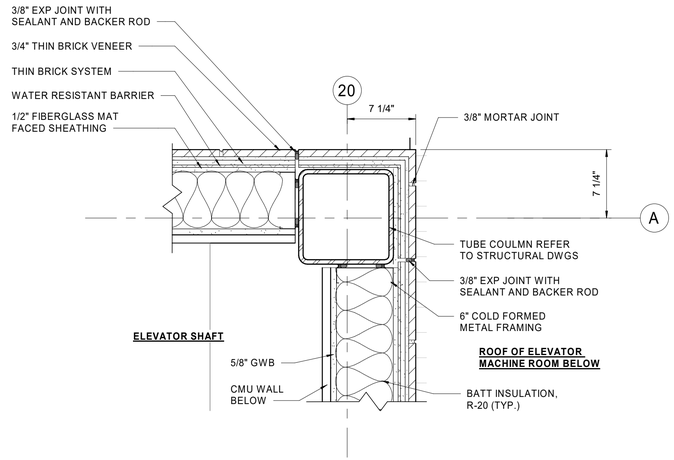
3 A-510 **GROUND LEVEL AT COL A**

1 1/2" = 1'-0"



4 A-510 **BRIDGE LEVEL AT COL 19 AND A**

1 1/2" = 1'-0"



5 A-510 **BRIDGE LEVEL AT COL 20 AND A**

1 1/2" = 1'-0"

INVITATION FOR BID
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APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR
DRAWN BY: GMJ
CHECKED BY: NB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA J. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

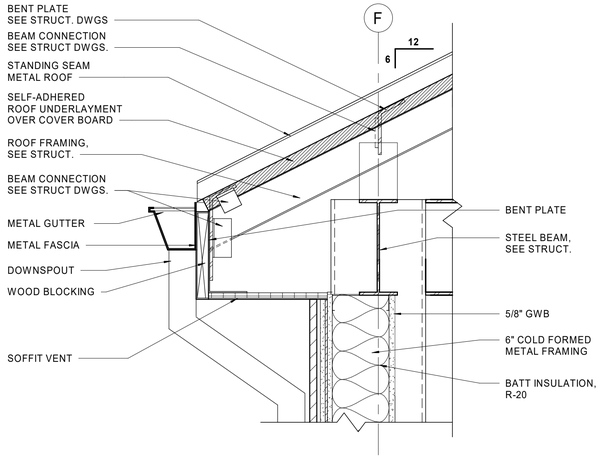
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QUANTICO STATION

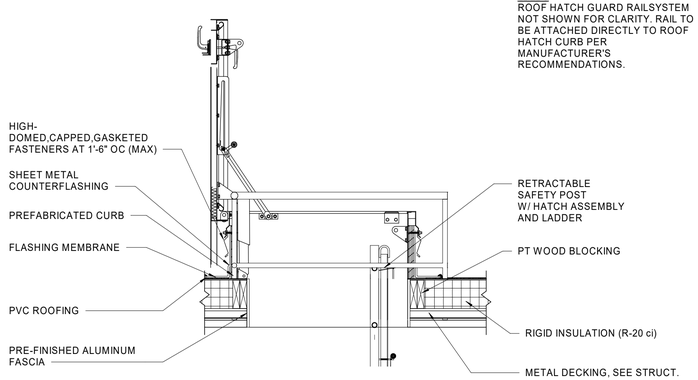
PLAN DETAILS

IFB NO: IFB-020-019
DRAWING NO: A-510
SCALE: 1 1/2" = 1'-0"
SHEET NO: 89 OF 202



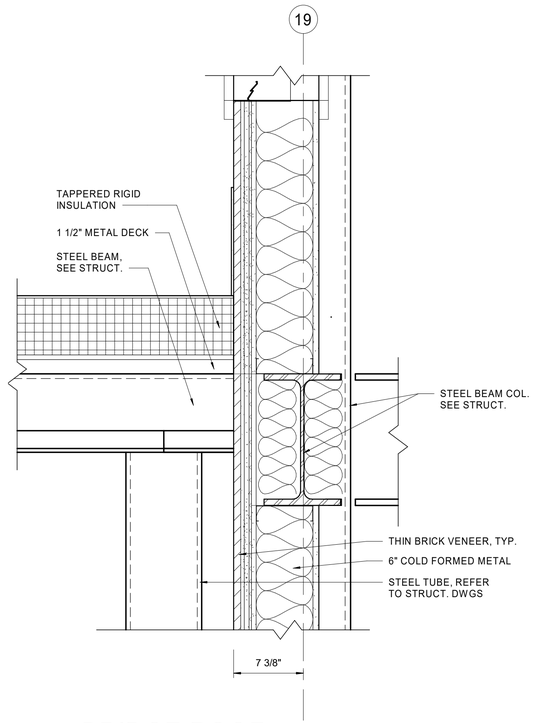
1 A-511 ELEVATOR TOWER ROOF

1 1/2" = 1'-0" 0 6" 1' 1'6"



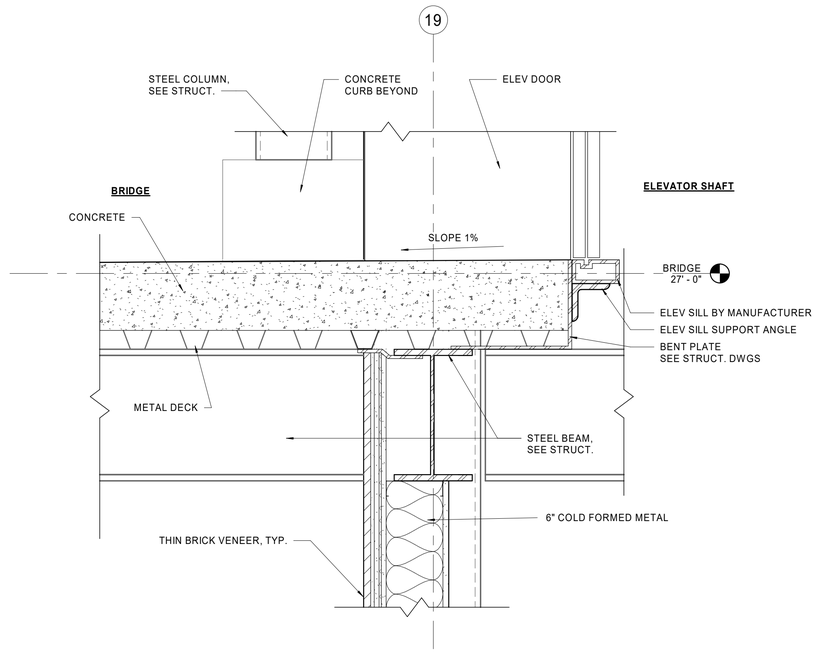
2 A-511 ROOF HATCH

3/4" = 1'-0" 0 1' 2' 3'



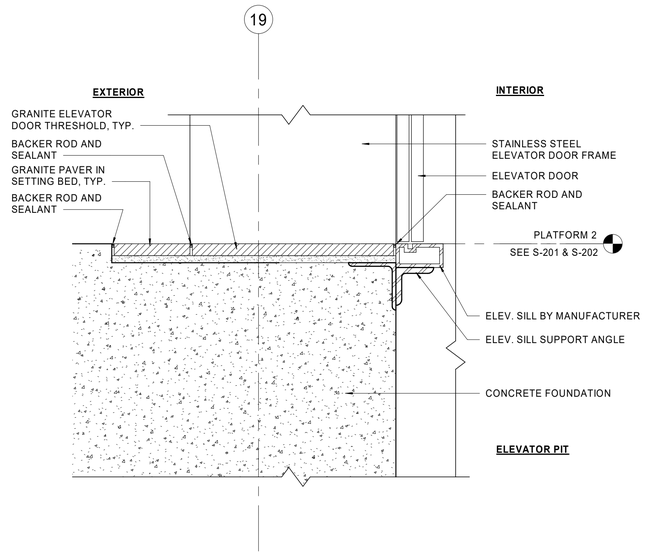
3 A-511 BRIDGE ROOF

1 1/2" = 1'-0" 0 6" 1' 1'6"



4 A-511 BRIDGE DECK

1 1/2" = 1'-0" 0 6" 1' 1'6"



5 A-511 ELEVATOR SILL

1 1/2" = 1'-0" 0 6" 1' 1'6"

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APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: JR/LJ
DRAWN BY: GMJ
CHECKED BY: NB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA J. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

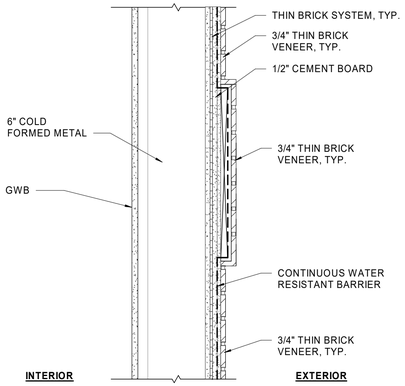
VRE

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Fairfax, VA 22031

QUANTICO STATION

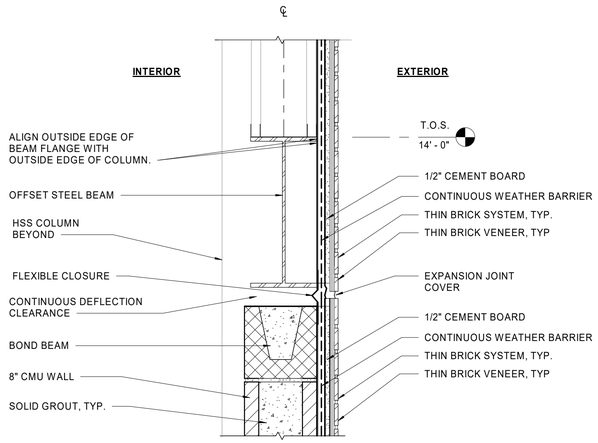
SECTION DETAILS

IFB NO: IFB-020-019
DRAWING NO: A-511
SCALE: AS INDICATED
SHEET NO: 90 OF 202



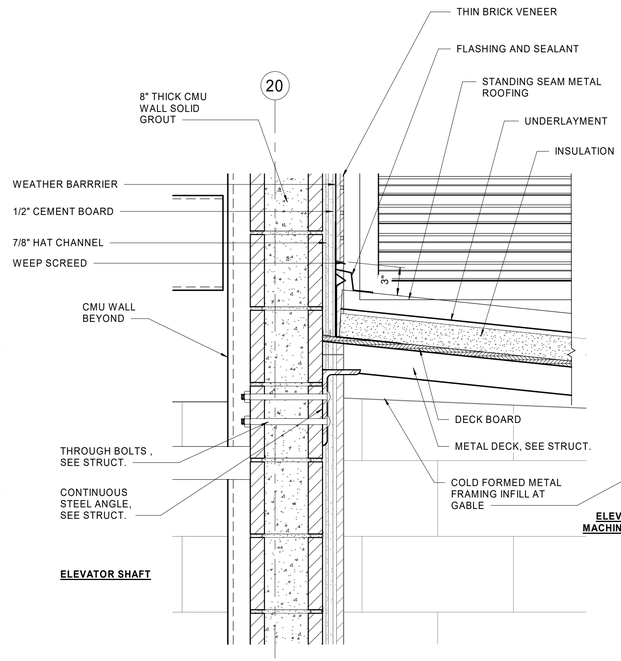
1 THIN BRICK VENEER BAND

A-512 — 1 1/2" = 1'-0" — 0 6" 1' 1'6"



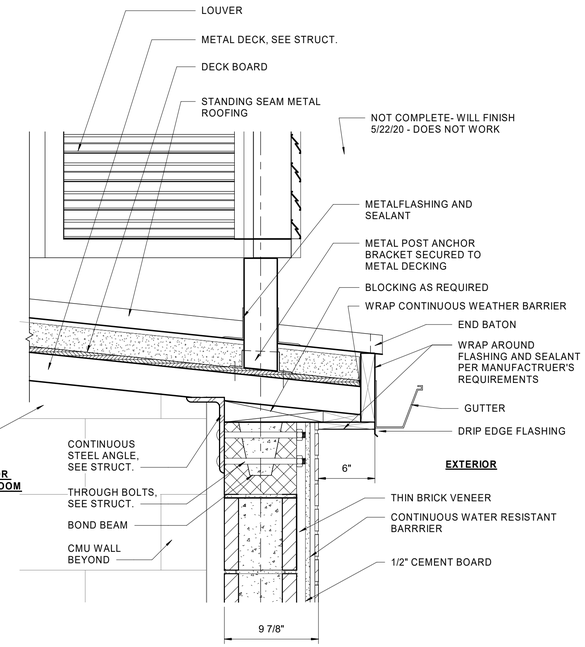
2 WALL AT BEAM

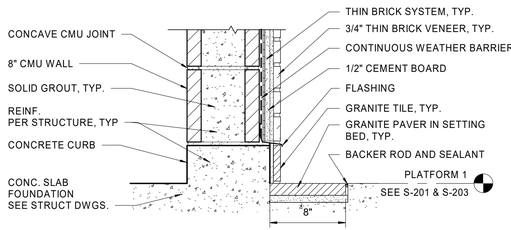
A-512 — 1 1/2" = 1'-0" — 0 6" 1' 1'6"



3 MACHINE ROOM ROOF

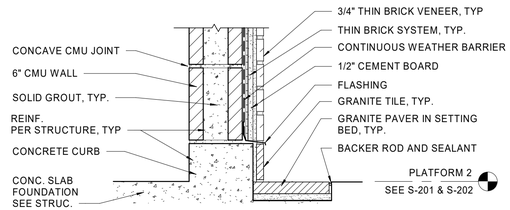
A-512 — 1 1/2" = 1'-0" — 0 6" 1' 1'6"





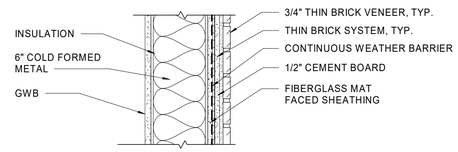
4 WALL TYPE 1

A-512 — 1 1/2" = 1'-0" — 0 6" 1' 1'6"



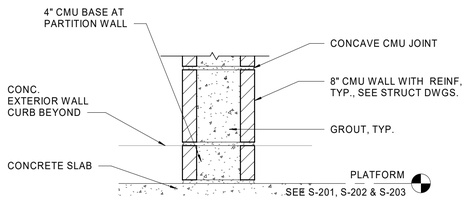
5 WALL TYPE 2

A-512 — 1 1/2" = 1'-0" — 0 6" 1' 1'6"



6 WALL TYPE 3

A-512 — 1 1/2" = 1'-0" — 0 6" 1' 1'6"



7 WALL TYPE 4

A-512 — 1 1/2" = 1'-0" — 0 6" 1' 1'6"

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR
DRAWN BY: AK
CHECKED BY: NB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA — LAURA J. JEFFORDS — Lic. No. 401017539 — 6/10/20 — ARCHITECT

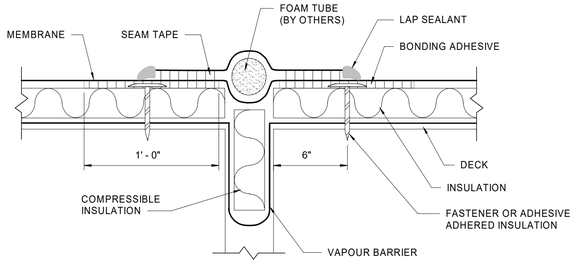
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STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

SECTION DETAILS

IFB NO: IFB-020-019
DRAWING NO: A-512
SCALE: 1 1/2" = 1'-0"
SHEET NO: 91 OF 202

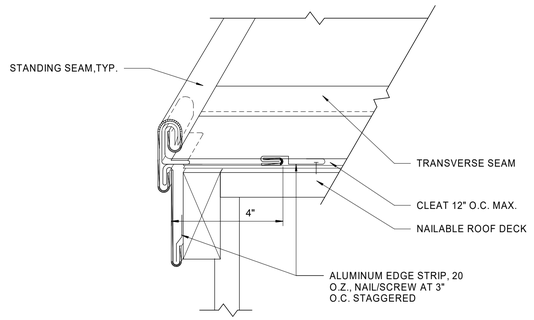


NOTE: FOAM TUBE TO BE AT LEAST SAME WIDTH AS EXPANSION JOINT.

1 PVC MEMBRANE EXPANSION JOINT

A-513

N.T.S.



3 STANDING SEAM METAL ROOF EDGE

A-513

N.T.S.

INVITATION FOR BID
NOT FOR CONSTRUCTION

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	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ
DRAWN BY ZKS
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DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA L. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

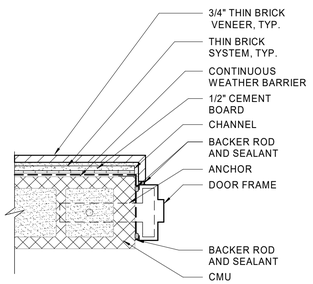
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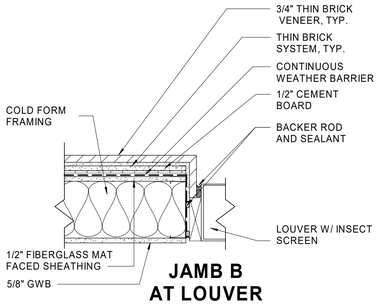
QUANTICO STATION

TYPICAL ROOF DETAILS

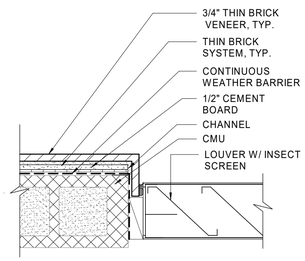
IFB NO: IFB-020-019
DRAWING NO: A-513
SCALE: 1" = 1'-0"
SHEET NO: 92 OF 202



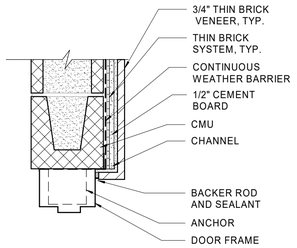
JAMB A AT DOOR



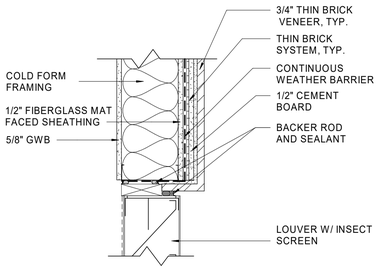
JAMB B AT LOUVER



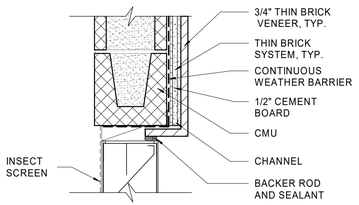
JAMB C AT LOUVER



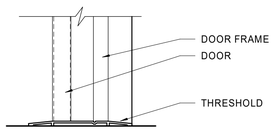
HEAD 1 AT DOOR



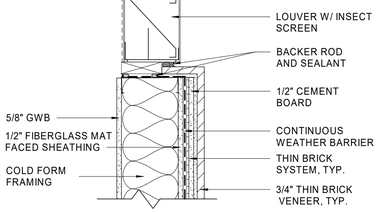
HEAD 2 AT LOUVER



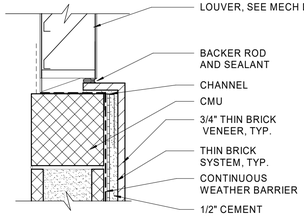
HEAD 3 AT LOUVER



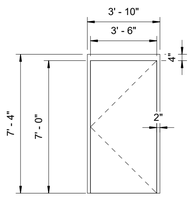
SILL 1 AT DOOR



SILL 2 AT LOUVER



SILL 3 AT LOUVER



DOOR TYPE A

DOOR SCHEDULE

DOOR NUMBER	ROOM NAME	DOOR					FRAME					FIRE RATING	HARDWARE SET	REMARKS
		TYPE	MAT.	NOMINAL SIZE WIDTH	NOMINAL SIZE HEIGHT	NOMINAL SIZE THICKNESS	TYPE	MAT.	DETAIL JAMB	DETAIL HEAD	DETAIL SILL			
D1	ELEVATOR MACHINE ROOM	A	HM	42.00"	84.00"	2.00"	A	HM	A	1	1	0	1	
D2	ELEVATOR MACHINE ROOM	A	HM	42.00"	84.00"	2.00"	A	HM	A	1	1	0	1	
D3	ELEVATOR MACHINE ROOM	A	HM	42.00"	84.00"	2.00"	A	HM	A	1	1	0	1	

ROOM SCHEDULE

ROOM NUMBER	ROOM NAME	AREA	FLOOR MATERIAL	FLOOR FINISH	BASE MATERIAL	BASE FINISH	WALL MATERIAL	WALL FINISH	FIRE RATING
01	ELEVATOR MACHINE ROOM	49.045 SF	CONCRETE	NONE	NONE	NONE	CMU	PAINT	0
02	ELEVATOR MACHINE ROOM	42.451 SF	CONCRETE	NONE	NONE	NONE	CMU	PAINT	0
03	ELEVATOR MACHINE ROOM	49.016 SF	CONCRETE	NONE	NONE	NONE	CMU	PAINT	0
Grand total: 3		140.512 SF							

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QUANTICO STATION

DOOR, ROOM AND FINISH SCHEDULES

IFB NO: IFB-020-019
DRAWING NO: A-600
SCALE: AS INDICATED
SHEET NO: 93 OF 202

PAINT AND HIGH PERFORMANCE COATING SCHEDULE

ITEM	DESCRIPTION	COATING #1	COATING #2	COLORS	NOTES
1	ELEVATOR TOWER CONCEALED STRUCTURAL STEEL	GALVANIZED			
2	METAL DECKING	GALVANIZED			
3	PEDESTRIAN BRIDGE SUBSTRUCTURE (GIRDERS AND DIAPHRAMS)	GALVANIZED	HIGH PERFORMANCE COATING	NAVY BLUE	
4	PEDESTRIAN BRIDGE SUPER-STRUCTURE (CANOPY AND ROOF)	GALVANIZED	HIGH PERFORMANCE COATING	NAVY BLUE	
5	CONCEALED COLD-FORM METAL FRAMING	GALVANIZED			
6	METAL RAILINGS	GALVANIZED	PAINTED	NAVY BLUE	
7	METAL PAN STAIRS AND STRINGERS	GALVANIZED	PAINTED	NAVY BLUE	
8	METAL ROOFING	PREFINISHED	PREFINISHED	TUNDRA	
9	METAL LOUVERS (MATCH ROOFING TUNDRA GRAY)	PREFINISHED	PREFINISHED	TUNDRA	
10	METAL HVAC SCREEN (MATCH ROOFING TUNDRA GRAY)	PREFINISHED	PREFINISHED	TUNDRA	
11	METAL DOORS AND FRAMES	GALVANIZED	PAINTED	TUNDRA	
12	METAL INTERTRACK FENCING	GALVANIZED			
13	STAINLESS STEEL ELEVATOR ENTRY THRESHOLD AND FRAME	PREFINISHED	PREFINISHED		
14	BOLLARDS	GALVANIZED	PAINTED	SAFETY YELLOW	
15	STAINLESS STEEL METAL MESH	PREFINISHED	PREFINISHED		
16	STAINLESS STEEL METAL MESH ENCLOSURE ANGLE STEEL AND FASTENERS	PREFINISHED	PREFINISHED		
17	BRIDGE METAL PARAPET/FACIA	PREFINISHED	PREFINISHED		MATCH EXISTING STATION CANOPY
18	CANOPY FACIA	PREFINISHED	PREFINISHED		MATCH EXISTING STATION CANOPY
19	BRIDGE PARAPET METAL COPING	GALVANIZED	PREFINISHED		MATCH EXISTING STATION CANOPY
20	GUTTERS AND DOWNSPOUTS	PREFINISHED	PREFINISHED	TUNDRA	MATCH METAL ROOFING AND LOUVER SYSTEM
21	ROOF HATCH ANGLES	GALVANIZED			
22	CONCEALED METAL ANGLES AND FRAMING - ELEVATOR MACHINE ROOM	GALVANIZED			
23	CONCEALED MISC. METAL FRAMING IN ELEVATOR SHAFT	GALVANIZED			
24	BRIDGE CANOPY SUPPORT POSTS	GALVANIZED	PAINTED	NAVY BLUE	
25	STAIR CANOPY SUPPORT POSTS	GALVANIZED	PAINTED	NAVY BLUE	
26	EXPANSION JOINT COVERS	MILL FINISH			SLIP RESISTANT

MATCH COLORS LISTED OR SUBMIT EQUAL FOR REVIEW AND APPROVAL

MBCI SIGNATURE 300: STANDARD MANUFACTURER COLOR — TUNDRA

TNEMEC FLOURONAR F073-63BL — NAVY BLUE

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: AK
DRAWN BY: ZKS
CHECKED BY: LJ
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA K. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

VRE

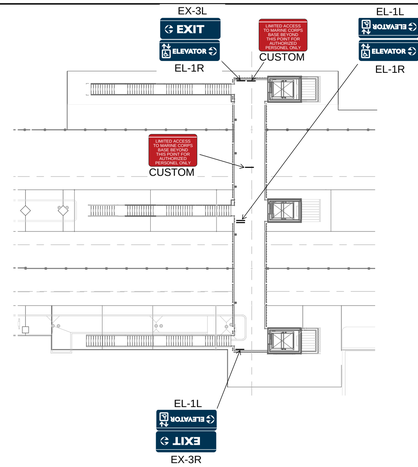
STV 100 Years
STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

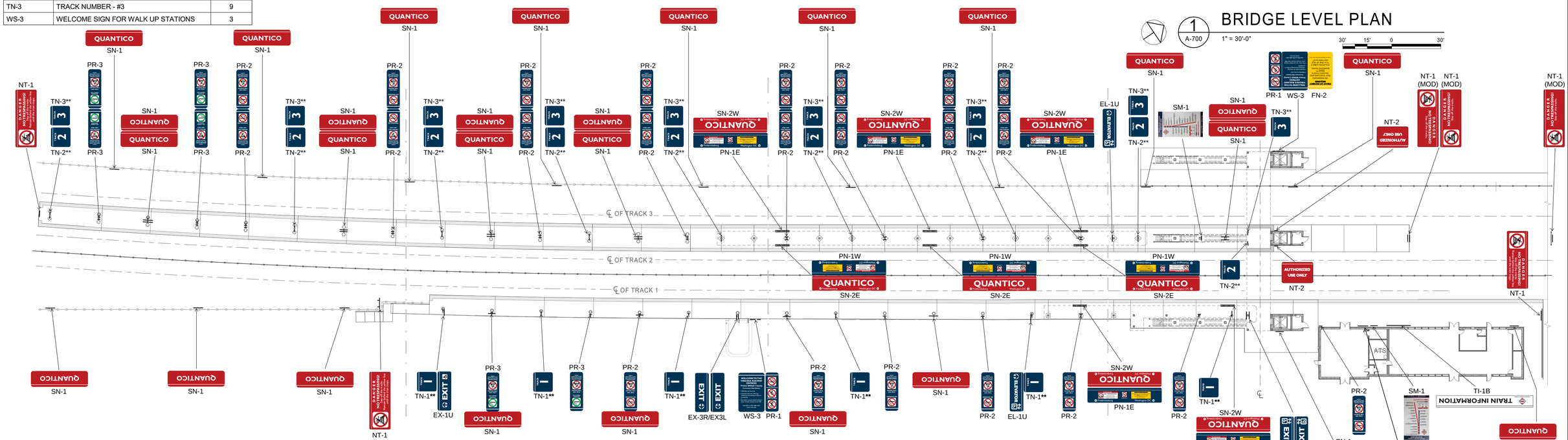
QUANTICO STATION

PAINT SCHEDULE

IFB NO: IFB-020-019
DRAWING NO: A-601
SCALE: 1/8" = 1'-0"
SHEET NO: 94 OF 202

SIGN INVENTORY		
SIGN NO.	DESCRIPTION/LOCATION	QUANTITY
CUSTOM	LIMITED ACCESS TO MCBQ	2
EL-1L/EL-1R	ELEVATOR DIRECTION - LEFT/RIGHT	2/2
EL-1U	ELEVATOR DIRECTION - UP	2
EX-1U	EXIT TO ADA RAMP - UP	1
EX-2L/EX-2R	EXIT TO ELEVATOR - LEFT/RIGHT	1/1
EX-3L/EX-3R	STANDARD EXIT - LEFT/RIGHT	3/3
FN-2	FARE NOTICE: PROOF OF PAYMENT	2
NT-1	NO TRESPASSING	3
NT-1	(MOD)	3
NT-2	AUTHORIZED USE ONLY	2
PN-1E	PLATFORM NOTICE - EAST	5
PN-1W	PLATFORM NOTICE - WEST	3
PR-1	PROHIBITIONS	3
PR-2	PROHIBITIONS	23
PR-3	PROHIBITIONS	6
SN-1	STATION NAME	26
SN-2W	STATION NAME - WEST	5
SN-2E	STATION NAME - EAST	3
SM-1	BRAILLE SYSTEM MAP	2
TI-1B	TRAIN INFORMATION - 3 POSTER WIDE	1
TN-1	TRACK NUMBER - #1	6
TN-2	TRACK NUMBER - #2	9
TN-3	TRACK NUMBER - #3	9
WS-3	WELCOME SIGN FOR WALK UP STATIONS	3





PLATFORM LEVEL PLAN

2 / A-700 — 1" = 30'-0"

30' 15' 0 30'

BRIDGE LEVEL PLAN

1 / A-700 — 1" = 30'-0"

30' 15' 0 30'

KEY PLAN

LEGEND

- GROUND MOUNTED SIGN
- COLUMN MOUNTED SIGN
- LIGHT POLE MOUNTED SIGN
- WALL MOUNTED SIGN
- CANOPY MOUNTED SIGN
- FENCE/RAILING MOUNTED SIGN

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
		06/10/20			
APPROVED BY COUNTY					

DESIGNED BY: CDK
DRAWN BY CDK
CHECKED BY: AK
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA L. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

VRE

STV 100 Years
STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

STATION SIGNAGE PLAN

IFB NO:
DRAWING NO: A-700
SCALE: 1" = 30'
SHEET NO: 95 OF 202



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:

THESE THREE DIMENSIONAL RENDERINGS ARE FOR USE IN VISUALIZING THE DESIGN CONCEPT ONLY. REFER TO THE DRAWINGS AND SPECIFICATIONS FOR THE SCOPE OF WORK.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR
DRAWN BY: YY
CHECKED BY: HDS
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA J. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

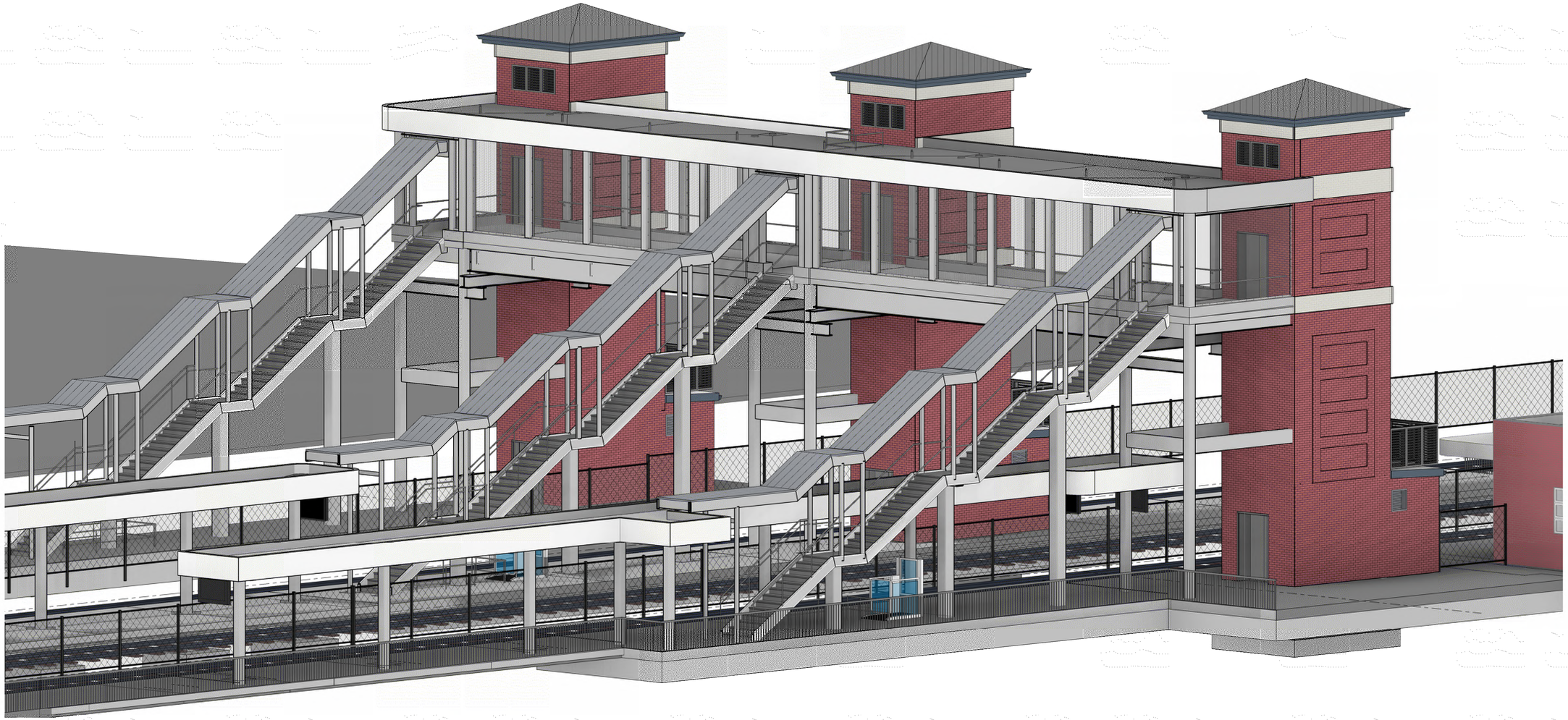
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STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

3D REPRESENTATION

IFB NO: IFB-020-019
DRAWING NO: A-900
SCALE: N.T.S.
SHEET NO: 96 OF 202



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:

THESE THREE DIMENSIONAL RENDERINGS ARE FOR USE IN VISUALIZING THE DESIGN CONCEPT ONLY. REFER TO THE DRAWINGS AND SPECIFICATIONS FOR THE SCOPE OF WORK.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: LJ/JR
DRAWN BY: YY
CHECKED BY: NB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
LAURA J. JEFFORDS
Lic. No. 401017539
6/10/20
ARCHITECT

VRE

STV 100 Years
STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

3D REPRESENTATION

IFB NO: IFB-020-019
DRAWING NO: A-901
SCALE: N.T.S.
SHEET NO: 97 OF 202

A. DESIGN INFORMATION

A. GENERAL

1. THE STRUCTURAL DRAWINGS HEREIN REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY GUYINGS AND BRACINGS REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL ALL STRUCTURAL WORKS AND CONNECTIONS HAVE BEEN COMPLETED. THE INVESTIGATION, DESIGN, SAFETY, ADEQUACY AND INSPECTION OF ERECTION BRACING, SHORING, TEMPORARY SUPPORT, ETC., IS THE RESPONSIBILITY OF THE CONTRACTOR.
2. THE CONTRACTOR SHALL PROVIDE WELL BRACED SHORING AT EXCAVATIONS NEAR EXISTING STRUCTURES IN ORDER TO PREVENT SETTLEMENT AND CAVE-INS.
3. THE CONTRACTOR SHALL VERIFY THE LOCATION AND SIZE OF EXISTING UTILITIES PRIOR TO START OF WORK.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE METHOD, TECHNIQUES, AND SEQUENCES OF PROCEDURES TO PERFORM THE WORK. THE SUPERVISION OF THE WORK IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS INCIDENTAL TO THE WORK AND SHALL BE COORDINATED PRIOR TO PROCEEDING WITH LAYOUT, CONSTRUCTION OR FABRICATION. THE CONTRACTOR SHALL NOTIFY IMMEDIATELY THE ENGINEER OF ANY DIMENSIONAL DISCREPANCIES AND VARIATIONS BETWEEN SHEETS, AND ACTUAL CONDITIONS.
6. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS OF ALL OTHER DISCIPLINES AND THE SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES, UNDERGORUND PIPING, ELECTRICAL GROUNDING, AND OTHER ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORK.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. THE ENGINEER WILL NOT ADVISE NOR ISSUE DIRECTIONS AS TO SAFETY PRECAUTIONS AND PROGRAMS.
8. THE CONTRACTOR SHALL COORDINATE ALL MECHANICAL OPENINGS WITH MECHANICAL ENGINEERS. FINAL SIZES AND LOCATIONS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL.
9. DIMENSIONS OF EQUIPMENT OPENINGS, SUPPORTS, PADS, SLAB DEPRESSIONS, FOUNDATIONS AND ANCHORAGE HAVE BEEN DETERMINED USING A SPECIFIC MANUFACTURER'S EQUIPMENT. FINAL DIMENSIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT PURCHASED. DIMENSIONS SHALL BE CHANGED ONLY WITH THE APPROVAL OF THE ENGINEER.
10. THE CONTRACTOR SHALL REFER TO THE SOIL REPORT AND THE PROJECT SPECIFICATIONS FOR ALL REQUIREMENTS RELATIVE TO SITE PREPARATION, EARTHWORK, ETC..
11. THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL ENGINEERING REPORT, QUANTICO STATION REDESIGN, QUANTICO, PRINCE WILLIAM COUNTY VIRGINIA BY GEOCONCEPTS ENGINEERING, INC DATED MARCH 29, 2016 FOR ALL FOUNDATION WORK. THIS REPORT SHALL ALSO BE KNOWN AS "THE GEOTECHNICAL REPORT".

B. CODES

1. DESIGN CONFORMS TO THE "VIRGINIA CONSTRUCTION CODE", VUSBC 2012 AND THE INTERNATIONAL BUILDING CODE, IBC 2012.
2. AMERICAN CONCRETE INSTITUTE (ACI)
   - "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318-11.
3. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
   - "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", AISC 360-10
   - AISC STEEL CONSTRUCTION MANUAL 14TH EDITION
4. AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)
   - "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES", ASCE 5-11 (ACI 530)
   - "SPECIFICATIONS FOR MASONRY STRUCTURES", ASCE 6-11 (ACI 530.1).
   - "MINIMUM DESIGN LOADS FOR BUILDINGS & OTHER STRUCTURES", ASCE 7-10.
5. AMERICAN WELDING SOCIETY (AWS)
   - STRUCTURAL WELDING CODE - STEEL, AWS D1.1.2015
6. STEEL DECK INSTITUTE (SDI)
   - "SPECIFICATIONS FOR STEEL COMPOSITE AND NON-COMPOSITE FLOOR DECK"
   - "SPECIFICATIONS FOR STEEL ROOF DECK".

C. LOADS

1. SUPERIMPOSED DEAD LOAD:

   a) ELECTRICAL, MECHANICAL AND CEILING..... 10PSF

2. LIVE LOADS:

   a) FLOOR ..... 100 PSF
   b) STAIRS ..... 100 PSF
   c) ROOF (REDUCIBLE) ..... 20 PSF

3. SNOW LOADS:

   a) GROUND SNOW LOAD. Pg ..... 30 PSF
   b) RISK CATEGORY..... II
   c) SNOW IMPORTANCE FACTOR, Is..... 1.0

4. WIND LOADS:

   a) BASIC WIND SPEED (3-SECOND GUST)..... 115 MPH
   b) RISK CATEGORY..... II
   c) WIND IMPORTANCE FACTOR, Iw..... 1.0

5. SEISMIC LOADS:

   a) SOIL SITE CLASS ..... D
   b) RISK CATEGORY..... II
   c) SEISMIC IMPORTANCE FACTOR, Is..... 1.0
   d) 0.2 SEC SPECTRAL RESPONSE, Ss..... 0.127g
   e) 1.0 SEC SPECTRAL RESPONCE, S1..... 0.053g
   f) Sds..... 0.136g
   g) Sd1..... 0.084g
   h) SEISMIC DESIGN CATEGORY..... B

B. FOUNDATIONS

1. ALL SUBGRADE, PLATFORM SLABS ON GRADE/FOOTINGS/MAT FOUNDATIONS EXCAVATIONS, COMPACTED FILL AND BACKFILL SHALL BE PREPARED ACCORDING TO RECOMMENDATIONS STATED IN THE GEOTECHNCIAL REPORT BY GEOCONCEPTS EGNINEERING, INC. DATED MARCH 29, 2016.
2. FOUNDATIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATION AND REQUIREMENTS OF THE GEOTECHNICAL REPORT.
3. PROVIDE A MINIMUM NET ALLOWABLE SOIL BEARING CAPACITY OF 2500 PSF AND 3000 PSF BELOW ALL MAT FOUNDATIONS AND FOOTINGS, RESPECTIVELY, AND TO A DISTANCE OUTSIDE THEIR PERIMETER SO AS TO INSURE PROPER FOUNDATION PERFORMANCE AS VERIFIED BY THE GEOTECHNICAL ENGINEER.
4. ALL SUBGRADE, PLATFORM SLABS ON GRADE/FOOTINGS/MAT FOUNDATIONS EXCAVATIONS, COMPACTED FILL AND BACKFILL SHALL BE INSPECTED AND TESTED BY A GEOTECHNICAL ENGINEER REGISTERED AS A PROFESSIONAL ENGINEER IN THE COMMONWEALTH OF VIRGINIA TO VERIFY CONFORMANCE WITH THE RECOMMENDATIONS HEREIN.
5. ALL BACKFILL AGAINST WALLS SHALL BE PLACED ONLY AFTER THE CONCRETE IS IN PLACE AND ACHIEVED THE DESIGN STRENGTH OF 4000 PSI.
6. FROST DEPTH = 24 INCHES
7. ALL MAT FOUNDATIONS SHALL BE PLACED ON A 3" TO 4" THICK CONCRETE WORK MAT ON FRESHLY EXCAVATED SUBGRADE.
8. ALL PLATFORM SLABS ON GRADE SHALL BE PLACED ON A 6" THICK MINIMUM LAYER OF AASHTO NO. 57 CLEAN CRUSHED STONE..

C. CAST-IN-PLACE CONCRETE

1. UNLESS NOTED OTHERWISE, ALL CAST IN PLACE CONCRETE SHALL BE AIR ENTRAINED WITH A MAXIMUM SLUMP OF 4 INCHES. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE ACI 318 AND ACI 301. CONCRETE SHALL ATTAIN MINIMUM 28 DAY STRENGTH OF 4000 PSI.
2. ALL REINFORCING STEEL FOR CONCRETE SHALL CONFORM TO ASTM SPECIFICATIONS A 615, GRADE 60 FOR BARS AND A 185 FOR WELDED WIRE FABRIC. REINFORCING DETAILS SHALL BE IN ACCORDANCE WITH CURRENT ACI "MANUAL OF STANDARD PRACTICES FOR DETAILING REINFORCED CONCRETE STRUCTURES". BAR LAPS SHALL BE CLASS "B" TENSION LAPS. PROVIDE CONCRETE COVER OVER REINFORCING BARS IN ACCORDANCE WITH ACI 318. HOOKS SHOWN SHALL BE STANDARD HOOKS UNLESS OTHERWISE DIMENSIONED. ALL REINFORCING BAR DIMENSIONS ARE TO THE CENTER OF BARS UNLESS OTHERWISE NOTED.
3. CONTINUOUS REINFORCING IN FOOTINGS MAY BE SPLICED, AS REQUIRED, PROVIDED BARS ARE OF THE LONGEST MOST PRACTICAL LENGTH AND SPLICES ARE SHOWN ON REINFORCING SHOP DRAWINGS. WHEREVER POSSIBLE, SPLICES SHALL BE STAGGERED. FIELD CUTTING OF REINFORCEMENT WILL NOT BE PERMITTED.
4. CONCRETE SURFACE SEALER SHALL BE SIKATOP 144 AS MANUFACTURED BY THE SIKA CORPORATION OR APPROVED EQUAL.

   UNLESS SHOWN OTHERWISE, THE FOLLOWING CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:

   a) CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ..... 3 IN.

   b) FORMED CONCRETE EXPOSED TO EARTH OR WEATHER

      1) NO. 6 THROUGH NO. 18 ..... 2 IN.
      2) NO. 5 AND SMALLER ..... 11/2 IN.

   d) CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:

      1) SLABS, WALLS: ..... 3/4 IN.
      2) BEAMS, COLUMNS ..... 11/2 IN.

5. MAJOR CONSTRUCTION JOINTS ARE SHOWN ON THE DRAWINGS. INTERMEDIATE JOINTS IN SLABS ARE NOT SHOWN. CONSTRUCTION JOINTS MAY BE ADDED, OMITTED, OR RELOCATED IF PROPERLY DETAILED ON SHOP DRAWINGS AND APPROVED BY THE OWNER'S REPRESENTATIVE.
6. SEE ARCHITECTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS FOR LOCATIONS OF OPENINGS AND SLEEVES IN CONCRETE WALLS. DO NOT CUT REINFORCEMENT. SEE TYPICAL REINFORCEMENT DETAILS FOR OPENINGS IN SLABS FOR ADDITIONAL REQUIREMENTS

D. STRUCTURAL STEEL

1. MATERIALS

   a) STRUCTURAL STEEL W-SHAPES SHALL CONFORM TO ASTM A992 GR 50.

   b) STRUCTURAL STEEL ANGLES, CHANNELS, PLATES, AND MISCELLANEOUS STEELL SHALL CONFORM TO ASTM A36 U.N.O.

   c) STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500, GRADE B.

   d) STRUCTURAL HIGH STRENGTGH BOLTS SHALL CONFROM TO ASTM A325.

   e) ALL WELDING SHALL CONFORM TO AWS "STRUCTURAL WELDING CODE D1.1" USING AWS A.5.1 E70XX ELECTRODES.

   f) UNLESS OTHERWISE NOTED OR APPROVED, ANCHOR BOLT MATERIAL SHALL CONFORM TO THE FOLLOWING:
      1) THREADED RODS..... ASTM F1554, GR 55
      2) NUTS..... ASTM A563, GR A HEAVY HEX
      3) THREADS..... UNC PER ANSI B1.1 CLASS 2A FIT
      4) WASHERS..... ASTM F436 TYPE 1
      5) NUTS, BOLTS, AND WASHERS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A153, UNO.

2. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE CURRENT EDITION OF AISC "SPECIFICATIONS FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS". ALL EXPOSED TO WEATHER EXTERIOR STEEL SHALL BE PAINTED. CONNECTION BOLTS SHALL BE PAINTED TO MATCH STRUCTURAL STEEL.
3. CONNECTIONS NOT SHOWN ON DRAWINGS SHALL BE DESIGNED BY THE STEEL FABRICATOR AND SHALL BE IN STRICT ACCORDANCE WITH THE AISC SPECIFICATIONS AND AWS CODES. ALL BOLTED FRAMING CONNECTIONS SHALL BE MINIMUM 3/4" DIAMETER ASTM A 325-N BOLTS DESIGNED AND DETAILED AS BEARING TYPE WITH THREADS IN THE SHEAR PLANE IN ACCORDANCE WITH THE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS AND "AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES". CONNECTIONS NOT SHOWN SHALL BE AS SHOWN IN TABLE II OF THE AISC ALLOWABLE STRESS DESIGN OF SIMPLE SHEAR CONNECTIONS" USING THE MAXIMUM NUMBER OF ROWS OF BOLTS FOR EACH BEAM SIZE AND MINIMUM OF 2 BOLTS. ALL WELDED FRAMING CONNECTIONS SHALL HAVE A CAPACITY NO LESS THAN THAT OF AN EQUIVALENT BOLTED CONNECTION AS STATED ABOVE AND MINIMUM WELD SIZE OF 3/16".
4. ALL CLIP ANGLES; CONNECTION MATERIALS AND GUSSETS SHALL BE 5/16" THICK MINIMUM. PROVIDE 3/8" STIFFENER PLATES LOCALLY AT ALL HANGERS AND POSTS.

E. STEEL DECKING

1. UNLESS NOTED OTHERWISE, ROOF DECKING SHALL BE 1 1/2" DEEP X 36" WIDE, TYPE B AS MANUFACTORED BY VULCRAFT OR EQUAL, 20 GAGE FLUTED, GALVANIZED, STEEL DECK CONFORMING TO ASTM A446 AND HAVING MINIMUM SECTION PROPERTIES AS FOLLOWS: I= 0.210 IN 4/FT., Sp=0.232 IN 3 FT., Sn=0.245 IN 3 FT.
2. DECKING SHALL BE CONNECTED TO ALL SUPPORTS (INCLUDING SIDE SUPPORTS AT WALLS OR BEAMS) WITH 5/8" DIAMETER PUDDLE WELDS OR #12 STEEL SCREWS ON A 6-12-12-6 (36/5) PATTERN. DECKING SHALL BE CONNECTED AT SIDE LAPS WITH #12 STEEL SCREWS AT 12 INCHES ON CENTER. ALL ROOF DECKING SHALL BE CONTINUOUS OVER 3 OR MORE SPANS.
3. TOWER SLAB DECKING SHALL BE 3" DEEP, MIN. 18 GA. GALVANIZED AND CAPABLE OF SPANNING TO SUPPORTS SHOWN WITHOUT SHORING. DECK SHALL BE NON-COMPOSITE WITH CONCRETE DECK AND CAPABLE OF PRODUCING LIVE LOAD CAPACITY OF 150 LBS PER SQ. FOOT. DECK SHALL HAVE MINIMUM SECTION PROPERTIES AS FOLLOWS: I= 1.254 IN 4/FT., Sp=0.770 IN 3/FT., Sn=0.797 IN 3/FT.
4. BRIDGE DECKING SHALL BE IN ACCORDANCE WITH VDOT ROAD AND BRIDGE SPECIFICATIONS, SECTION 404.03

F. MASONRY

1. MATERIALS:

   a) HOLLOW CONCRETE MASONRY UNITS (CMU) ..... ASTM C90, GRADE N, TYPE I.
   b) SOLID CMU ..... ASTM C145, GRADE N.
   c) COMPRESSIVE STRENGTH OF MASONRY ASSEMBLY ..... f'm = 1500 PSI.
   d) MORTAR ..... ASTM C270, TYPE S.
   e) GROUT ..... ASTM C476, fc = 3000 PSI
   f) HORIZOTNAL JOINT REINFORCING ..... ASTM A82, 9 GA
   g) REINFORCING BARS ..... ASTM A615, GRADE 60.

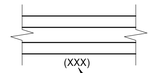
2. UNLESS NOTED OTHERWISE, REINFORCE MASONRY WALLS WITH LADDER TYPE JOINT REINFORCEMENT AT 16 INCHES O.C. VERTICAL. PROVIDE PREFABRICATED TEES AND CORNERS AT WALL INTERSECTIONS.
3. UNLESS NOTED OTHERWISE, PROVIDE #5 VERTICAL BARS AT 4 FEET O.C. (MAXIMUM) HORIZONTALLY AT MIDDLE OF ALL MASONRY WALLS. LOCATE BAR AT CORNERS, INTERSECTIONS AND EACH SIDE OF WALL OPENINGS. PROVIDE CONTINUOUS BOND BEAMS REINFORCED WITH 2 #5 AT TOP OF ALL WALLS.
4. ALL VERTICAL REINFORCING IN MASONRY WALLS SHALL BE EXTENDED TO THE TOP OF THE WALLS.
5. ALL SPLICES IN REINFORCING SHALL BE LAPPED 48 BAR DIAMETER.

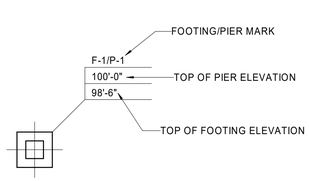
TECHNICAL TERMS

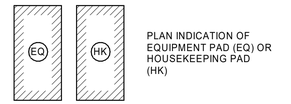
ABBREVIATION	TERM
ARCH	ARCHITECTURAL
B TO B	BACK TO BACK
BP	BASEPLATE
CJ	CONTROL JOINT
CNJ	CONTRACTION JOINT
CONN	CONNECTION
CORP	CORPORATION
C/L	CENTER LINE
CMU	CONCRETE MASONRY UNIT
DWL	DOWEL
DWGS	DRAWINGS
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
EMBD	EMBEDMENT
EOD	EDGE OF DECK
ES	EACH SIDE
GA	GAGE, GUAGE
GR	GUARD RAIL
HPT	HIGH POINT
HSS	HOLLOW STRUCTURAL SECTION
IJ	ISOLATION JOINT
JT	JOINT
MC	MOMENT CONNECTION
NIC	NOT IN CONTRACT
OPP	OPPOSITE
PL	PLATE
PMF	PREMOLDED FILLER
PROJ	PROJECTION
SPA	SPACES
STA	STATION
STL	STEEL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
VB	VERTICAL BRACE
WWR	WELDED WIRE REINFORCING

LEGEND

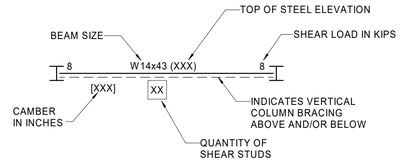
MATCH LINE
NEW WORK
EXISTING TO REMAIN
EXISTING TO BE DEMOLISHED
W14x43 — SLANTED TEXT INDICATES EXISTING STRUCTURES AND/OR FEATURES
GUARDRAIL AND TOE PLATE
GUARDRAIL
TOE PLATE
KNEE BRACE
KB
INDICATES SLIDE BEARING CONNECTION
INDICATES MOMENT CONNECTION







PLAN INDICATION OF EQUIPMENT PAD (EQ) OR HOUSEKEEPING PAD (HK)



BEAM DESIGNATION
(FRAMING PLANS)

CHANGE IN SLOPE
4" — SLAB DEPRESSION
FD — FLOOR DRAIN
FD — DISHED FLOOR DRAIN
FD — FOUNDATION DRAIN AND DIRECTION OF SLOPE

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA — ALBERT WILLIAM DUCKER JR — Lic. No. 0402042778 — PROFESSIONAL ENGINEER — 6/10/20

VRE

STV 100 Years
STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

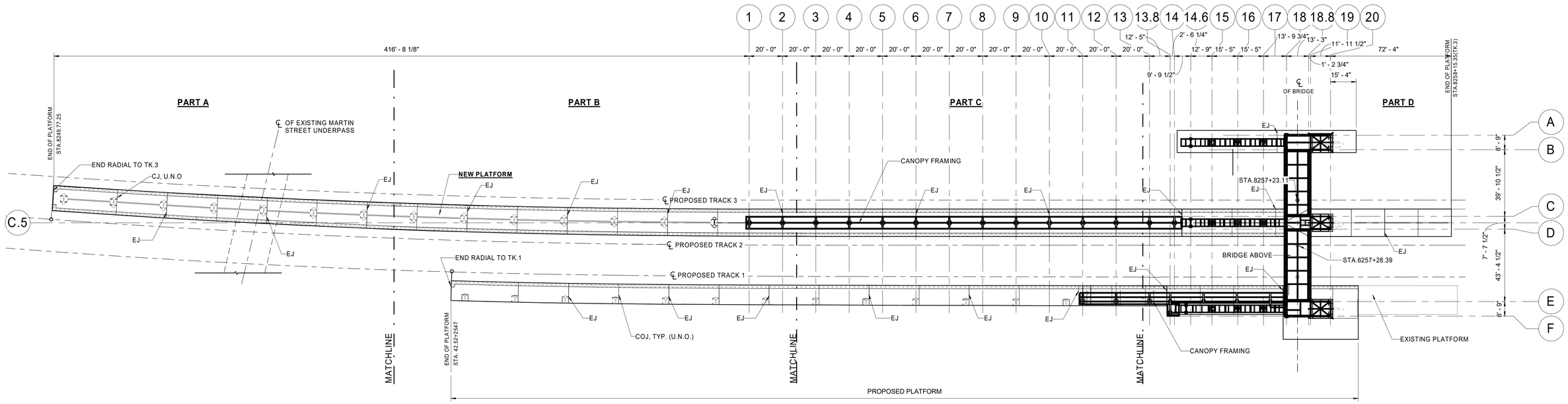
QUANTICO STATION

GENERAL STRUCTURAL NOTES AND LEGEND

IFB NO: IFB-020-019
DRAWING NO: S-001
SCALE: N.T.S.
SHEET NO: 98 OF 202

SHEET NOTES:

1. FOR GENERAL STRUCTURAL NOTES AND LEGEND, SEE SHEET S-001.
2. FOR TRENCH DRAIN LOCATION, SEE SHEETS S-101, S-102, S-103 & S-104.

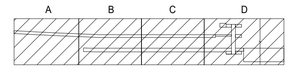


KEY PLAN

1 / S-100

1" = 30'-0"

30' 15' 0 30'



KEY PLAN

INVITATION FOR BID
NOT FOR CONSTRUCTION

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	0	06/10/20			INVITATION FOR BID
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COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DOCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

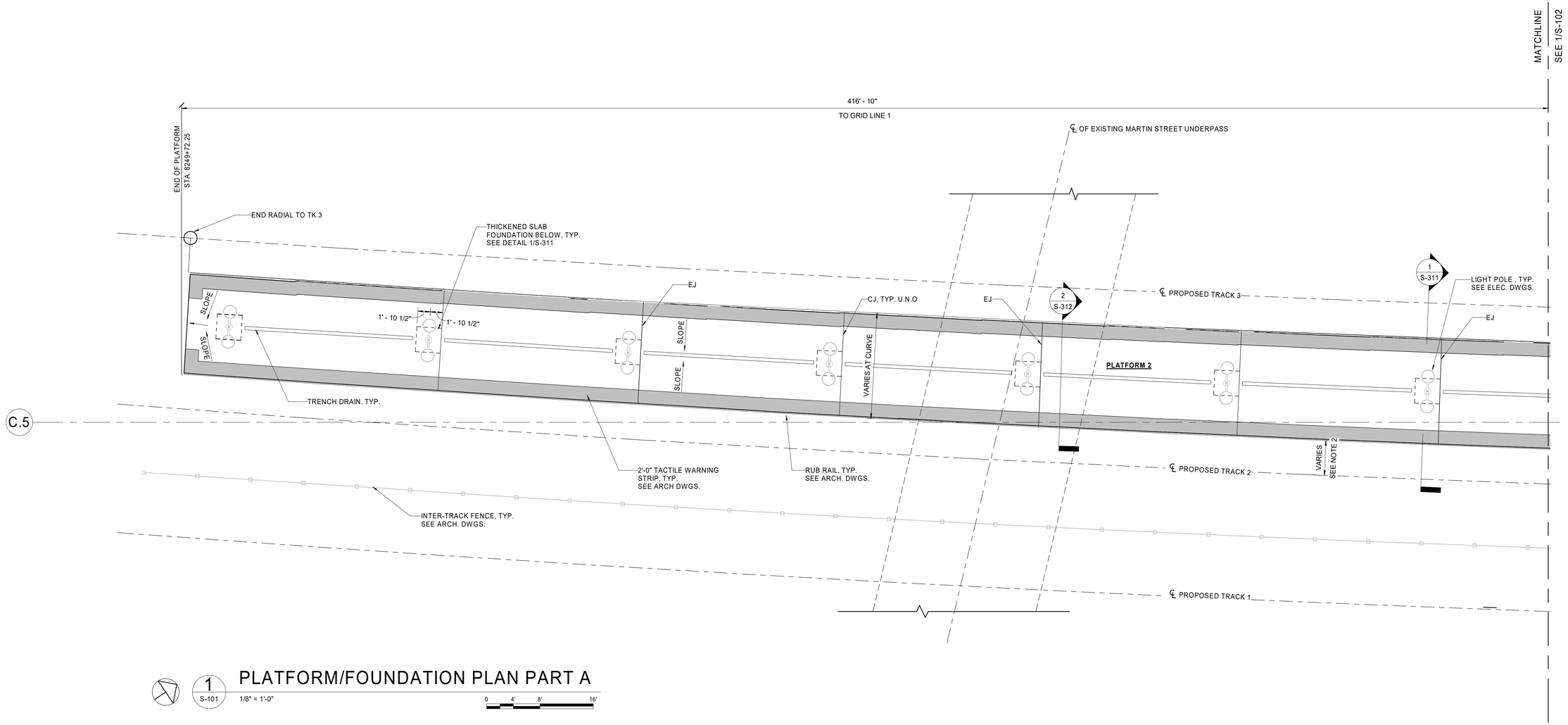
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QUANTICO STATION

KEY PLAN

IFB NO: IFB-020-019
DRAWING NO: S-100
SCALE: 1" = 30'-0"
SHEET NO: 99 OF 202



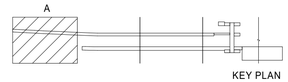
1 S-101 PLATFORM/FOUNDATION PLAN PART A

1/8" = 1'-0"

0 4' 8' 16'

SHEET NOTES:

1. FOR GENERAL STRUCTURAL NOTES AND LEGEND, SEE SHEET S-001
2. DIMENSION VARIES IN CURVE, SEE SHEET S-201, S-202, AND S-203 FOR DETAILS AND ELEVATIONS



KEY PLAN

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6/10/20

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QUANTICO STATION

PLATFORM FOUNDATION PLAN
PART A

IFB NO: IFB-020-019
DRAWING NO: S-101
SCALE: 1/8" = 1'-0"
SHEET NO: 100 OF 202

MATCHLINE SEE 1/S-101

MATCHLINE SEE 1/S-103

1

2

416' - 10"

TO EDGE OF PLATFORM

20' - 0"

20' - 0"

EXISTING FENCE, TYP.

3 S-311

THICKENED SLAB FOUNDATION BELOW, TYP. SEE DETAIL 1/S-311

LIGHT POLE, TYP. SEE ELEC. DWGS.

RUB RAIL, TYP. SEE ARCH. DWGS.

MANHOLE SEE CIVIL DWGS.

CJ, U.N.O

HSS10X10X5/8, TYP.

BP5, BELOW TYP. AT CANOPY COL.

EJ

℄ PROPOSED OF TRACK 3

CJ, TYP. U.N.O

TRENCH DRAIN, TYP.

EJ

SEE NOTE 2

VARIES TYP.

VARIES AT CURVE TYP.

SLOPE

SLOPE

PLATFORM 2

2 S-316

C.5

VARIES SEE NOTE

℄ PROPOSED OF TRACK 2

CONC. PIER BELOW TYP. SEE 2/S-311

INTER-TRACK FENCE, TYP. SEE ARCH DWGS.

RUB RAIL, TYP. SEE ARCH. DWGS.

2'-0" TACTILE WARNING STRIP, TYP. SEE ARCH. DWGS.

RUB RAIL, TYP. SEE ARCH. DWGS.

℄ PROPOSED OF TRACK 1.

2'-0" TACTILE WARNING STRIP, TYP. SEE ARCH

EJ

COJ, U.N.O

EJ

EJ

1 S-312

END RADIAL TO TK. 1

SLOPE (TYP)

PLATFORM 1

SEE CIVIL DRAWINGS FOR RAMP LOCATION AND DETAILS

THICKENED SLAB FOUNDATION BELOW, TYP. SEE DETAIL 1/S-312

LIGHT POLE, TYP. SEE ELEC.

END OF PLATFORM STA. 4252+2547

1 S-102 PLATFORM/FOUNDATION PLAN PART B

1/8" = 1'-0"

0 4' 8' 16'

SHEET NOTES:

1. FOR GENERAL STRUCTURAL NOTES AND LEGEND, SEE SHEET S-001
2. DIMENSION VARIES IN CURVE, SEE SHEET S-201, S-202, AND S-203 FOR DETAILS AND PLATFORM ELEVATIONS

B

KEY PLAN

INVITATION FOR BID
NOT FOR CONSTRUCTION

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DESIGNED BY: RB

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DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
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QUANTICO STATION

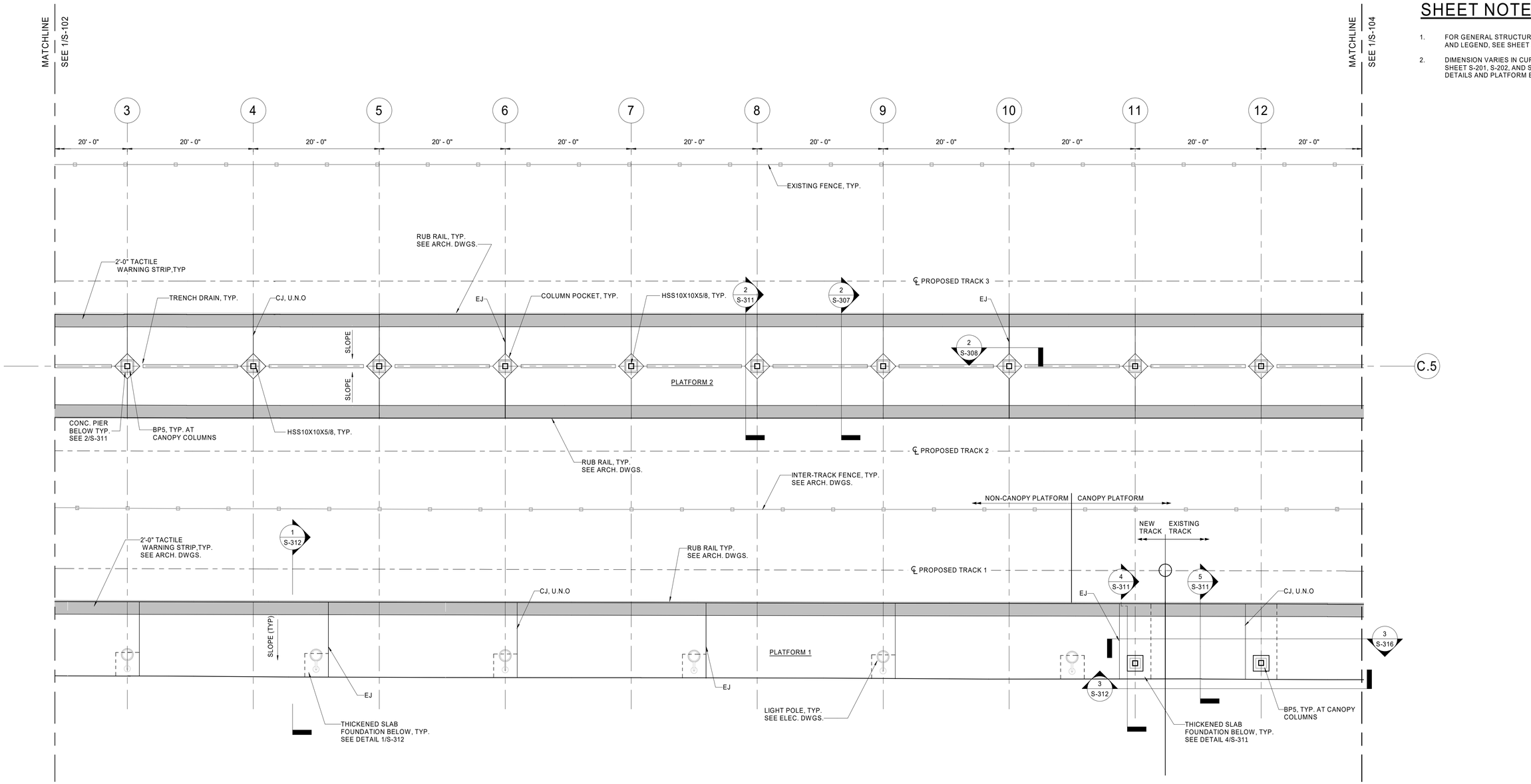
PLATFORM FOUNDATION PLAN PART B

IFB NO: IFB-020-019

DRAWING NO: S-102

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

SHEET NO: 101 OF 202



SHEET NOTES:

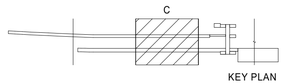
1. FOR GENERAL STRUCTURAL NOTES AND LEGEND, SEE SHEET S-001.
2. DIMENSION VARIES IN CURVE, SEE SHEET S-201, S-202, AND S-203 FOR DETAILS AND PLATFORM ELEVATIONS.

1 S-103

PLATFORM/FOUNDATION PLAN PART C

1/8" = 1'-0"

0 4' 8' 16'



KEY PLAN

INVITATION FOR BID
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APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
CALEB WILLIAM DECKER JR.
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

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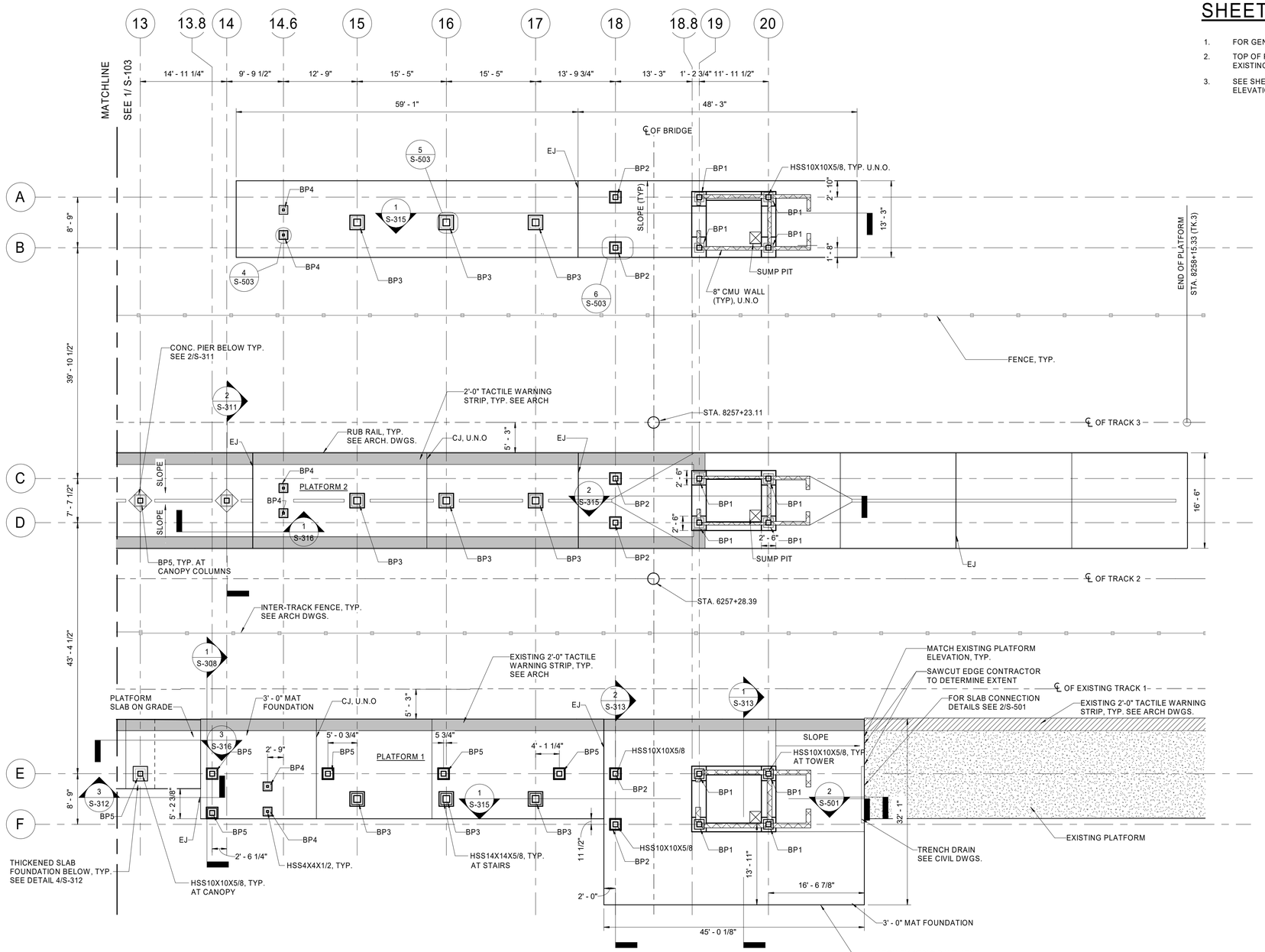
QUANTICO STATION

PLATFORM FOUNDATION PLAN PART C

IFB NO: IFB-020-019
DRAWING NO: S-103
SCALE: 1/8" = 1'-0"
SHEET NO: 102 OF 202

SHEET NOTES:

1. FOR GENERAL STRUCTURAL NOTES AND LEGEND, SEE SHEET S-001.
2. TOP OF PLATFORM 1 FOUNDATION TO BE ALIGNED WITH TOP OF EXISTING PLATFORM FOUNDATION (TO BE FIELD VERIFIED)
3. SEE SHEET S-201, S-202, AND S-203 FOR DETAILS AND PLATFORM ELEVATIONS.



1 S-104 PLATFORM/FOUNDATION PLAN PART D

1" = 10'-0"

10' 5' 0 10'



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PROFESSIONAL ENGINEER
6/10/20

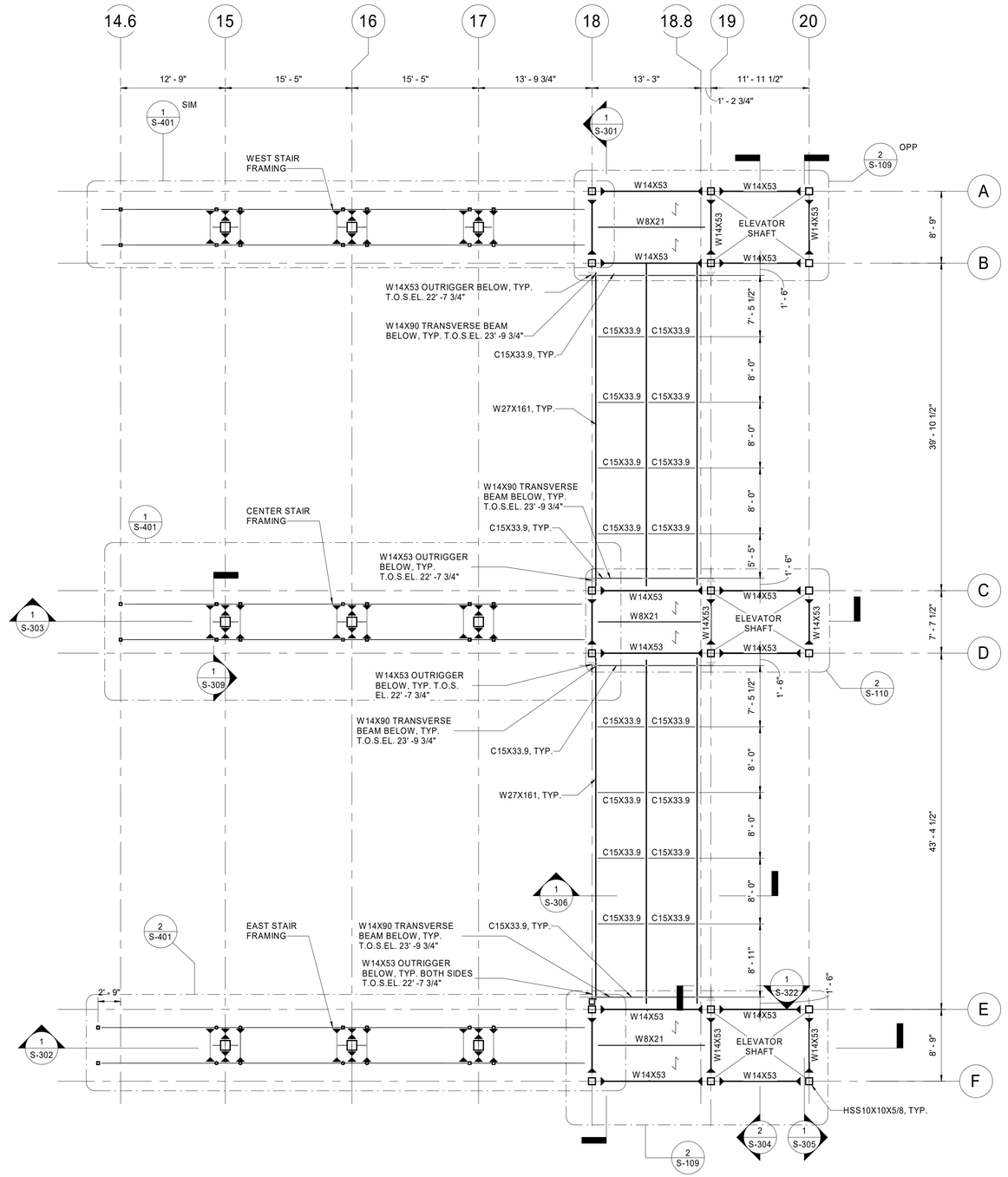
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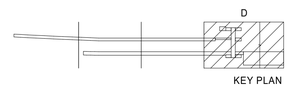
PLATFORM FOUNDATION PLAN PART D

IFB NO: IFB-020-019
DRAWING NO: S-104
SCALE: 1" = 10'-0"
SHEET NO: 103 OF 202



SHEET NOTES:

1. FOR GENERAL STRUCTURAL NOTES AND LEGEND, SEE SHEET S-001.
2. ⟷ INDICATES SPAN OF METAL DECK.
3. BRIDGE T.O.S. EL. 26'-4" U.N.O.



1 S-105 BRIDGE LEVEL FLOOR FRAMING PLAN

1/8" = 1'-0"

0 4' 8' 16'

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COMMONWEALTH OF VIRGINIA
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Lic. No. 0402042778
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6/10/20

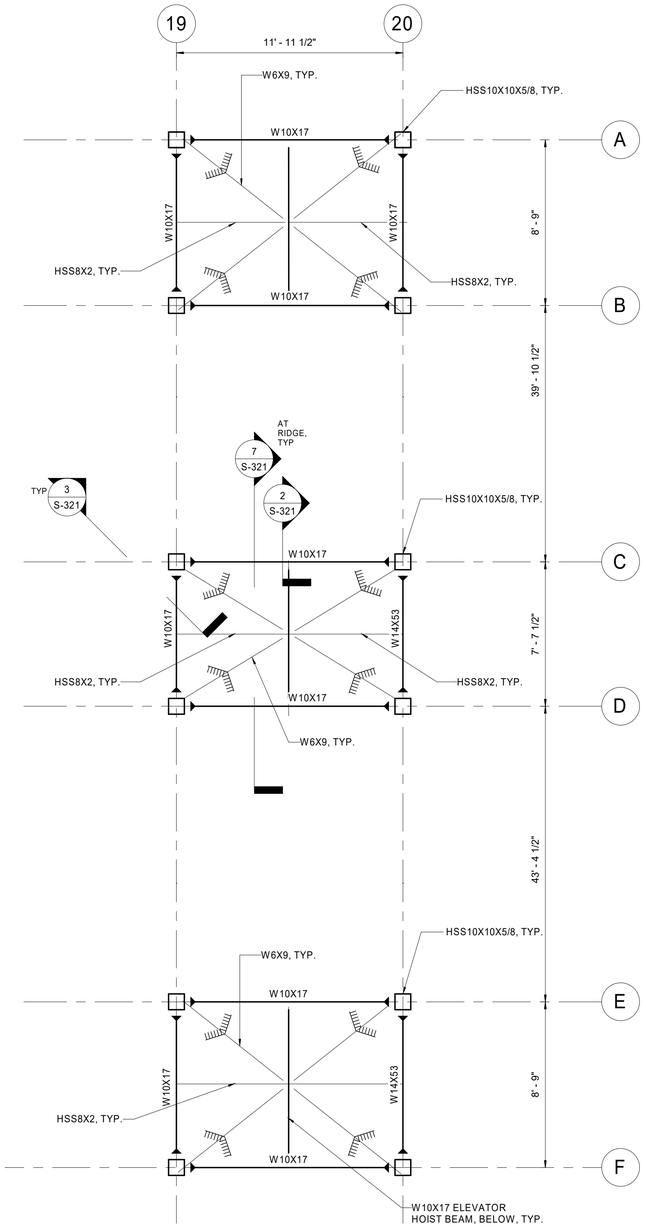
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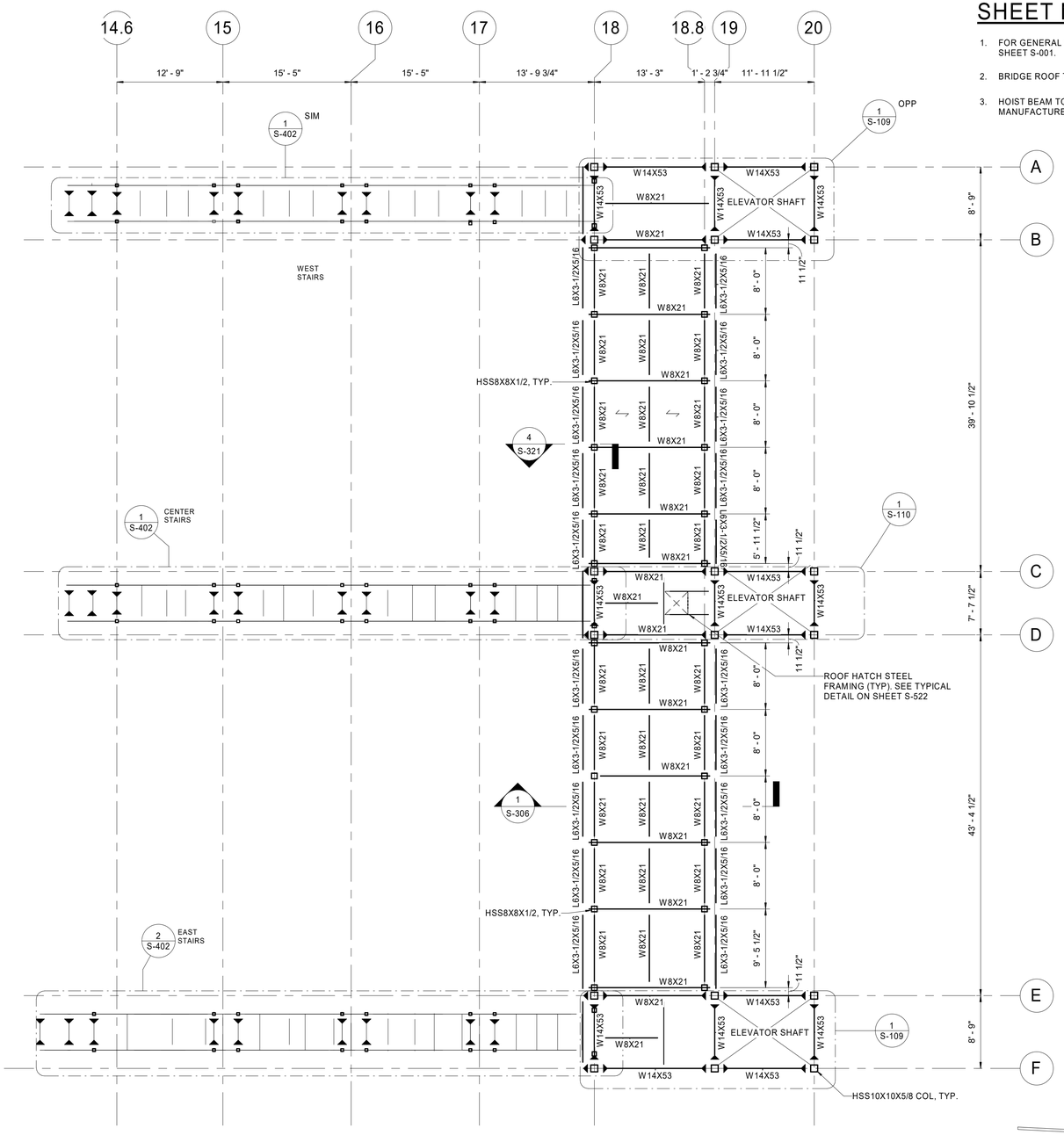
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QUANTICO STATION

TOWER-BRIDGE FLOOR FRAMING PLAN

IFB NO: IFB-020-019
DRAWING NO: S-105
SCALE: 1/8" = 1'-0"
SHEET NO: 104 OF 202



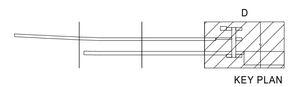


SHEET NOTES:

1. FOR GENERAL STRUCTURAL NOTES AND LEGEND, SEE SHEET S-001.
2. BRIDGE ROOF T.O.S. EL. 38'-0" U.N.O.
3. HOIST BEAM TO BE LOCATED BY THE ELEVATOR MANUFACTURER.

1 S-106 TOWER ROOF FRAMING PLAN
1/4" = 1'-0"
0 2' 4' 8'

2 S-106 BRIDGE ROOF FRAMING PLAN
1/8" = 1'-0"
0 4' 8' 16'



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	0	06/10/20			INVITATION FOR BID
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DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
GILBERT WILLIAM BUCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

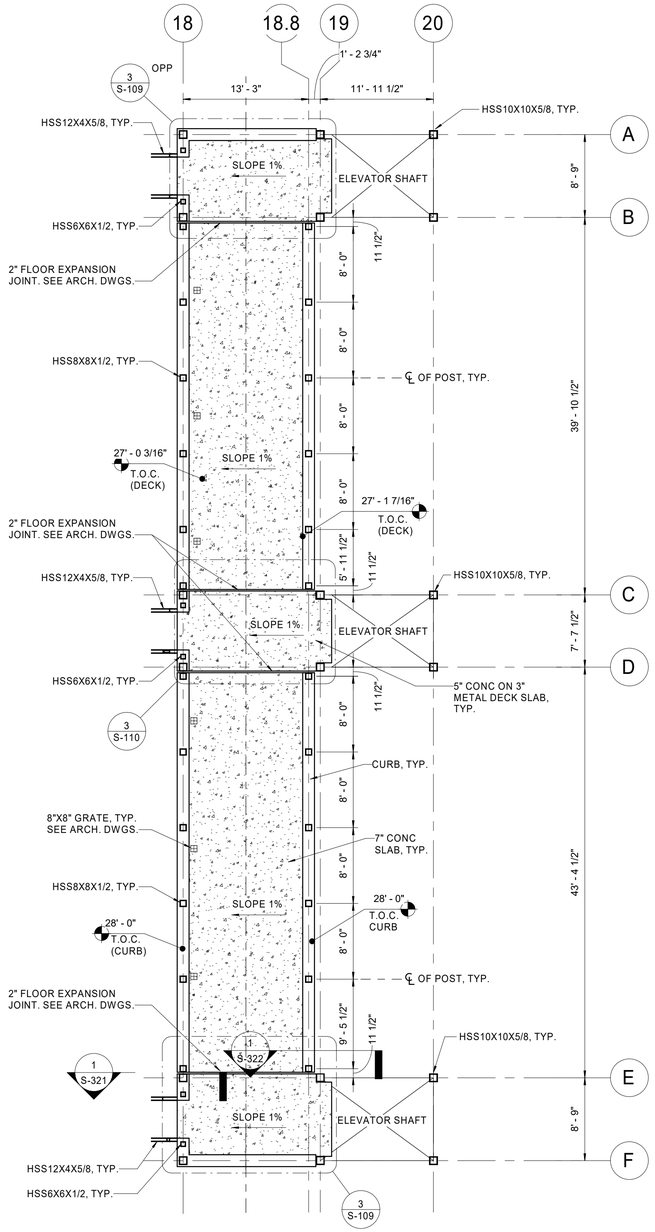
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QUANTICO STATION

TOWER -BRIDGE ROOF FRAMING PLANS

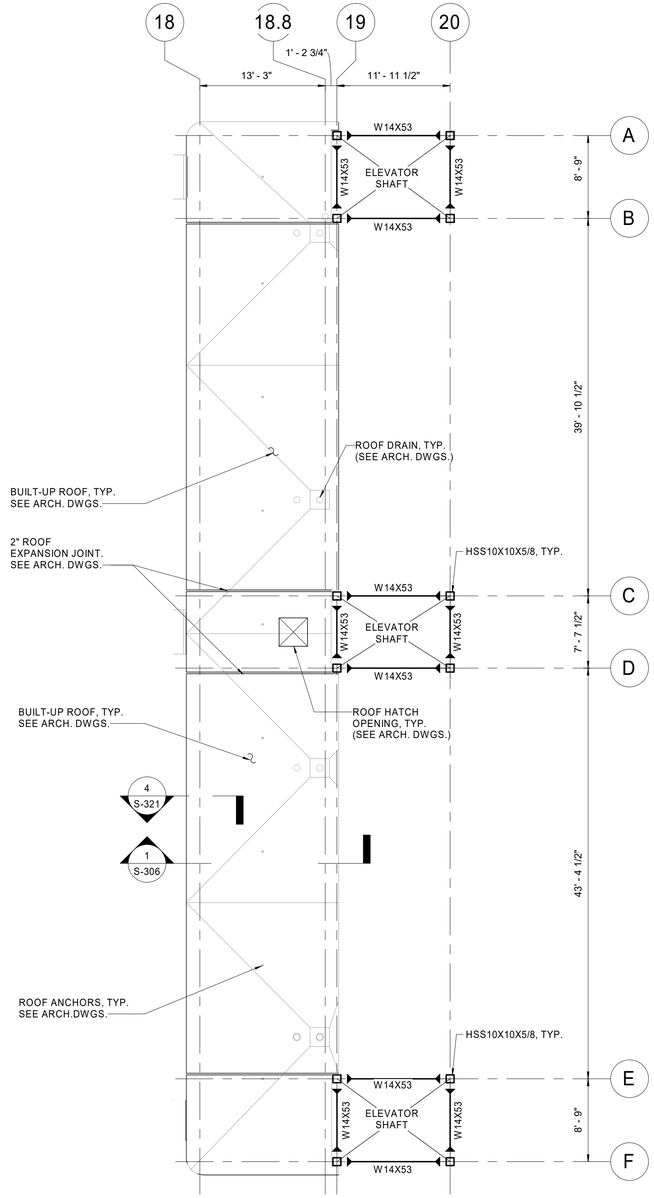
IFB NO: IFB-020-019
DRAWING NO: S-106
SCALE: AS INDICATED
SHEET NO: 105 OF 202



1 S-107 BRIDGE FLOOR SLAB PLAN

1/8" = 1'-0"

0 4' 8' 16'



2 S-107 BRIDGE ROOF SLAB PLAN

1/8" = 1'-0"

0 4' 8' 16'

SHEET NOTES:

1. FOR GENERAL STRUCTURAL NOTES AND LEGEND, SEE SHEET S-001.
2. BRIDGE FLOOR SLAB FINISH: BROOM FINISH PERPENDICULAR TO FLOOR DRAINS
3. BRIDGE ROOF SLAB FINISH: TROWEL FINISH



KEY PLAN

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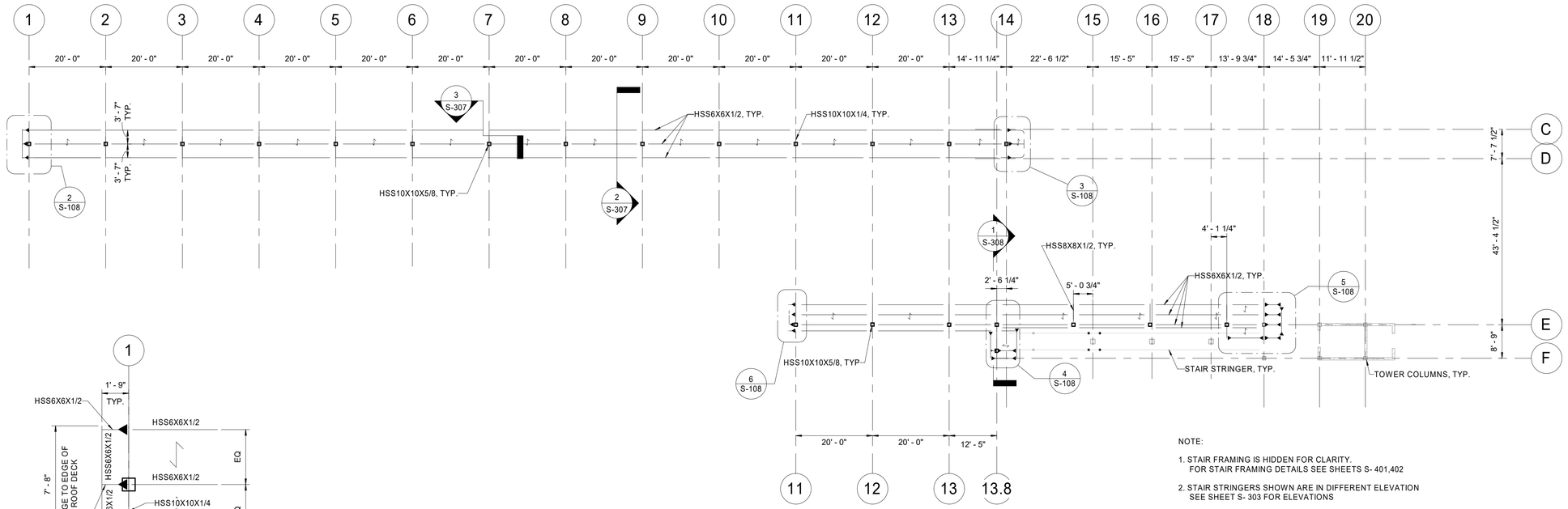
QUANTICO STATION

BRIDGE ROOF AND FLOOR SLABS

IFB NO: IFB-020-019
DRAWING NO: S-107
SCALE: 1/8" = 1'-0"
SHEET NO: 106 OF 202

SHEET NOTES:

1. FOR GENERAL STRUCTURAL NOTES AND LEGEND, SEE SHEET S-001.
2. FOR STEEL FRAMING AND COLUMNS FOR STAIRS, PEDESTRIAN BRIDGES, AND ELEVATOR TOWERS, SEE PLANS S-105 AND S-106.
3. FOR ROOF EXPANSION JOINT DETAILS AND LOCATIONS SEE ARCH DWGS.



NOTE:

1. STAIR FRAMING IS HIDDEN FOR CLARITY. FOR STAIR FRAMING DETAILS SEE SHEETS S- 401,402
2. STAIR STRINGERS SHOWN ARE IN DIFFERENT ELEVATION SEE SHEET S- 303 FOR ELEVATIONS

1 S-108 CANOPY ROOF FRAMING PLAN

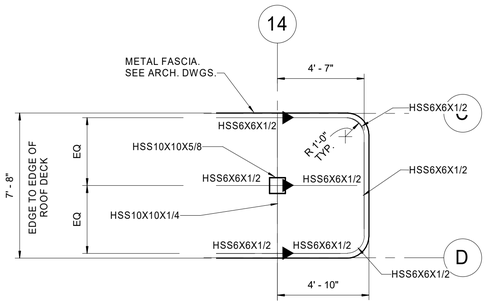
1/16" = 1'-0"

0 8' 16' 32'

2 S-108 ENLARGED FRAMING PLAN

1/4" = 1'-0"

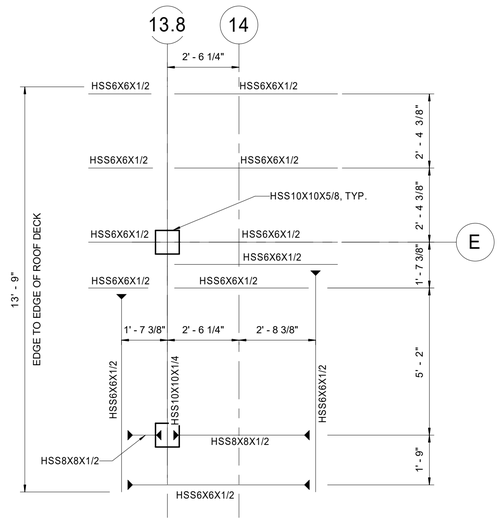
0 2' 4' 8'



3 S-108 ENLARGED FRAMING PLAN

1/4" = 1'-0"

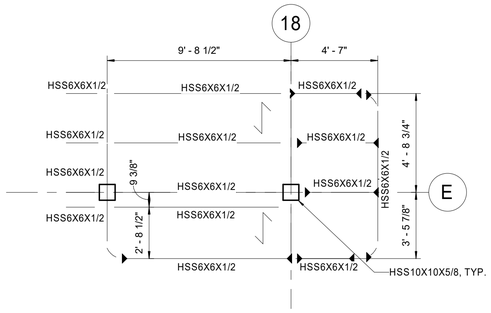
0 2' 4' 8'



4 S-108 ENLARGED FRAMING PLAN

3/8" = 1'-0"

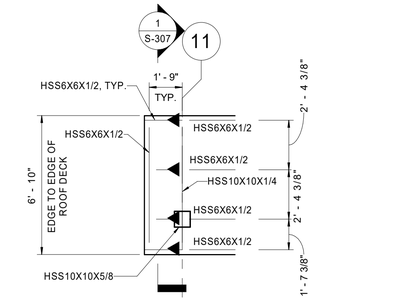
0 2' 4' 6'



5 S-108 ENLARGED FRAMING PLAN

1/4" = 1'-0"

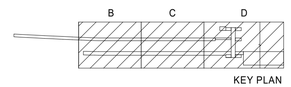
0 2' 4' 8'



6 S-108 ENLARGED FRAMING PLAN

1/4" = 1'-0"

0 2' 4' 8'



INVITATION FOR BID
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DESIGNED BY: RB
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DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DUCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

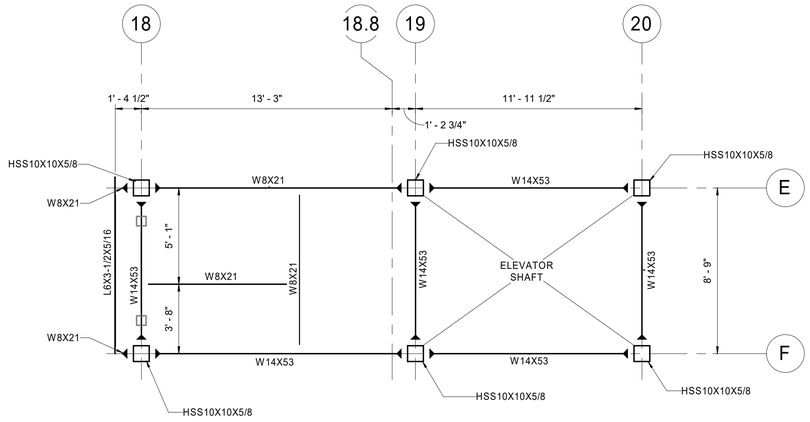
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QUANTICO STATION

CANOPY ROOF FRAMING PLAN

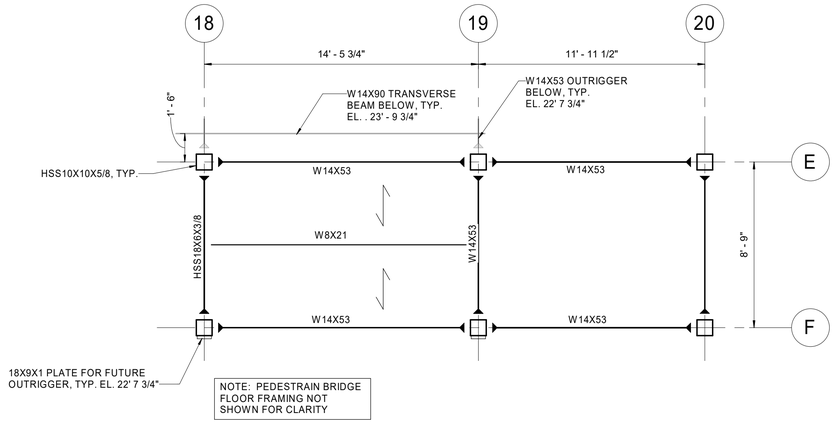
IFB NO: IFB-020-019
DRAWING NO: S-108
SCALE: AS INDICATED
SHEET NO: 107 OF 202



1 S-109 ENLARGED TOWER 1 & 3 ROOF FRAMING PLAN

1/4" = 1'-0"

0 2' 4' 8'



2 S-109 ENLARGED TOWER 1 & 3 BRIDGE LEVEL FRAMING PLAN

1/4" = 1'-0"

0 2' 4' 8'

3 S-109 ENLARGED TOWER 1 & 3 BRIDGE LEVEL SLAB PLAN

1/4" = 1'-0"

0 2' 4' 8'

4 S-109 ENLARGED TOWER 1 & 3 BRIDGE LEVEL SLAB PLAN

1 1/2" = 1'-0"

0 6" 1' 1'6"

INVITATION FOR BID
NOT FOR CONSTRUCTION

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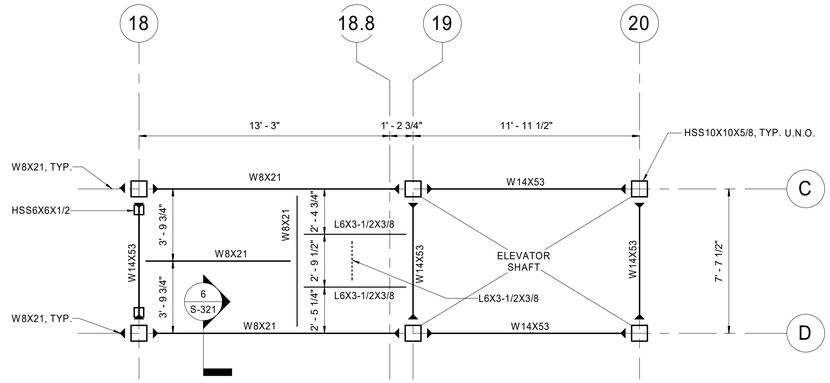
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QUANTICO STATION

ENLARGED TOWER PLANS (SHEET 1 OF 2)

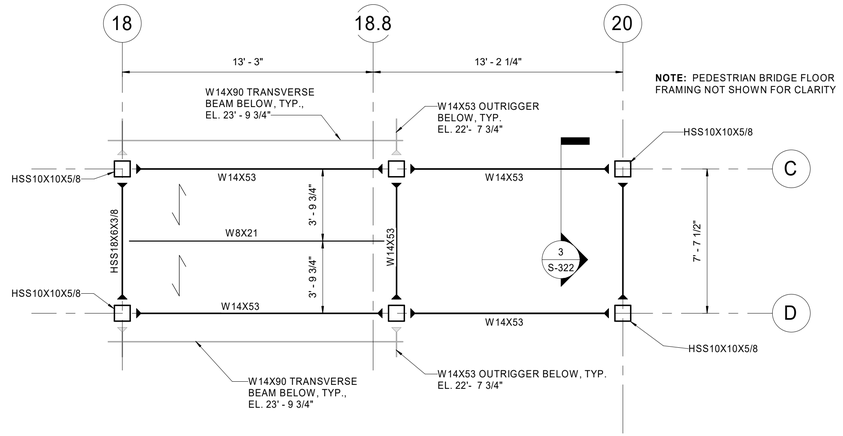
IFB NO: IFB-020-019
DRAWING NO: S-109
SCALE: AS INDICATED
SHEET NO: 108 OF 202



1 ENLARGED TOWER 2 ROOF LEVEL FRAMING PLAN

S-110 — 1/4" = 1'-0"

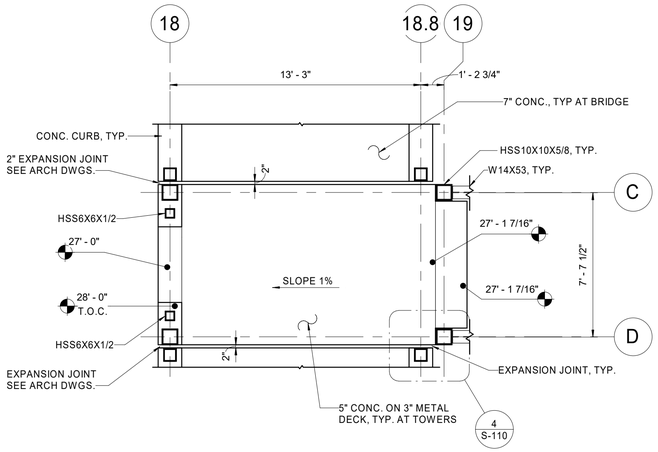
0 2' 4' 8'



2 ENLARGED TOWER 2 BRIDGE LEVEL FRAMING PLAN

S-110 — 1/4" = 1'-0"

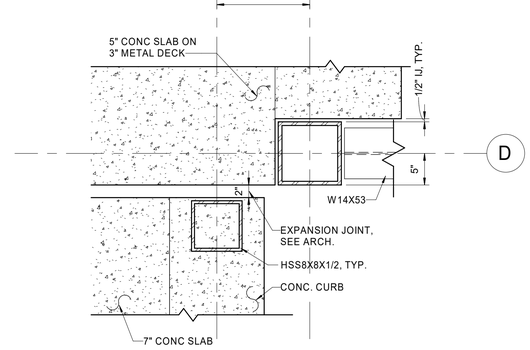
0 2' 4' 8'



3 ENLARGED TOWER 2 BRIDGE LEVEL SLAB PLAN

S-110 — 1/4" = 1'-0"

0 2' 4' 8'



4 TOWER 2 BRIDGE LEVEL ENLARGED SLAB PLAN

S-110 — 1" = 1'-0"

0 6" 1' 2'

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DOCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

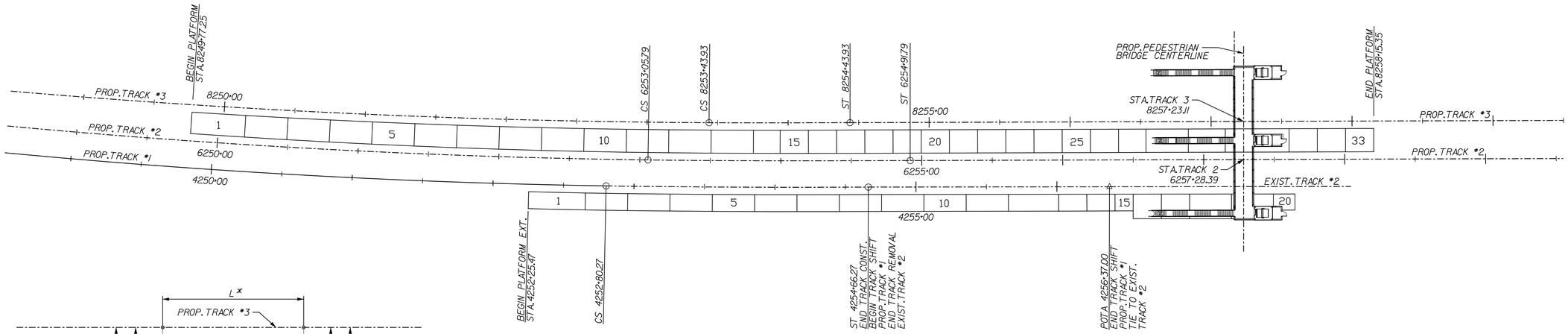
VRE

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STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

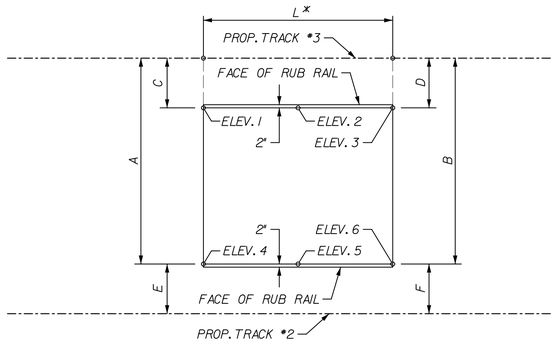
QUANTICO STATION

ENLARGED TOWER PLANS (SHEET 2 OF 2)

IFB NO: IFB-020-019
DRAWING NO: S-110
SCALE: AS INDICATED
SHEET NO: 109 OF 202

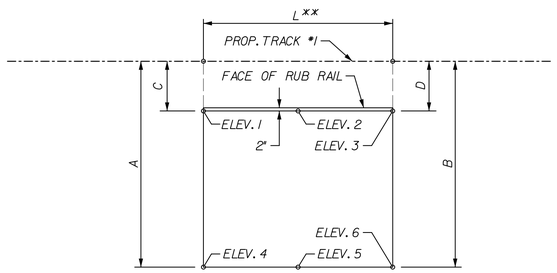


PLATFORM SLAB LAYOUT



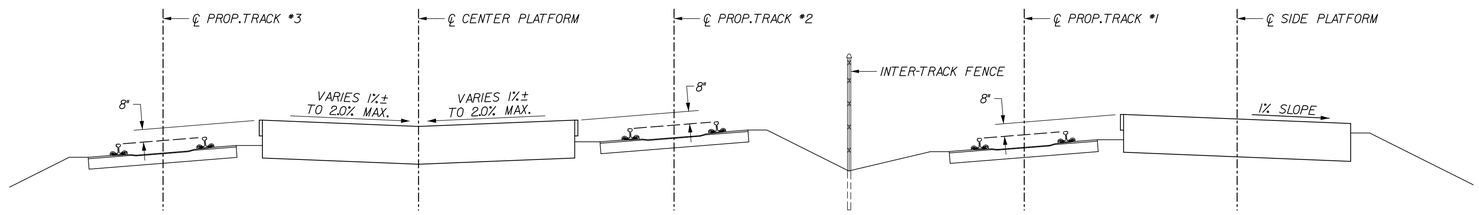
PLATFORM #2 DETAILS

* MEASURED ALONG CENTERLINE OF TRACK #3



PLATFORM # 1 DETAILS

** MEASURED ALONG CENTERLINE OF TRACK #1



TYPICAL PLATFORM SECTION (CURVED TRACK)

NOTES:

1. PLATFORM EDGE MAY BE CONSTRUCTED ON SHORT CHORD FOR EACH PANEL.
2. THE 2.0% MAX.SLOPE ON PLATFORM IS THE ABSOLUTE UPPER LIMIT OF SLOPE AND THE CONTRACTOR SHALL ACCOUNT FOR CONSTRUCTION TOLERANCES IN FORMING AND FINISHING SO AS NOT TO EXCEED THIS MAXIMUM LIMIT.

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

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STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

PLATFORM SLAB PLAN

IFB NO: IFB-020-019
DRAWING NO: S-201
SCALE: AS SHOWN
SHEET NO: 110 OF 202

$$FILE$$
$$DATE$$
$$TIME$$

CENTER PLATFORM

		PLATFORM DIMENSIONS *		TRACK CLEARANCE **				ELEVATION - EDGE OF CONCRETE SLAB					
PANEL NO.	L ***	A	B	C	D	E	F	1	2	3	4	5	6
1	38'-2 3/8"	20'-3 1/8"	20'-5 1/2"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	33.02	33.06	33.08	33.04	33.07	33.10
2	30'-0"	20'-5 1/2"	20'-7 3/8"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	33.08	33.10	33.12	33.10	33.11	3313
3	30'-0"	20'-7 3/8"	20'-9"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	33.12	33.14	33.16	33.13	33.14	33.15
4	30'-0"	20'-9"	20'-10 1/2"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	33.16	33.17	33.19	33.15	33.17	33.18
5	30'-0"	20'-10 1/2"	20'-11 3/4"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	33.19	33.21	33.23	33.18	33.19	33.21
6	30'-0"	20'-11 3/4"	21'-0"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	33.23	33.24	33.26	33.21	33.22	33.23
7	30'-0"	21'-0"	21'-1 7/8"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	33.26	33.28	33.30	33.23	33.25	22.26
8	30'-0"	21'-1 7/8"	21'-2 3/4"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	33.30	33.31	33.33	33.26	33.27	33.29
9	30'-0"	21'-2 3/4"	21'-3 1/2"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	33.33	33.35	33.37	33.29	33.30	33.31
10	30'-0"	21'-3 1/2"	21'-4 1/8"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	33.37	33.38	33.40	33.31	33.33	33.34
11	30'-0"	21'-4 1/8"	21'-4 7/8"	5'-4 3/4"	5'-4 3/4"	5'-4 3/4"	5'-4 5/8"	33.40	33.42	33.44	33.34	33.35	33.37
12	30'-0"	21'-4 7/8"	21'-5 1/2"	5'-4 3/4"	5'-4 3/4"	5'-4 5/8"	5'-4 1/2"	33.44	33.45	33.47	33.37	33.39	33.40
13	30'-0"	21'-5 1/2"	21'-6 3/8"	5'-4 3/4"	5'-4 1/2"	5'-4 1/2"	5'-4 3/8"	33.47	33.47	33.46	33.40	33.42	33.44
14	18'-11"	21'-6 3/8"	21'-7 1/8"	5'-4 1/2"	5'-4 3/8"	5'-4 3/8"	5'-3 1/4"	33.46	33.46	33.46	33.44	33.45	33.46
15	20'-0"	21'-7 1/8"	21'-7 5/8"	5'-4 3/8"	5'-4 1/4"	5'-3 1/4"	5'-3 1/8"	33.46	33.46	33.46	33.46	33.47	33.48
16	20'-0"	21'-7 5/8"	21'-8 1/4"	5'-4 1/4"	5'-4"	5'-4 1/8"	5'-4"	33.46	33.46	33.45	33.48	33.50	33.51
17	20'-0"	21'-8 1/4"	21'-8 1/2"	5'-4"	5'-3 7/8"	5'-4"	5'-3 7/8"	33.45	33.45	33.47	33.51	33.52	33.53
18	20'-0"	21'-8 1/2""	21'-9"	5'-3 7/8"	5'-3 5/8"	5'-3 7/8"	5'-3 3/4"	33.47	33.48	33.49	33.53	33.54	33.55
19	20'-0"	21'-9"	21'-9"	5'-3 5/8"	5'-3 1/2"	5-3 3/4"	5'-3 5/8"	33.49	33.50	33.51	33.55	33.56	33.57
20	20'-0"	21'-9"	21'-9"	5'-3 1/2"	5'-3 1/4"	5-3 5/8"	5'-3 1/2"	33.51	33.52	33.54	33.57	33.58	33.59
21	20'-0"	21'-9"	21'-9"	5'-3 1/4"	5'-3 1/8"	5'-3 1/2"	5'-3 3/8"	33.54	33.55	33.56	33.59	33.60	33.61
22	20'-0"	21'-9"	21'-9"	5'-3 1/8"	5'-3"	5'-3 3/8"	5'-3 1/4"	33.56	33.57	33.58	33.61	33.62	33.63
23	20'-0"	21'-9"	21'-9"	5'-3"	5'-3"	5'-3 1/4"	5'-3 1/8"	33.58	33.59	33.61	33.63	33.64	33.64
24	20'-0"	21'-9"	21'-9"	5'-3"	5'-3"	5'-3 1/8"	5'-3"	33.61	33.62	33.63	33.64	33.65	33.66
25	20'-0"	21'-9"	21'-9"	5'-3"	5'-3"	5'-3"	5'-3"	33.63	33.64	33.65	33.66	33.67	33.68
26	20'-0"	21'-9"	21'-9"	5'-3"	5'-3"	5'-3"	5'-3"	333.65	33.66	33.68	33.68	33.69	33.70
27	19'-5 1/4"	21'-9"	21'-9"	5'-3"	5'-3"	5'-3"	5'-3"	33.68	33.69	33.70	33.70	33.71	33.71
28	30'- 1 1/8"	21'-9"	21'-9"	5'-3"	5'-3"	5'-3"	5'-3"	33.70	33.72	33.73	33.71	33.73	33.74
29	26'-2"	21'-9"	21'-9"	5'-3"	5'-3"	5'-3"	5'-3"	33.73	33.75	33.76	33.74	33.75	33.76
30	45'- 3 1/2"	21'-9"	21'-9"	5'-3"	5'-3"	5'-3"	5'-3"	33.76	33.79	33.82	33.76	33.78	33.81
31	20'-0"	21'-9"	21'-9"	5'-3"	5'-3"	5'-3"	5'-3"	33.82	33.82	33.83	33.80	33.81	33.82
32	20'-0"	21'-9"	21'-9"	5'-3"	5'-3"	5'-3"	5'-3"	33.83	33.84	33.84	33.82	33.83	33.84
33	20'-0"	21'-9"	21'-9"	5'-3"	5'-3"	5'-3"	5'-3"	33.84	33.85	33.85	33.84	33.84	33.85

* MEASURED ALONG PLATFORM JOINT (CJ OR EJ) FROM CENTERLINE OF TRACK #3 TO EDGE OF CONCRETE PLATFORM (ALONG THE RADIAL TO TRACK #3 CENTERLINE)

** MEASURED FROM EDGE OF CONCRETE PLATFORM TO CENTERLINE OF NEAREST TRACK (RADIAL TO TRACK #3 CENTERLINE)

*** MEASURED ALONG TRACK #3 CENTERLINE

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

PLATFORM ELEVATIONS
(SHEET 1 OF 2)

IFB NO: IFB-020-019
DRAWING NO: S-202
SCALE: AS SHOWN
SHEET NO: 111 OF 202

$$FILE$$
$$DATE$$
$$TIME$$

SIDE PLATFORM

		PLATFORM DIMENSIONS *		TRACK CLEARANCE **		ELEVATION - EDGE OF CONCRETE SLAB					
PANEL NO.	L ***	A	B	C	D	1	2	3	4	5	6
1	40' 2 3/4"	17'-4 3/4"	17'-4 3/4"	5'-4 3/4"	5'-4 3/4"	33.46	33.48	33.50	33.34	33.36	33.38
2	30'-0"	17'-4 3/4"	17'-4 3/4"	5'-4 3/4"	5'-4 3/4"	33.50	33.52	33.52	33.38	33.40	33.40
3	30'-0"	17'-4 3/4"	17'-4 1/2"	5'-4 3/4"	5'-4 1/2"	33.52	33.53	33.53	33.40	33.41	33.41
4	30'-0"	17'-4 1/2"	17'-4 3/8"	5'-4 1/2"	5'-4 3/8"	33.53	33.54	33.54	33.41	33.42	33.42
5	30'-0"	17'-4 3/8"	17'-4 1/8"	5'-4 3/8"	5'-3 1/8"	33.54	33.55	33.55	33.42	33.43	33.43
6	30'-0"	17'-4 1/8"	17'-4"	5'-4 1/8"	5'-4"	33.55	33.56	33.57	33.43	33.44	33.44
7	30'-0"	17'-4"	17'-3 3/4"	5'-4"	5'-3 3/4"	33.57	33.57	33.58	33.44	33.45	33.46
8	30'-0"	17'-3 3/4"	17'-3 5/8"	5'-3 3/4"	5'-3 5/8"	33.58	33.58	33.59	33.46	33.46	33.47
9	30'-0"	17'-3 5/8"	17'-3 3/8"	5'-3 5/8"	5'-3 3/8"	33.59	33.61	33.63	33.47	33.49	33.51
10	30'-0"	17'-3 3/8"	17'-3 1/4"	5'-3 3/8"	5'-3 1/4"	33.63	33.64	33.66	33.51	33.52	33.54
11	30'-0"	17'-3 1/4"	17'-3"	5'-3 1/4"	5'-3"	33.66	33.67	33.69	33.54	33.55	33.57
12	35'-7"	17'-3"	17'-3"	5'-3"	5'-3"	33.69	33.71	33.73	33.57	33.59	33.61
13	20'-0"	17'-3"	17'-3"	5'-3"	5'-3"	33.73	33.74	33.75	33.61	33.62	33.63
14	20'-0"	17'-3"	17'-3"	5'-3"	5'-3"	33.75	33.76	33.77	33.63	33.64	33.65
15	12'-11"	17'-3"	17'-3"	5'-3"	5'-3"	33.77	33.77	33.78	33.65	33.65	33.66
16	20'-0"	22'-6"	22'-6"	5'-3"	5'-3"	33.78	33.78	33.79	33.61	33.61	33.62
17	20'-0"	22'-6"	22'-6"	5'-3"	5'-3"	33.79	33.79	33.80	33.62	33.62	33.63
18	29'-8 1/2"	22'-6"	22'-6"	5'-3"	5'-3"	33.80	33.81	33.82	33.63	33.64	33.65
19	29'- 8 3/4"	****	****	5'-3"	5'-3"	33.82	33.83	33.85	****	****	****
20	15'-3 3/8" +/-	****	****	5'-3"	5'-0 5/8"	33.85	33.41	33.28	****	****	****

* MEASURED ALONG PLATFORM JOINT (CJ OR EJ) FROM CENTERLINE OF TRACK #1 TO EDGE OF CONCRETE PLATFORM (ALONG THE RADIAL TO TRACK #1 CENTERLINE)

** MEASURED FROM EDGE OF CONCRETE PLATFORM TO CENTERLINE OF TRACK #1 (RADIAL TO TRACK #1 CENTERLINE)

*** MEASURED ALONG TRACK #1 CENTERLINE

**** SEE ARCHITECTURAL PLANS

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

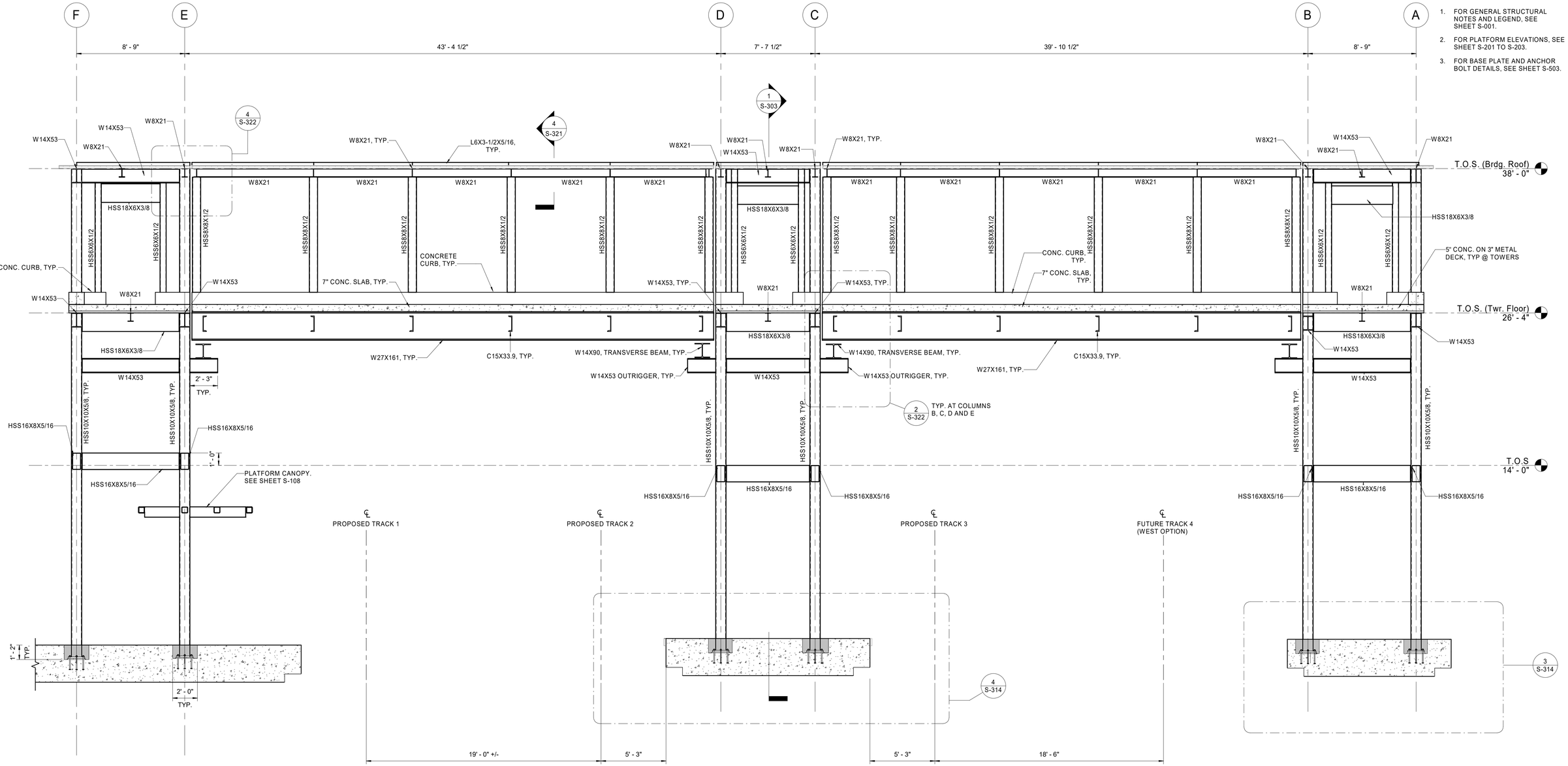
PLATFORM ELEVATIONS
(SHEET 2 OF 2)

IFB NO: IFB-020-019
DRAWING NO: S-203
SCALE: AS SHOWN
SHEET NO: 112 OF 202

$$FILE$$
$$DATE$$
$$TIME$$

SHEET NOTES:

1. FOR GENERAL STRUCTURAL NOTES AND LEGEND, SEE SHEET S-001.
2. FOR PLATFORM ELEVATIONS, SEE SHEET S-201 TO S-203.
3. FOR BASE PLATE AND ANCHOR BOLT DETAILS, SEE SHEET S-503.



1 S-301 TOWER- BRIDGE FRAMING SECTION AT COLUMN LINE 18

1/4" = 1'-0"

0 2' 4' 8'

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT E. DUCKER JR.
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

VRE

STV 100 Years
STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

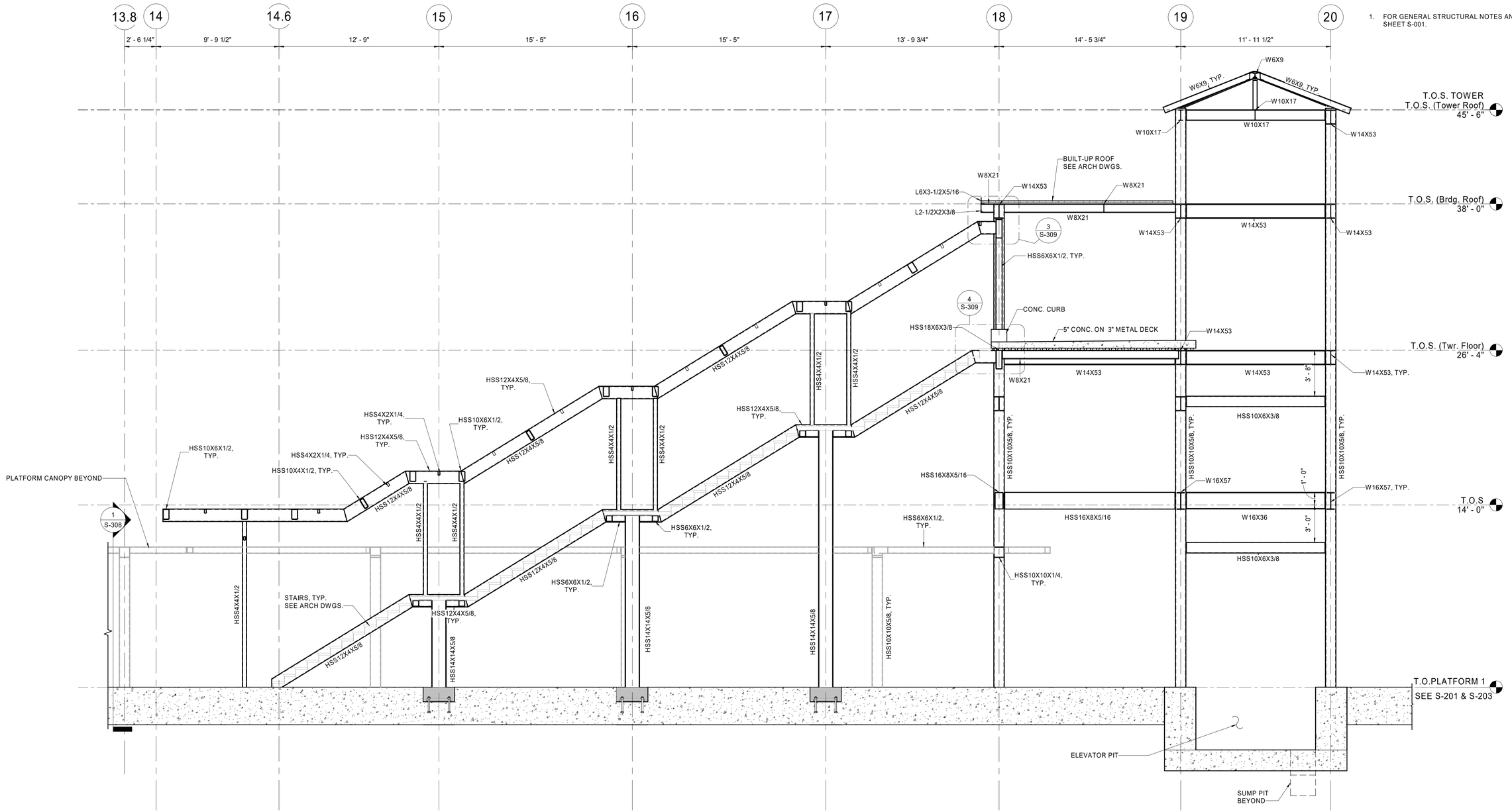
QUANTICO STATION

TOWER-BRIDGE FRAMING SECTION

IFB NO: IFB-020-019
DRAWING NO: S-301
SCALE: 1/4" = 1'-0"
SHEET NO: 113 OF 202

SHEET NOTES:

1. FOR GENERAL STRUCTURAL NOTES AND LEGEND, SEE SHEET S-001.



1 TOWER-BRIDGE FRAMING SECTION AT COLUMN LINE E.5

1/4" = 1'-0"

0 2' 4' 8'

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DOCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

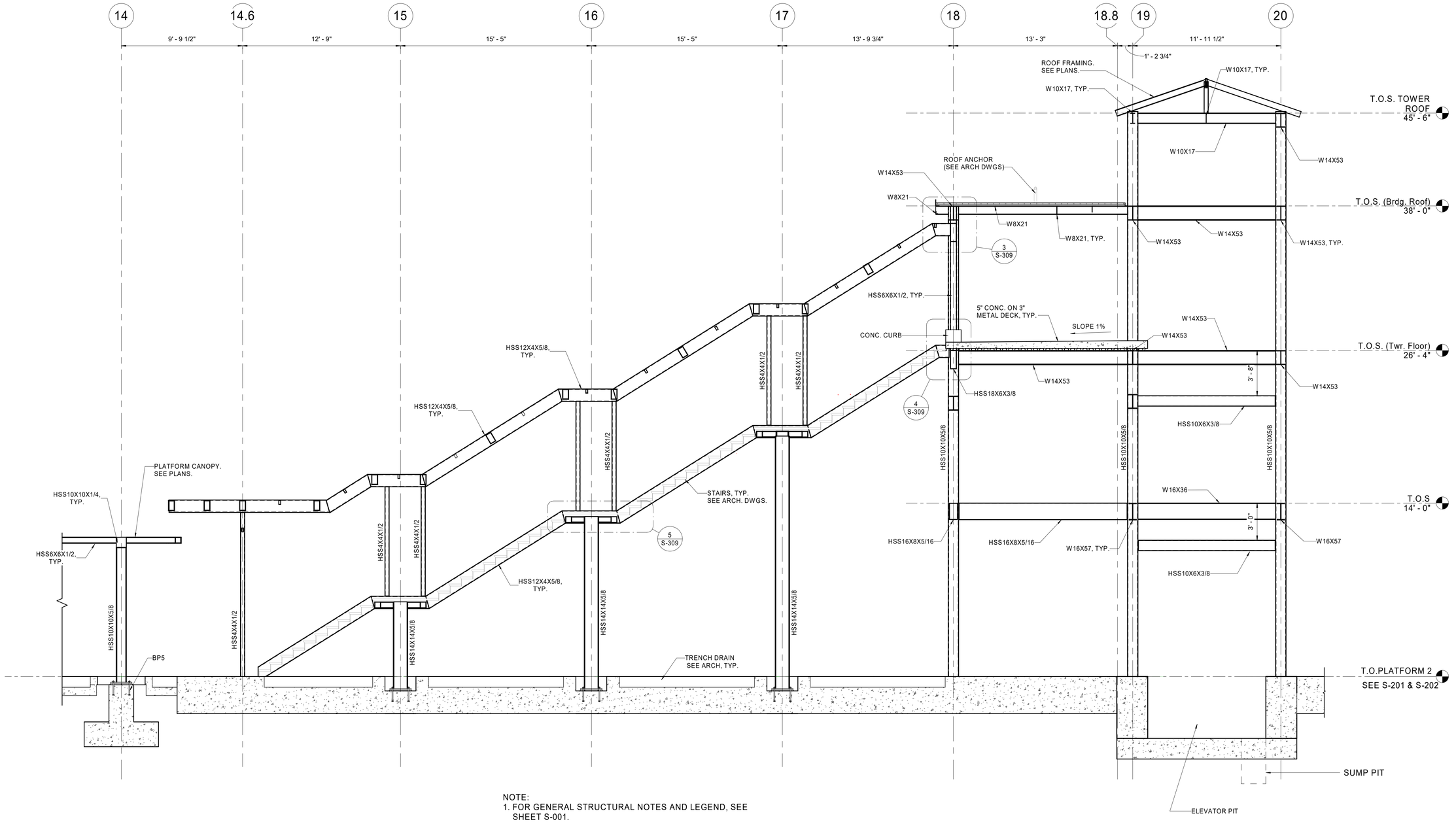
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STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

TOWER-BRIDGE FRAMING SECTIONS

IFB NO: IFB-020-019
DRAWING NO: S-302
SCALE: 1/4" = 1'-0"
SHEET NO: 114 OF 202



NOTE:
1. FOR GENERAL STRUCTURAL NOTES AND LEGEND, SEE SHEET S-001.

1 / S-303 TOWER-BRIDGE FRAMING SECTION AT COLUMN LINE C.5

1/4" = 1'-0"

0 2' 4' 8'

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DECKER JR VA
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

VRE

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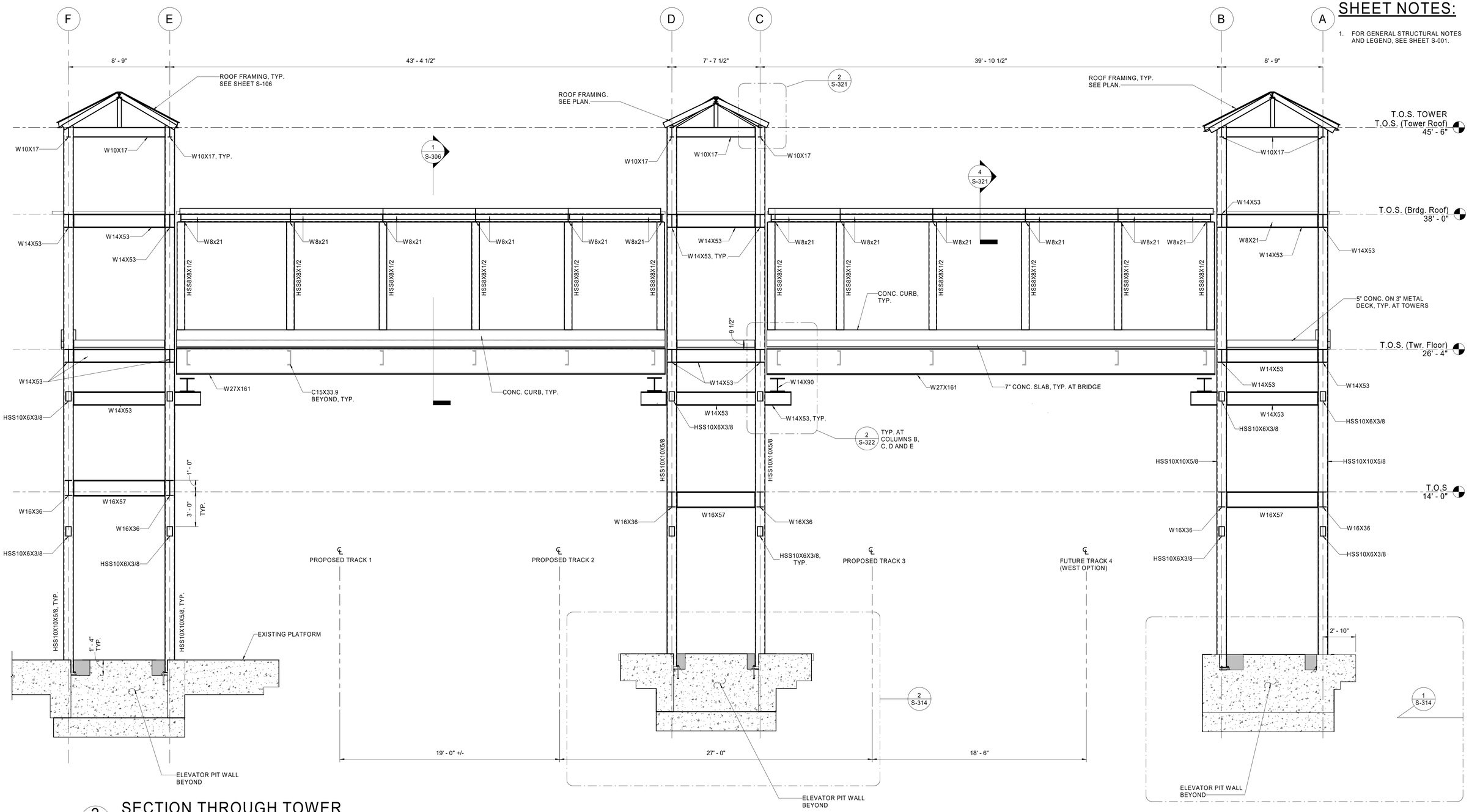
QUANTICO STATION

TOWER-BRIDGE FRAMING SECTION

IFB NO: IFB-020-019
DRAWING NO: S-303
SCALE: 1/4" = 1'-0"
SHEET NO: 115 OF 202

SHEET NOTES:

1. FOR GENERAL STRUCTURAL NOTES AND LEGEND, SEE SHEET S-001.



2 S-304 SECTION THROUGH TOWER

1/4" = 1'-0"

0 2' 4' 8'

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DOCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

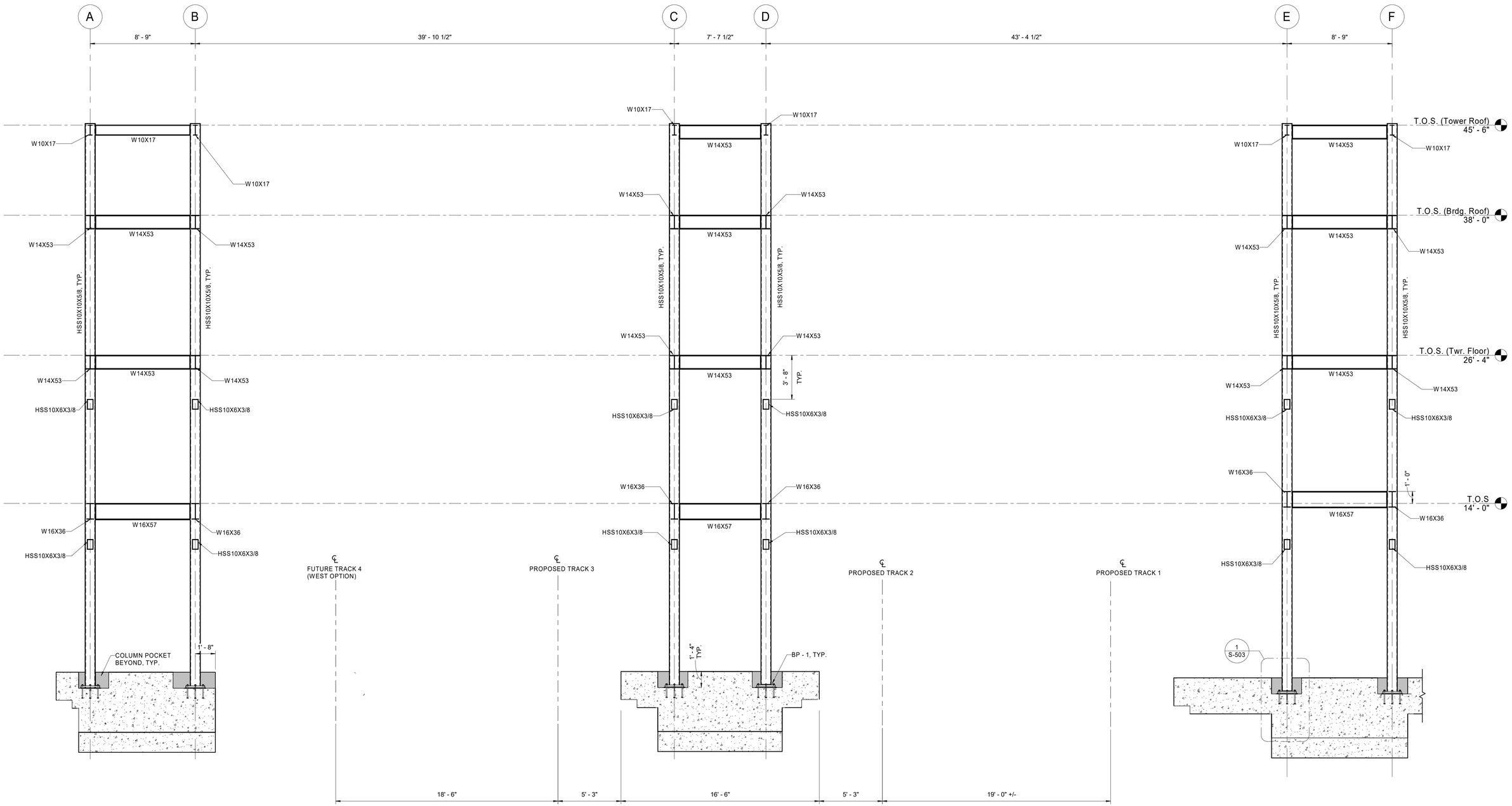
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2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

TOWER-BRIDGE FRAMING SECTION

IFB NO: IFB-020-019
DRAWING NO: S-304
SCALE: 1/4" = 1'-0"
SHEET NO: 116 OF 202



1 S-305

TOWER-BRIDGE FRAMING SECTION AT COLUMN LINE 20

1/4" = 1'-0"

0 2' 4' 8'

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DOCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

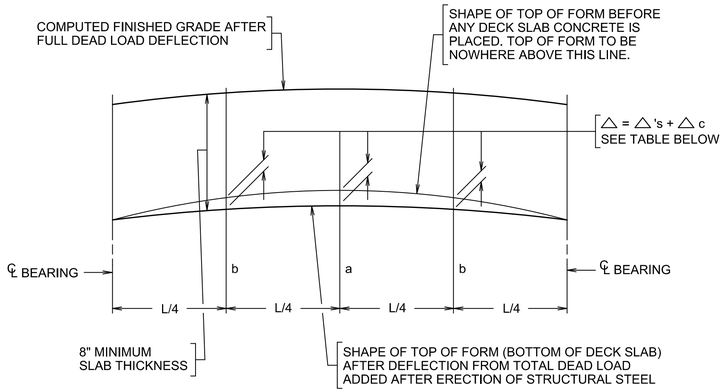
VRE

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STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

TOWER-BRIDGE FRAMING SECTION

IFB NO: IFB-020-019
DRAWING NO: S-305
SCALE: 1/4" = 1'-0"
SHEET NO: 117 OF 202



ADJUSTMENT OF DECK SLAB FORMS TO CORRECT FOR DEAD LOAD DEFLECTIONS SHALL BE MADE BY VARYING THICKNESS OF CONCRETE BOLSTER BETWEEN SLAB AND BEAM WITHOUT ALTERATION OF SLAB THICKNESS. LONGITUDINAL SCREED SHOULD BE SET ABOVE FINAL FINISHED GRADE BY AMOUNTS EQUAL TO C.

	BEAM	DEAD LOAD DEFLECTION AT A		DEAD LOAD DEFLECTION AT B		C	△ s
		△'s	△ c	△'s	△ c		
TOWER 1 TO 2	1	3/16	1/8	1/8	1/16	3/8	1/16
	2	1/4	1/8	3/16	1/16	7/16	1/16
	3	3/16	1/8	1/8	1/16	3/8	1/16
TOWER 2 TO 3	1	1/8	1/16	1/16	1/16	1/4	1/16
	2	1/8	1/16	1/8	1/16	1/4	1/16
	3	1/8	1/16	1/16	1/16	1/4	1/16

△'s = DEFLECTION OF BEAM FROM DEAD LOAD OF CONCRETE DECK SLAB AND BOLSTERS (IN).

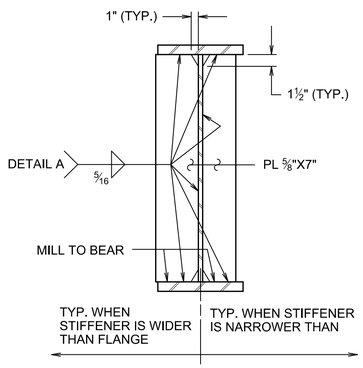
△ c = DEFLECTION OF BEAM FROM DEAD LOAD (E.G. PARAPET, ROOF FRAMING, ETC.) ADDED AFTER DECK SLAB IS CAST (IN).

△ s = DEFLECTION OF BEAM FROM ITS OWN WEIGHT AFTER ERECTION INCLUDING DIAPHRAGMS, CONNECTORS, ETC. AT MIDSPAN (IN).

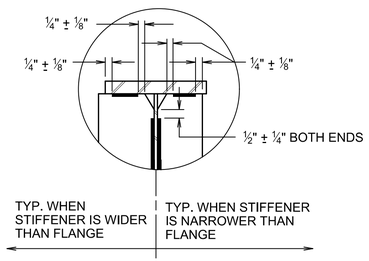
C = THE REQUIRED UPWARD CAMBER FOR BEAM AT MIDSPAN (IN).

DEAD LOAD DEFLECTION DIAGRAM

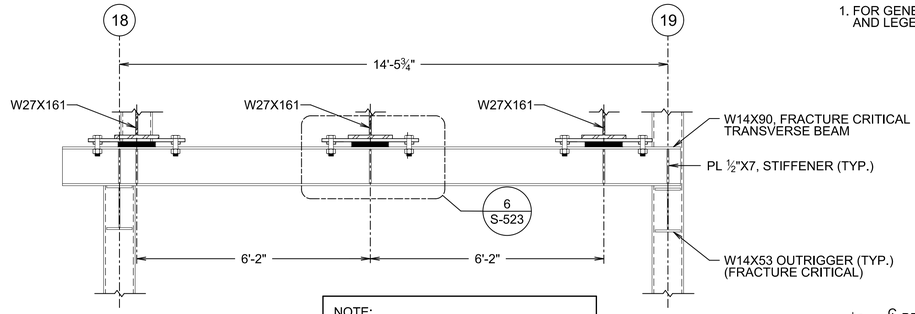
CAMBER NOTE: BEAMS SHALL BE CAMBERED UP C AT MIDSPAN. COMPUTED DEFLECTION OF BEAM FROM ITS OWN WEIGHT AFTER ERECTION, INCLUDING STRUTS (DIAPHRAGMS), CONNECTORS, ETC., AT MIDSPAN.



9 S-306 BEARING STIFFENERS
N.T.S.

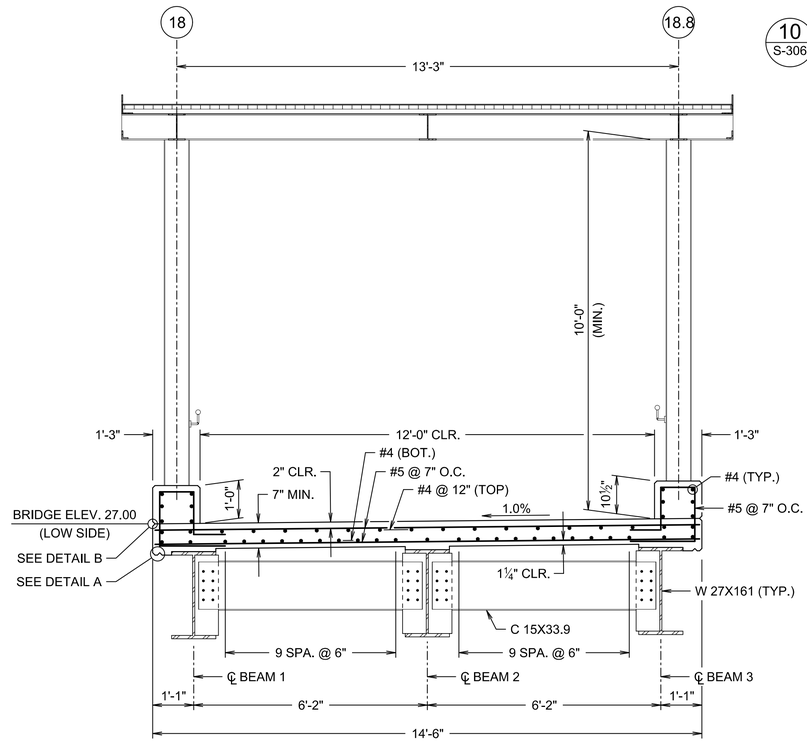


11 S-306 DETAIL A
N.T.S.



NOTE:
1. FOR GIRDER ELEVATIONS SEE 6/S-306
2. FOR BEARING DETAILS SEE S-523

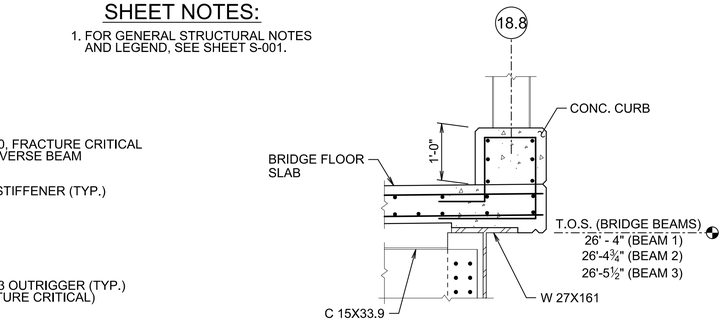
2 BRIDGE SECTION AT TOWER TRANSVERSE BEAM
SCALE: 1/2 " = 1'-0"



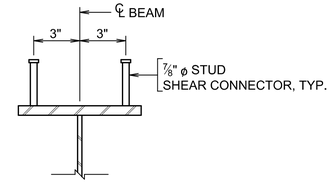
1 S-107 BRIDGE SECTION
SCALE: 1/2 " = 1'-0"

SHEET NOTES:

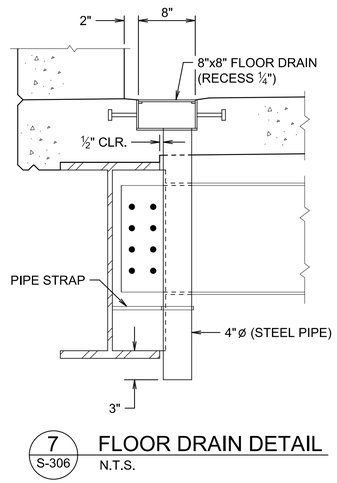
1. FOR GENERAL STRUCTURAL NOTES AND LEGEND, SEE SHEET S-001.



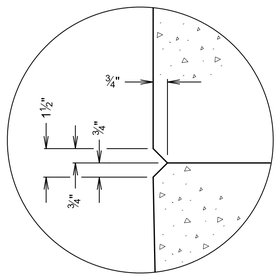
6 S-306 CURB DETAIL
N.T.S.



10 S-306 STUD SHEAR CONNECTOR
N.T.S.

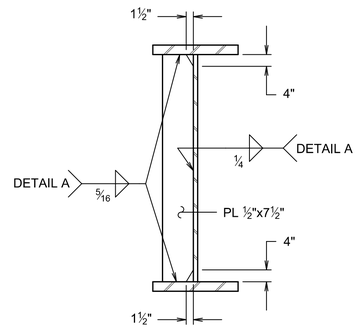


7 S-306 FLOOR DRAIN DETAIL
N.T.S.



DETAIL A
N.T.S.

DETAIL B
N.T.S.



8 S-306 DIAPHRAGM CONNECTOR PLATE
N.T.S.

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

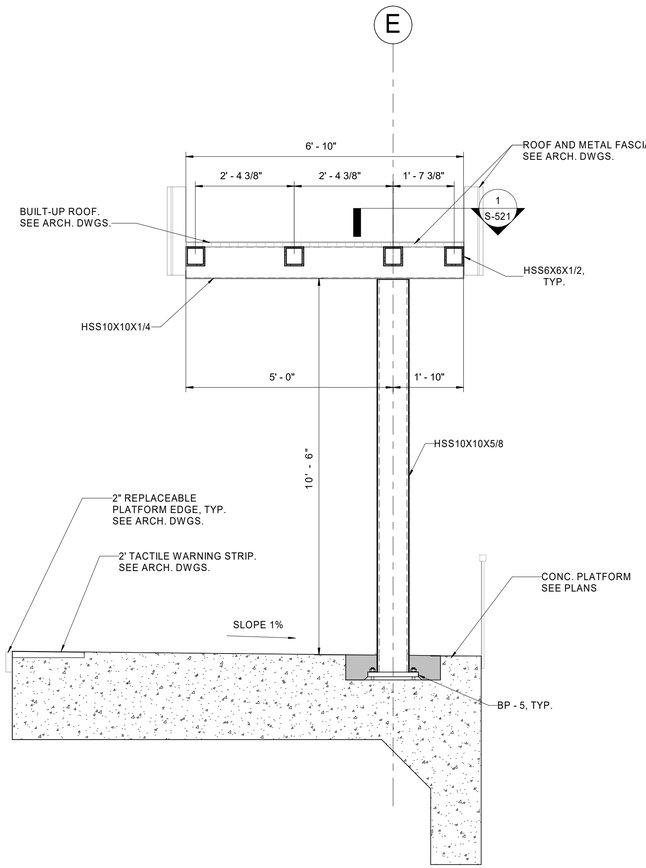
STV 100 Years
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2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

PEDESTRIAN BRIDGE SECTIONS

IFB NO: IFB-020-019
DRAWING NO: S-306
SCALE: AS SHOWN
SHEET NO: 118 OF 202

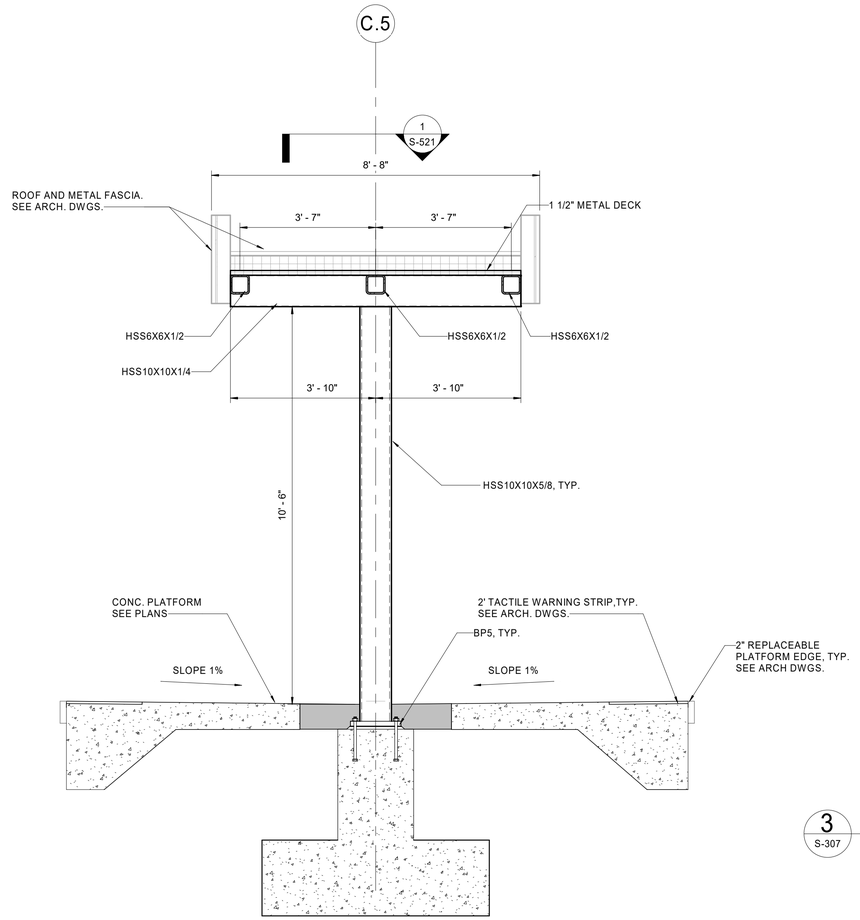
$$FILE$$
$$DATE$$
$$TIME$$



1 S-307 PLATFORM 1 CANOPY FRAMING SECTION

1/2" = 1'-0"

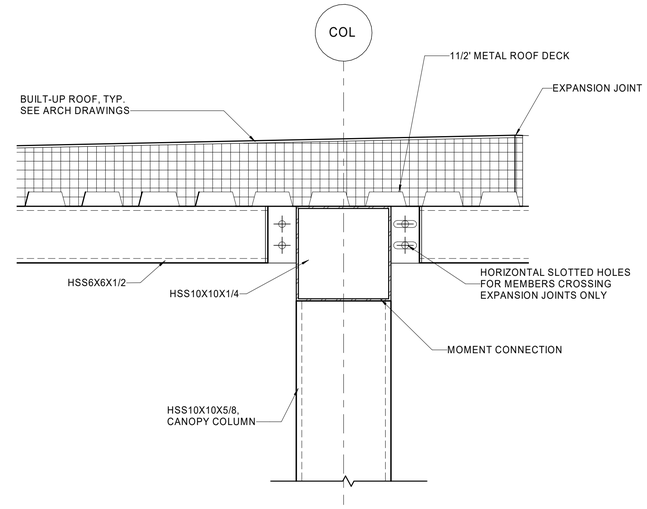
0 1' 2' 4'



2 S-307 PLATFORM 2 CANOPY FRAMING SECTION

1/2" = 1'-0"

0 1' 2' 4'



3 S-307 TYPICAL CANOPY FRAME SECTION

1 1/2" = 1'-0"

0 6" 1' 1'6"

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DUCKER JR
Lic. No. 0402042778
6/10/20
PROFESSIONAL ENGINEER

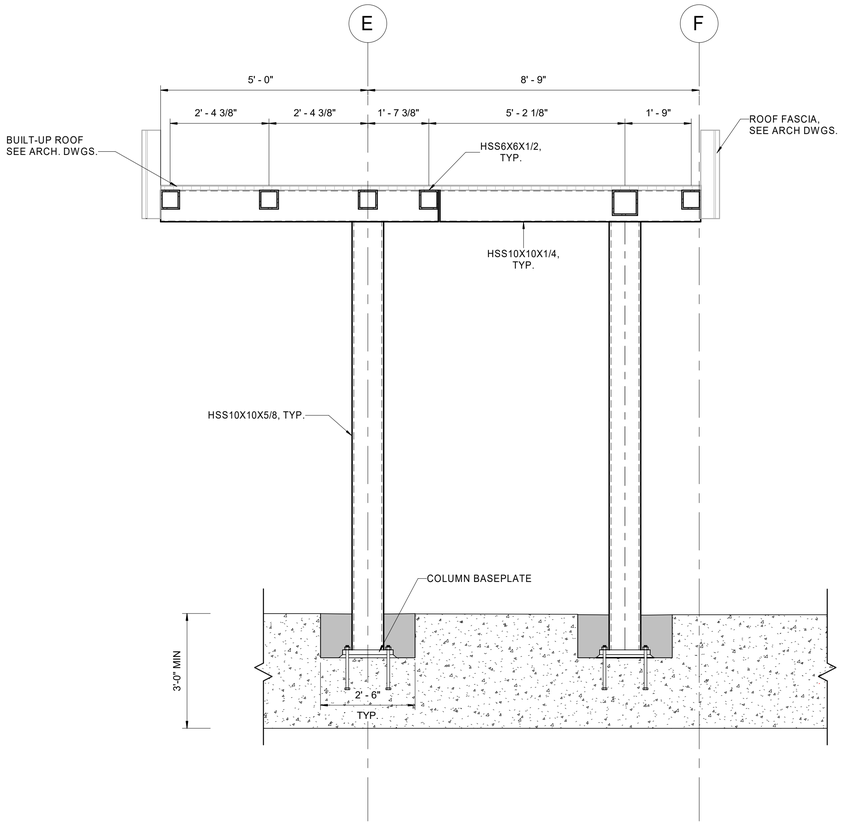
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QUANTICO STATION

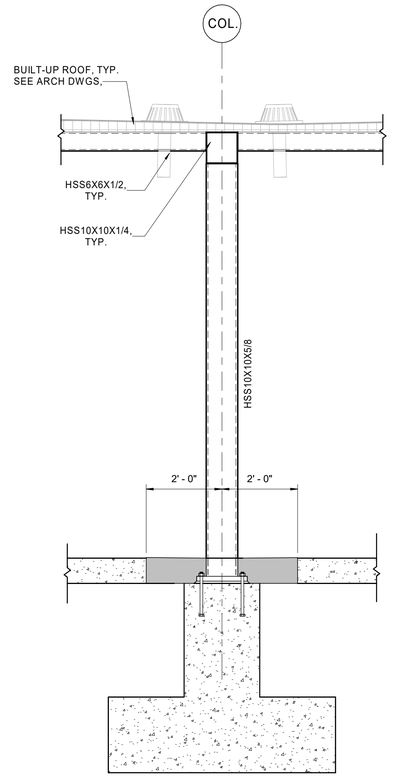
CANOPY SECTIONS (SHEET 1 OF 2)

IFB NO: IFB-020-019
DRAWING NO: S-307
SCALE: AS INDICATED
SHEET NO: 119 OF 202



1 S-308 CANOPY SECTION AT THE EAST TOWER

1/2" = 1'-0"



2 S-308 TYPICAL CANOPY SECTION

1/2" = 1'-0"

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
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DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DOCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

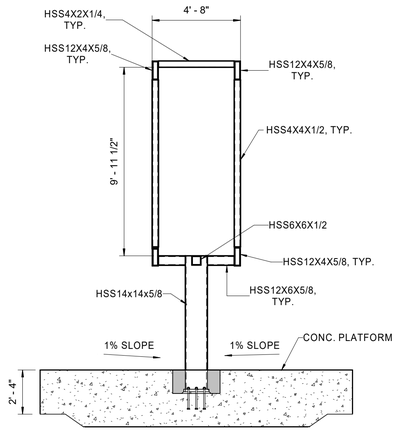
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QUANTICO STATION

CANOPY SECTIONS
(SHEET 2 OF 2)

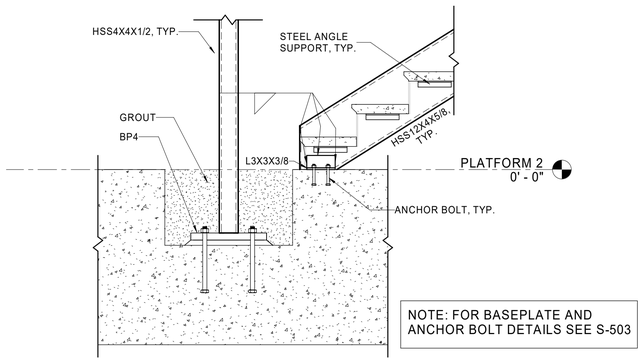
IFB NO: IFB-020-019
DRAWING NO: S-308
SCALE: 1/2" = 1'-0"
SHEET NO: 120 OF 202



1 CENTER STAIR SECTION

S-309 — 1/4" = 1'-0"

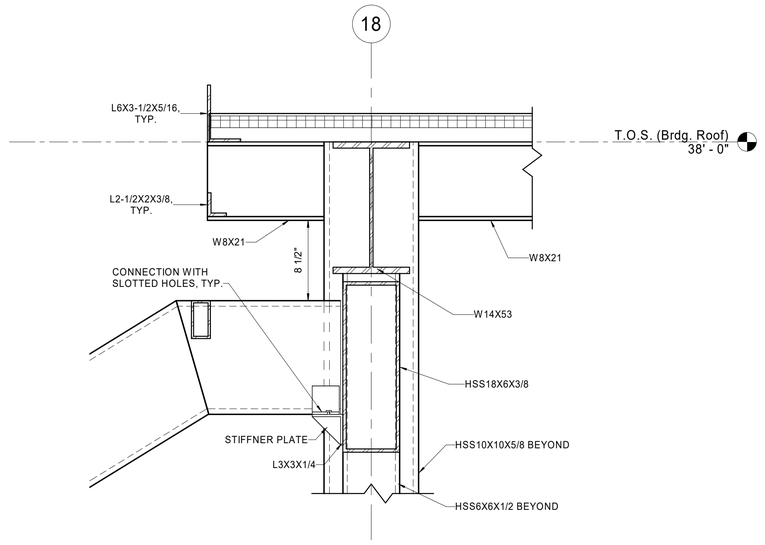
0 2' 4' 8'



2 TYPICAL STAIR CONNECTION AT THE BASE

S-309 — 3/4" = 1'-0"

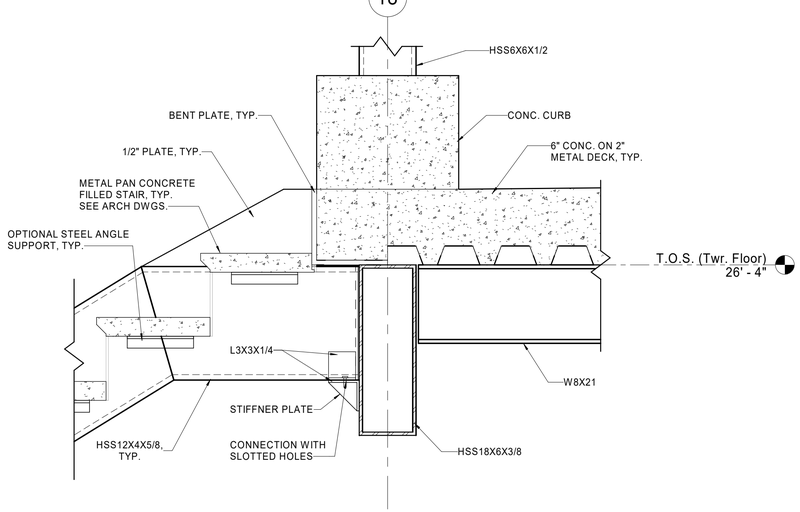
0 1' 2' 3'



3 STAIR CONNECTION AT ROOF

S-309 — 1 1/2" = 1'-0"

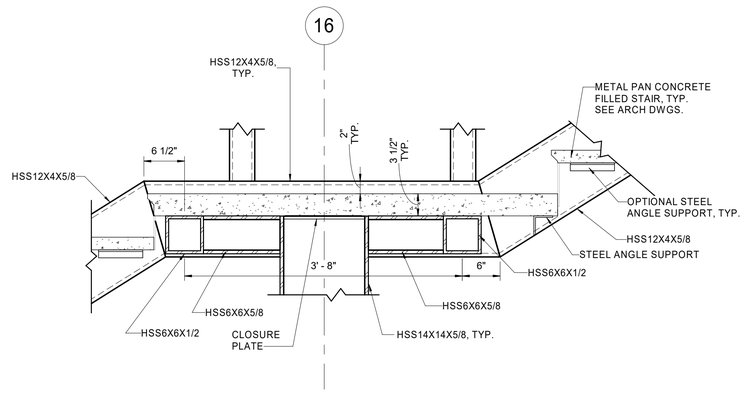
0 6" 1' 1'8"



4 STAIR CONNECTION AT TOWER FLOOR

S-309 — 1 1/2" = 1'-0"

0 6" 1' 1'8"



5 TYPICAL STAIR LANDING FRAMING SECTION

S-309 — 1" = 1'-0"

0 6" 1' 2'

INVITATION FOR BID
NOT FOR CONSTRUCTION

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	0	06/10/20			INVITATION FOR BID
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DESIGNED BY: RB
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CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA — ALBERT WILLIAM DOCKER JR — Lic. No. 0402042778 — PROFESSIONAL ENGINEER — 6/10/20

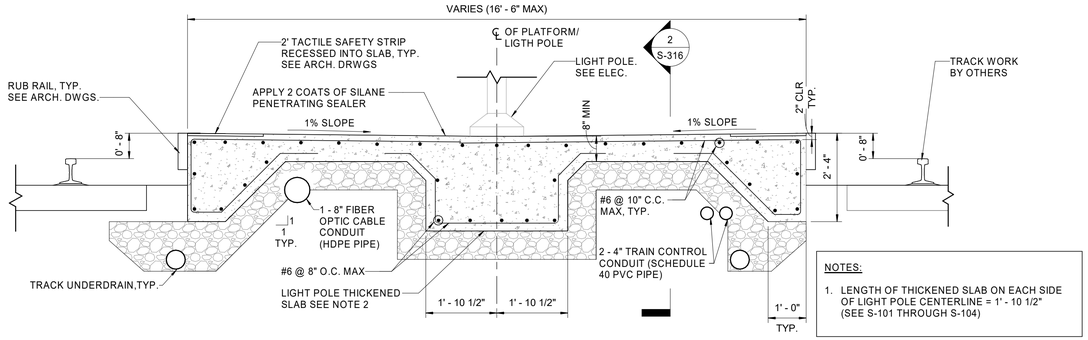
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QUANTICO STATION

STAIR SECTIONS

IFB NO: IFB-020-019
DRAWING NO: S-309
SCALE: AS INDICATED
SHEET NO: 121 OF 202

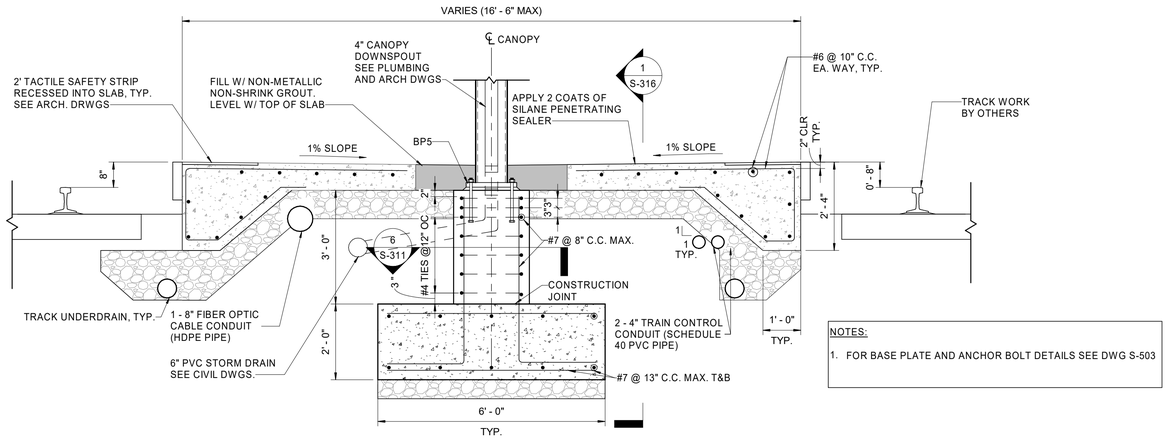


NOTES:

1. LENGTH OF THICKENED SLAB ON EACH SIDE OF LIGHT POLE CENTERLINE = 1' - 10 1/2" (SEE S-101 THROUGH S-104)

1 S-311 PLATFORM 2 SECTION AT LIGHT POLE

1/2" = 1'-0"

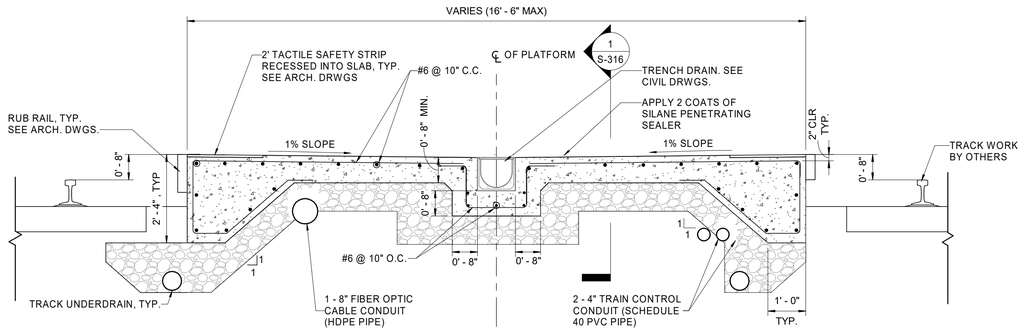


NOTES:

1. FOR BASE PLATE AND ANCHOR BOLT DETAILS SEE DWG S-503

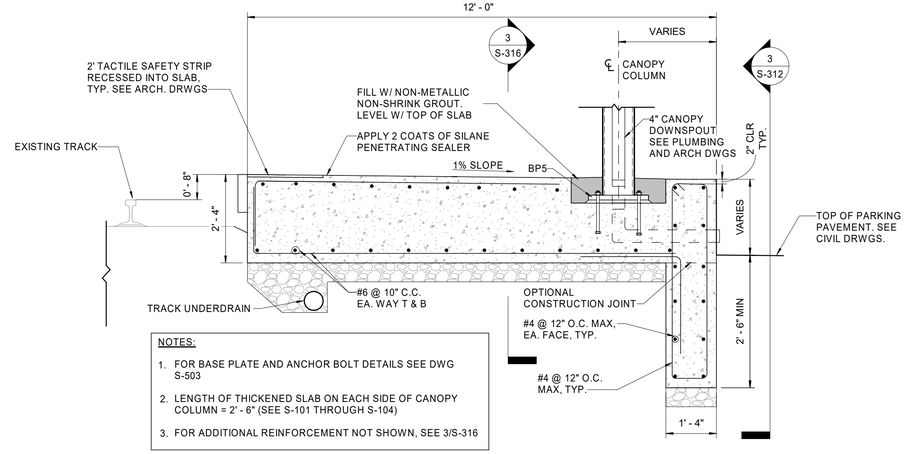
2 S-311 PLATFORM 2 SECTION AT CANOPY/ STAIR COLUMN

1/2" = 1'-0"



3 S-311 PLATFORM 2 SECTION AT CANOPY / NON-CANOPY

1/2" = 1'-0"

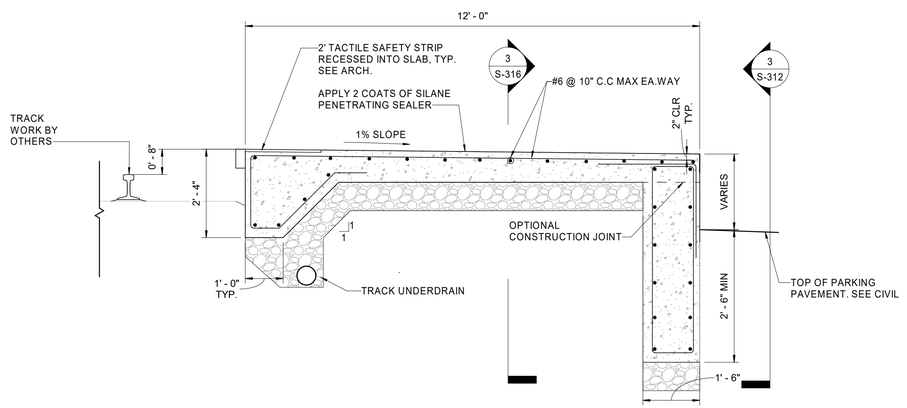


NOTES:

1. FOR BASE PLATE AND ANCHOR BOLT DETAILS SEE DWG S-503
2. LENGTH OF THICKENED SLAB ON EACH SIDE OF CANOPY COLUMN = 2' - 6" (SEE S-101 THROUGH S-104)
3. FOR ADDITIONAL REINFORCEMENT NOT SHOWN, SEE 3/S-316

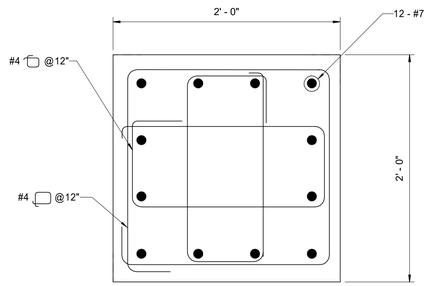
4 S-311 PLATFORM 1 SECTION AT CANOPY COLUMN

1/2" = 1'-0"



5 S-311 PLATFORM 1 SECTION BETWEEN CANOPY / NON-CANOPY

1/2" = 1'-0"



6 S-311 REBAR PLAN

1 1/2" = 1'-0"

SHEET NOTES:

1. EXTEND FIBER OPTIC AND TRAIN CONTROL CONDUIT 3' BEYOND END OF PLATFORM AND CAP. SLOPE CONDUIT DOWN FOR 40' END SEGMENT TO PROVIDE A MINIMUM 24" COVER AT END OF PLATFORM. PROVIDE PULL WIRES IN CONDUIT.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AWD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA ALBERT WILLIAM DOCKER JR. Lic. No. 0402042778 PROFESSIONAL ENGINEER 6/10/20

VRE

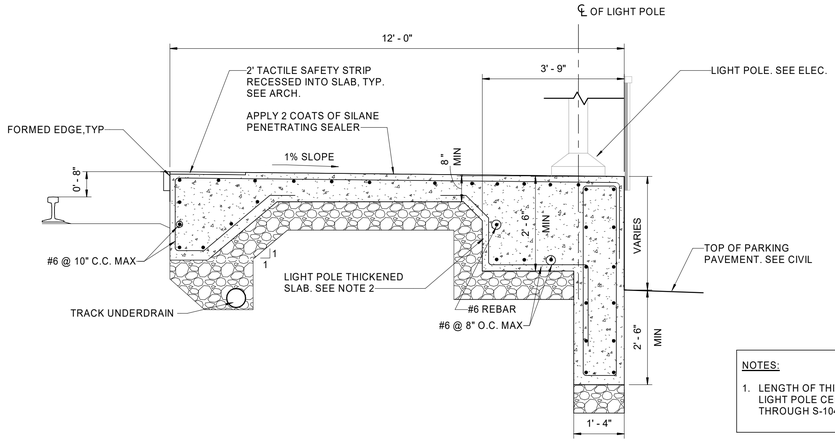
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STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

CONCRETE SECTIONS (SHEET 1 OF 6)

INVITATION FOR BID
NOT FOR CONSTRUCTION

IFB NO: IFB-020-019
DRAWING NO: S-311
SCALE: AS INDICATED
SHEET NO: 122 OF 202

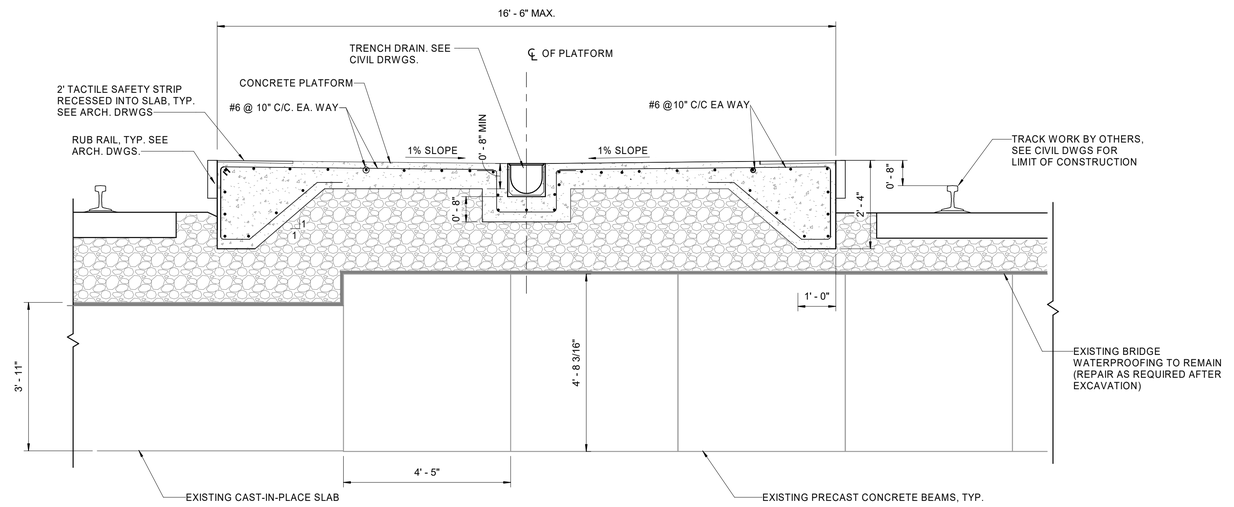


NOTES:

1. LENGTH OF THICKENED SLAB ON EACH SIDE OF LIGHT POLE CENTERLINE = 1' - 10 1/2" (SEE S-101 THROUGH S-104)

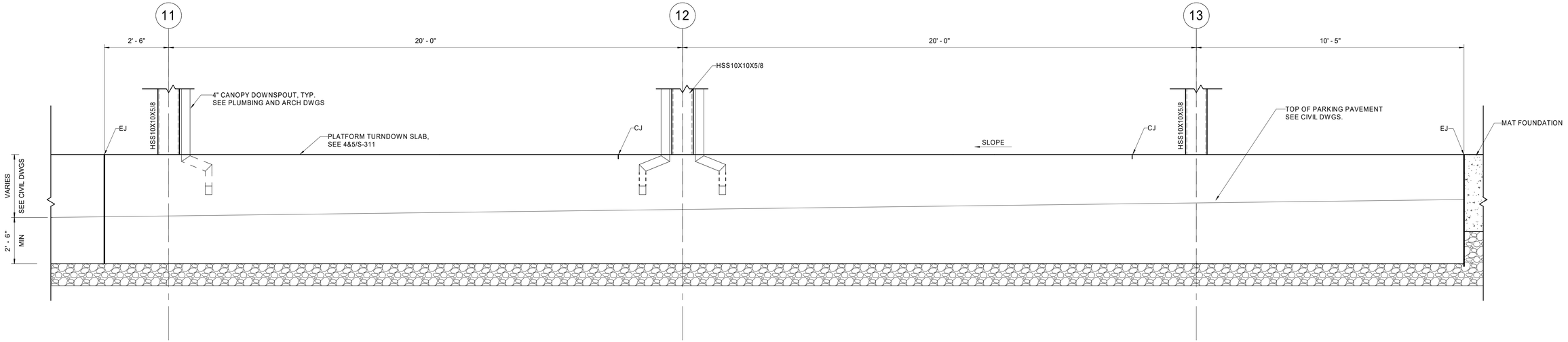
1 PLATFORM 1 SECTION AT LIGHT POLE

S-312 — 1/2" = 1'-0"



2 PLATFORM 2 SECTION AT MARTIN ST. BRIDGE

S-312 — 1/2" = 1'-0"



3 PLATFORM 1 FOUNDATION TRANSITION DETAIL 1

S-103 — 1/2" = 1'-0"

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AWD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA — ALBERT WILLIAM DOCKER JR — Lic. No. 0402042778 — PROFESSIONAL ENGINEER — 6/10/20

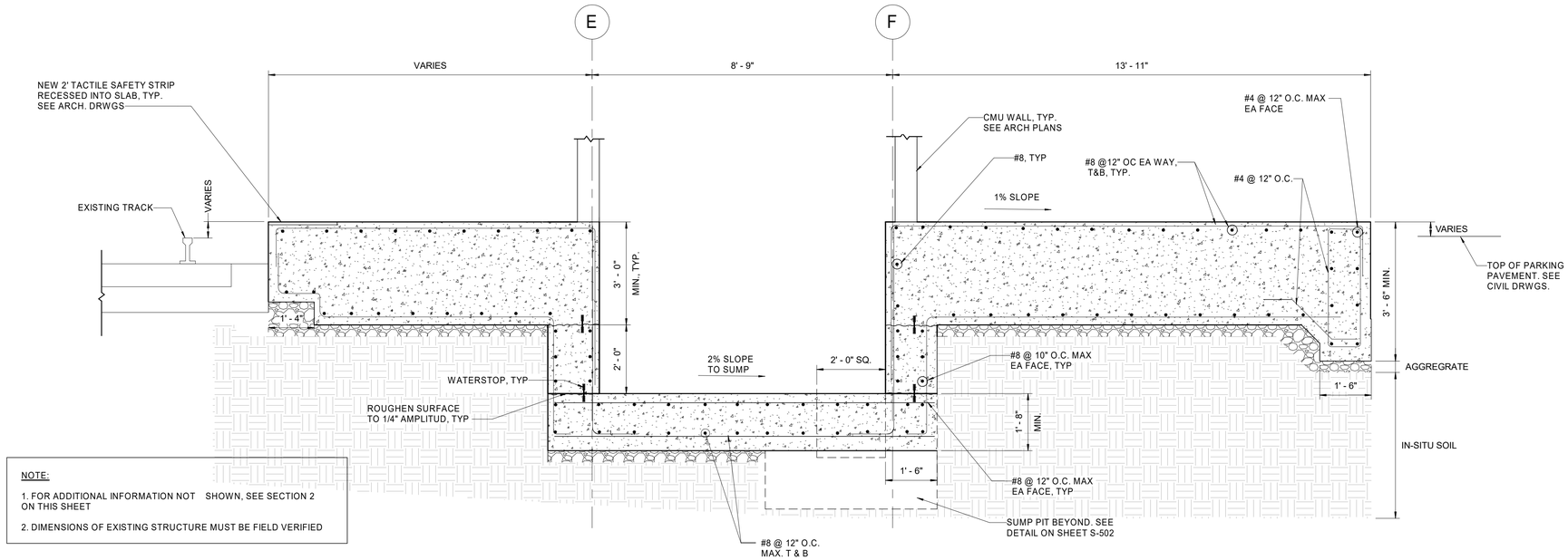
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2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

CONCRETE SECTIONS (SHEET 2 OF 6)

IFB NO: IFB-020-019
DRAWING NO: S-312
SCALE: 1/2" = 1'-0"
SHEET NO: 123 OF 202



NOTE:

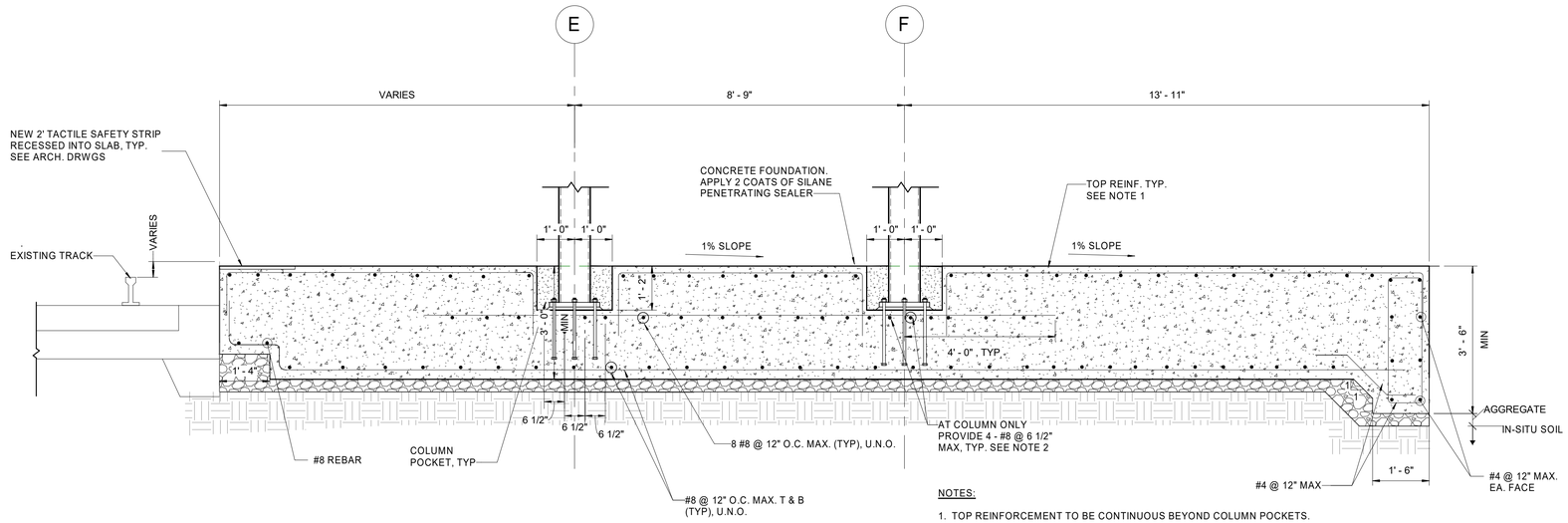
1. FOR ADDITIONAL INFORMATION NOT SHOWN, SEE SECTION 2 ON THIS SHEET

2. DIMENSIONS OF EXISTING STRUCTURE MUST BE FIELD VERIFIED

1 S-313 PLATFORM 1 SECTON AT TOWER-BRIDGE-ELEVATOR

1/2" = 1'-0"

0 1' 2' 4'



NOTES:

1. TOP REINFORCEMENT TO BE CONTINUOUS BEYOND COLUMN POCKETS.

2. REINFORCEMENT TO BE INSTALLED BELOW COLUMN POCKETS ONLY.

3. FOR BASE PLATE AND ANCHOR BOLT DETAILS SEE DWG S-503

2 S-313 PLATFORM 1 SECTION AT TOWER-BRIDGE

1/2" = 1'-0"

0 1' 2' 4'

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DECKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

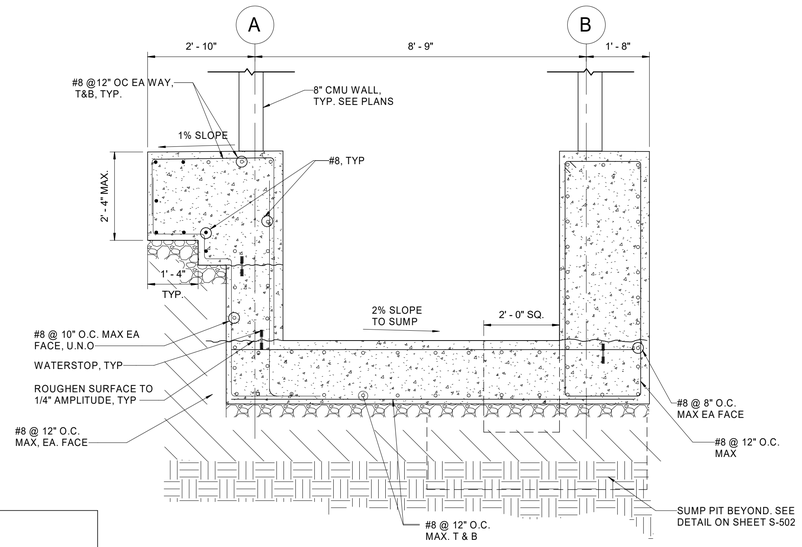
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Fairfax, VA 22031

QUANTICO STATION

CONCRETE SECTIONS (SHEET 3 OF 6)

IFB NO: IFB-020-019
DRAWING NO: S-313
SCALE: 1/2" = 1'-0"
SHEET NO: 124 OF 202



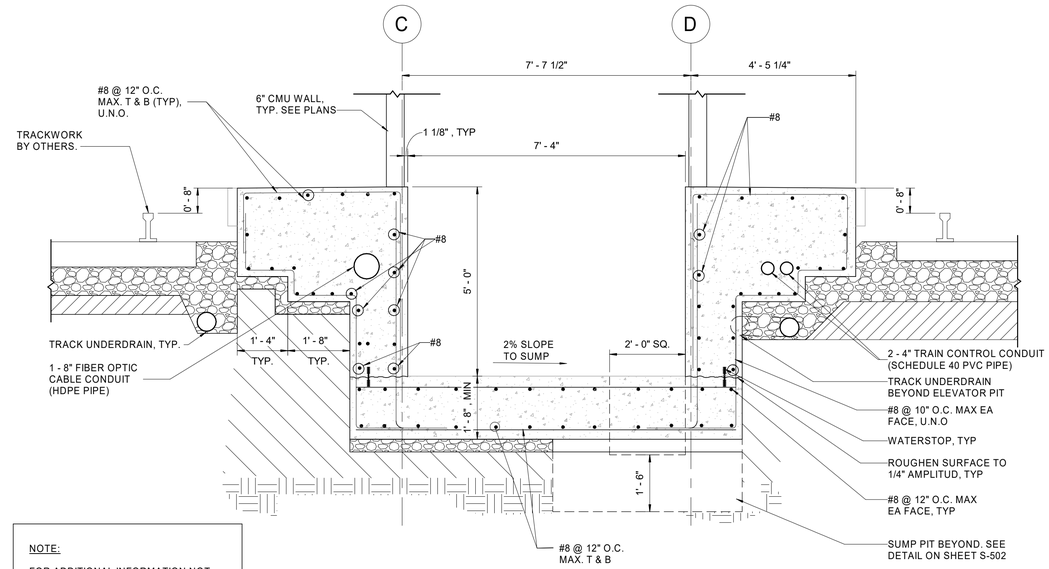
NOTE:

FOR ADDITIONAL INFORMATION NOT SHOWN, SEE SECTION 3 ON THIS SHEET

1 S-314 FOUNDATION AT TOWER 3 -BRIDGE- ELEVATOR

1/2" = 1'-0"

0 1' 2' 4'



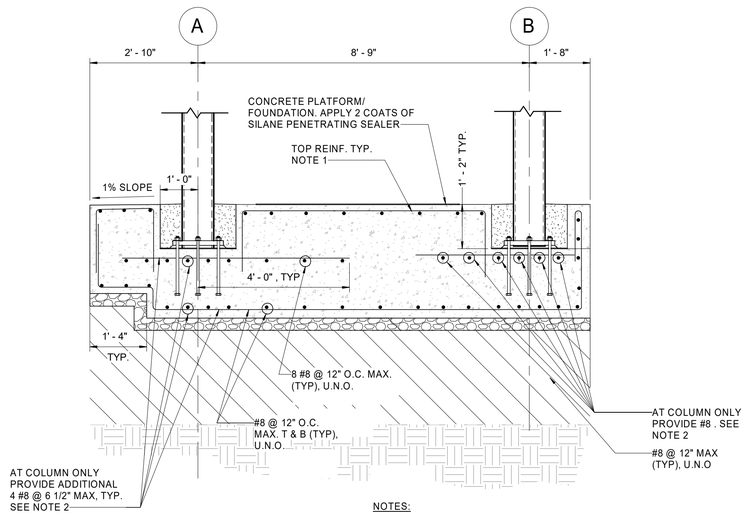
NOTE:

FOR ADDITIONAL INFORMATION NOT SHOWN, SEE SECTION 1 ON THIS SHEET

2 S-314 PLATFORM 2 AT TOWER-BRIDGE-ELEVATOR

1/2" = 1'-0"

0 1' 2' 4'



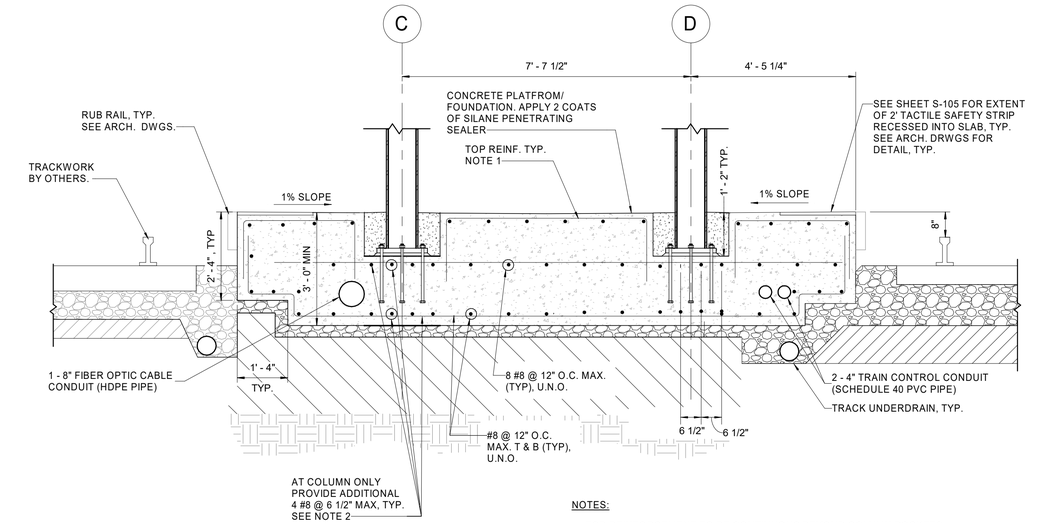
NOTES:

1. TOP REINFORCEMENT TO BE CONTINUOUS BEYOND COLUMN POCKETS.
2. REINFORCEMENT TO BE INSTALLED BELOW COLUMN POCKETS ONLY.
3. FOR BASE PLATE AND ANCHOR BOLT DETAILS SEE DWG S-503.
4. FOR SIDEWALK DETAILS CHECK CIVIL DRAWINGS.

3 S-314 FOUNDATION AT TOWER 3-BRIDGE

1/2" = 1'-0"

0 1' 2' 4'



NOTES:

1. TOP REINFORCEMENT TO BE CONTINUOUS BEYOND COLUMN POCKETS.
2. REINFORCEMENT TO BE INSTALLED BELOW COLUMN POCKETS ONLY.
3. FOR BASE PLATE AND ANCHOR BOLT DETAILS SEE DWG S-501.

4 S-314 PLATFORM 2 AT TOWER-BRIDGE

1/2" = 1'-0"

0 1' 2' 4'

INVITATION FOR BID
NOT FOR CONSTRUCTION

SHEET NOTES:

1. EXTEND FIBER OPTIC AND TRAIN CONTROL CONDUIT 3' BEYOND END OF PLATFORM AND CAP. SLOPE CONDUIT DOWN FOR 40' END SEGMENT TO PROVIDE A MINIMUM 24" COVER AT END OF PLATFORM. PROVIDE PULL WIRES IN CONDUIT.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM BOCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

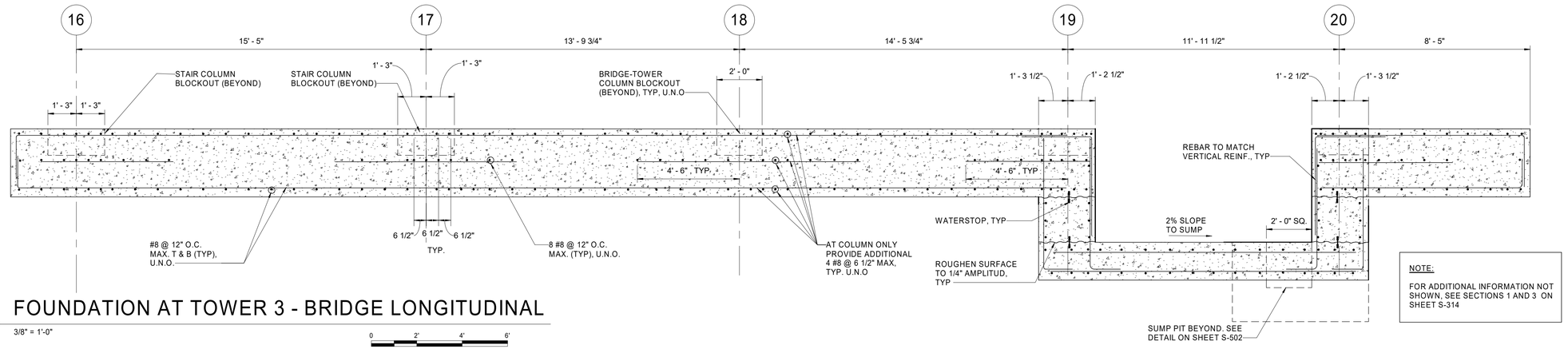
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2701 Prosperity Ave, Suite 305
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QUANTICO STATION

CONCRETE SECTIONS (SHEET 4 OF 6)

IFB NO: IFB-020-019
DRAWING NO: S-314
SCALE: 1/2" = 1'-0"
SHEET NO: 125 OF 202

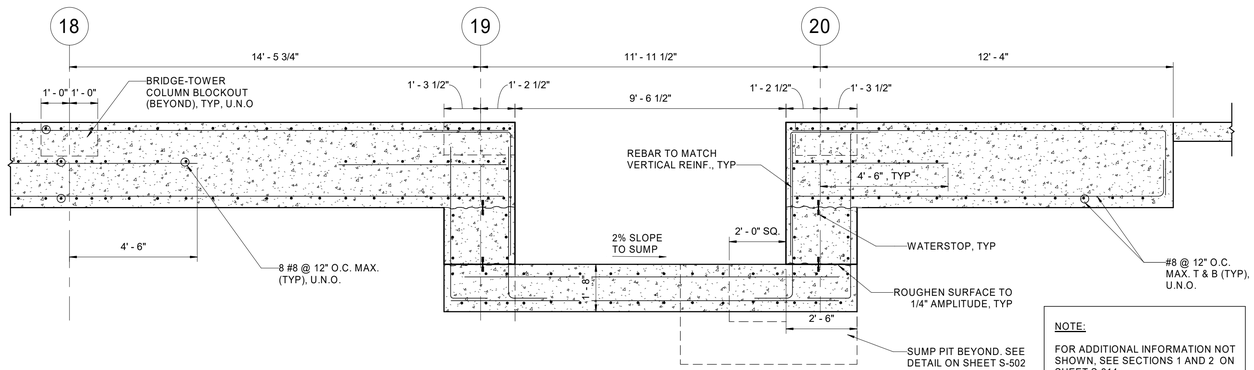


1 S-315

FOUNDATION AT TOWER 3 - BRIDGE LONGITUDINAL

3/8" = 1'-0"

0 2' 4' 6'

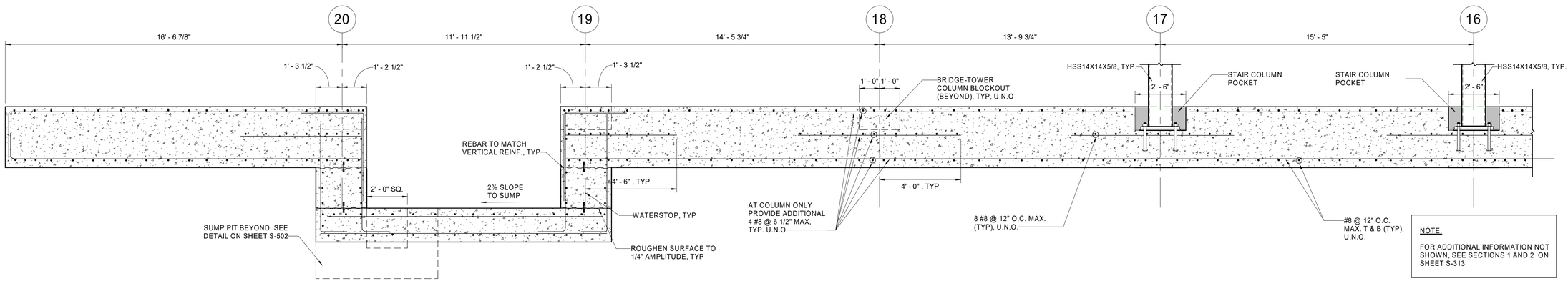


2 S-315

PLATFORM 2 AT LONGITUDINAL TOWER-BRIDGE

3/8" = 1'-0"

0 2' 4' 6'



3 S-315

PLATFORM 1 SECTION AT TOWER-BRIDGE

3/8" = 1'-0"

0 2' 4' 6'

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DOCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

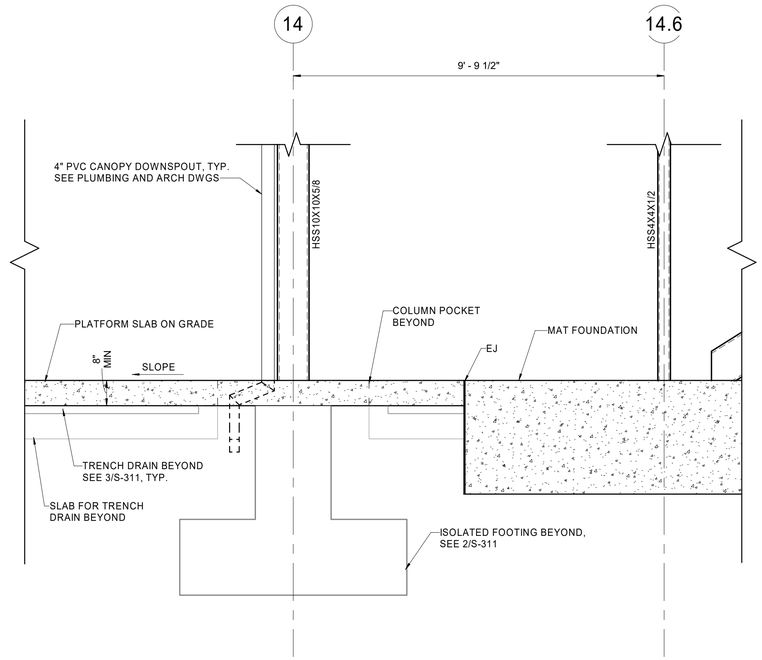
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QUANTICO STATION

CONCRETE SECTIONS (SHEET 5 OF 6)

IFB NO: IFB-020-019
DRAWING NO: S-315
SCALE: 3/8" = 1'-0"
SHEET NO: 126 OF 202

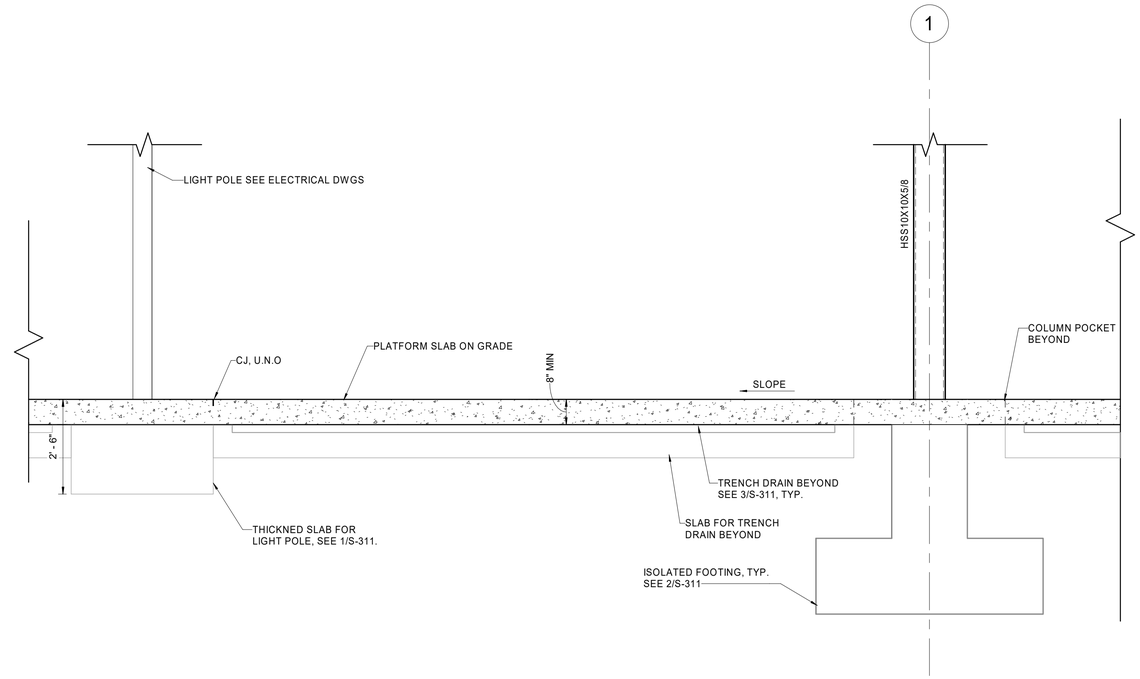


1 PLATFORM 2 FOUNDATION TRANSITION DETAIL 1

S-316

1/2" = 1'-0"

0 1' 2' 4'

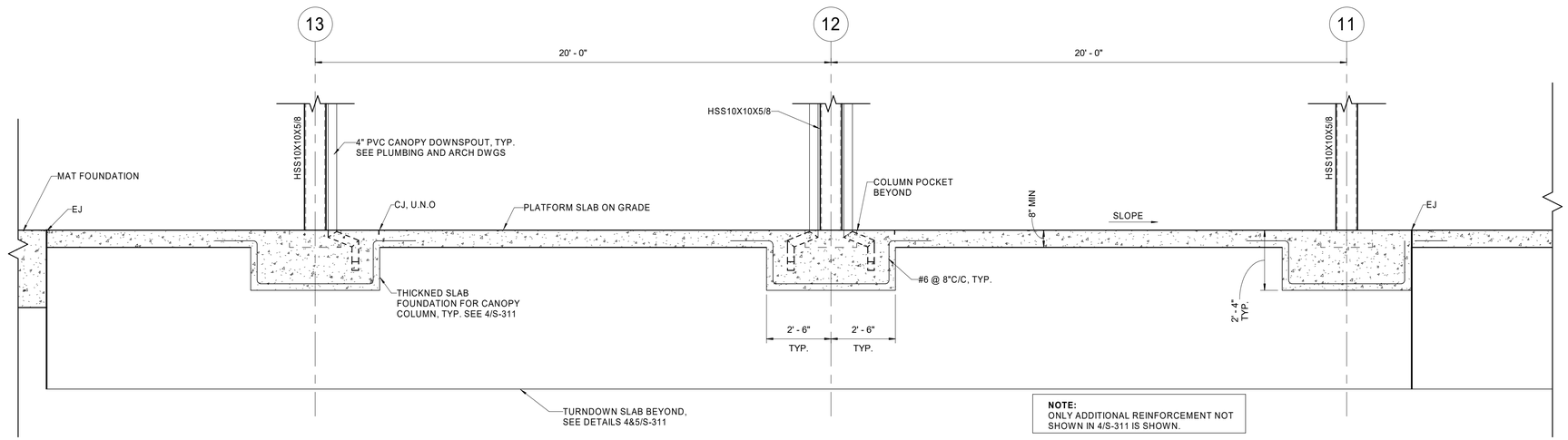


2 PLATFORM 2 FOUNDATION TRANSITION DETAIL 2

S-316

1/2" = 1'-0"

0 1' 2' 4'



3 PLATFORM 1 FOUNDATION TRANSITION DETAIL 2

S-316

3/8" = 1'-0"

0 1' 2' 4'

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: Designer
DRAWN BY Author
CHECKED BY: Checker
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DOCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

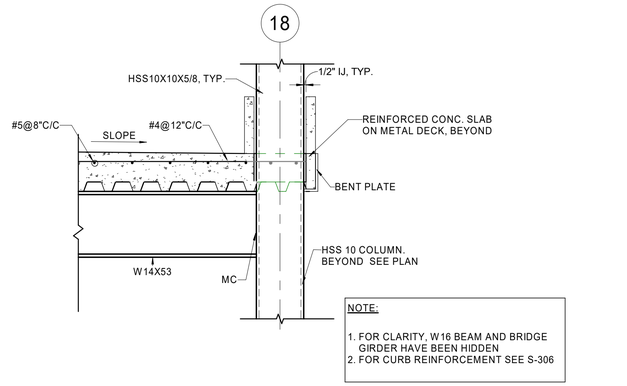
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QUANTICO STATION

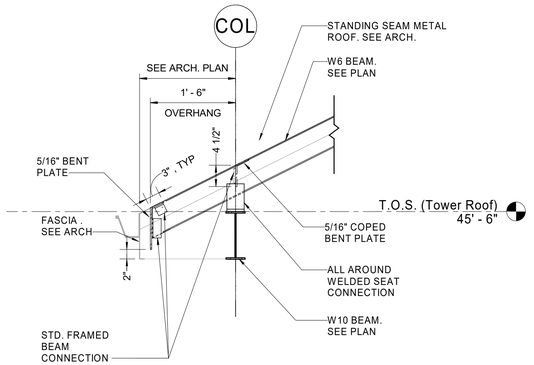
CONCRETE SECTIONS (SHEET 6 OF 6)

IFB NO: IFB-020-019
DRAWING NO: S-316
SCALE: AS INDICATED
SHEET NO: 127 OF 202



1 TOWER FLOOR SECTION AT BRIDGE LEVEL

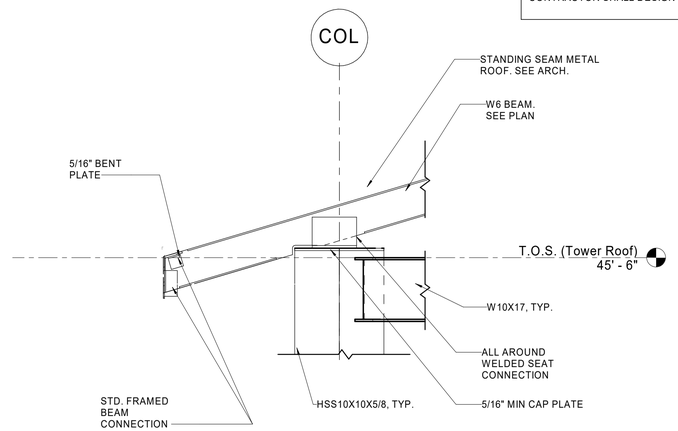
S-321 — 3/4" = 1'-0"



2 SECTION AT TOWER ROOF EAVE

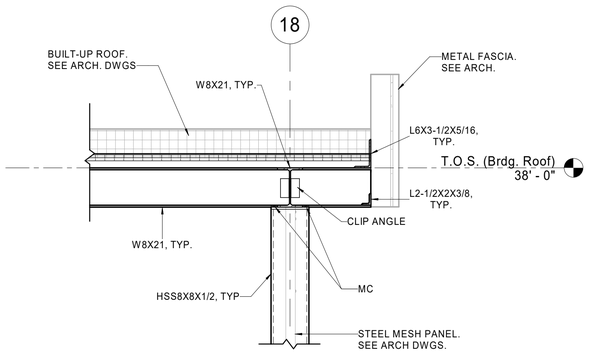
S-321 — 3/4" = 1'-0"

GENERAL NOTES:
CONNECTION DETAILS SHOWN ARE CONCEPTUAL ONLY.
CONTRACTOR SHALL DESIGN THE CONNECTIONS.



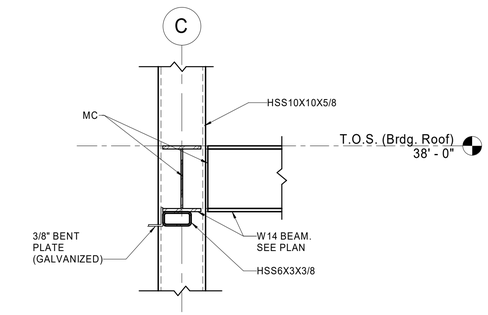
3 SECTION AT TOWER EAVE

S-321 — 1" = 1'-0"



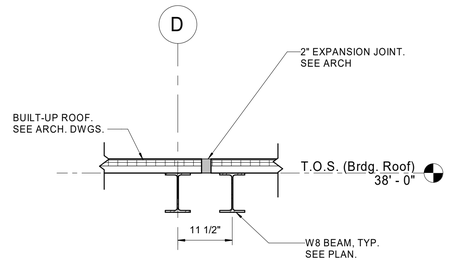
4 BRIDGE ROOF SECTION

S-321 — 3/4" = 1'-0"



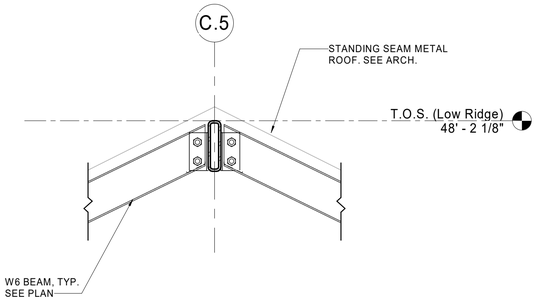
5 TOWER-BRIDGE SECTION

S-321 — 3/4" = 1'-0"



6 BRIDGE ROOF SECTION

S-321 — 3/4" = 1'-0"



7 SECTION AT TOWER ROOF RIDGE

S-321 — 1" = 1'-0"

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DOCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
06/10/20

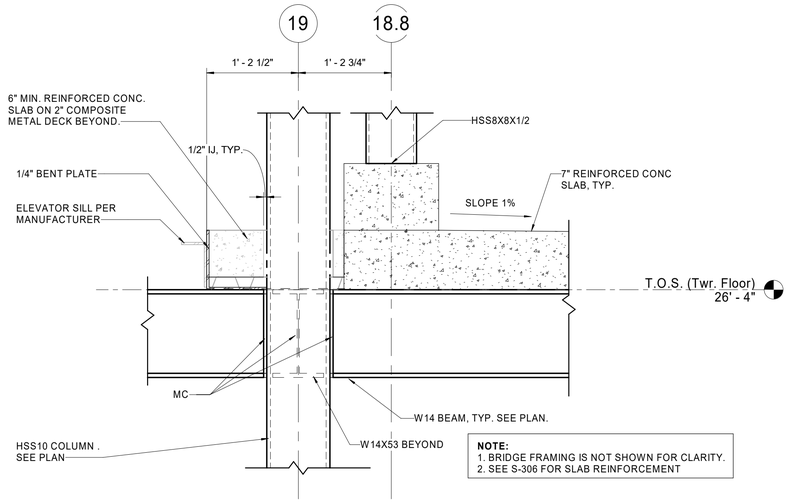
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QUANTICO STATION

STEEL SECTIONS
(SHEET 1 OF 2)

IFB NO: IFB-020-019
DRAWING NO: S-321
SCALE: AS INDICATED
SHEET NO: 128 OF 202



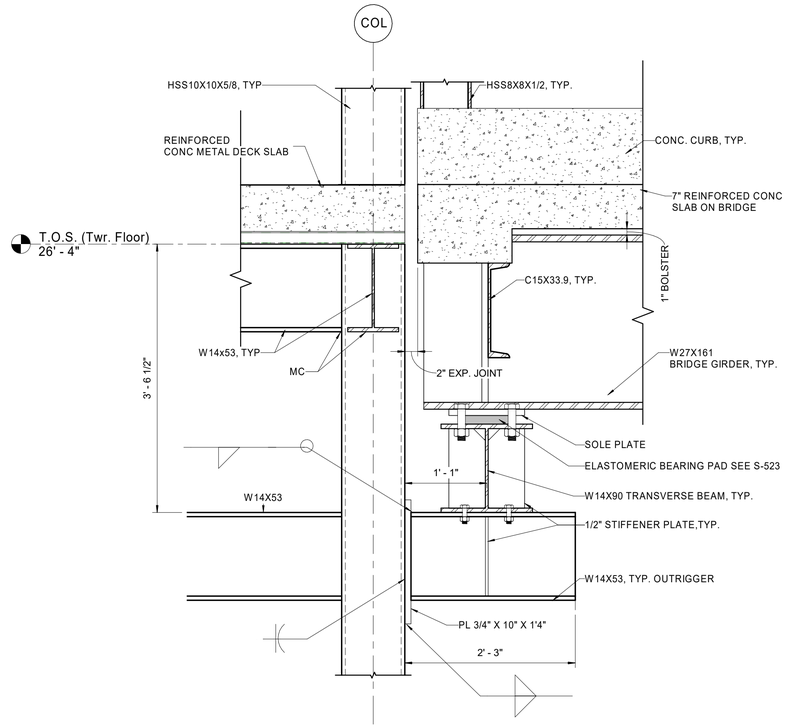
NOTE:
1. BRIDGE FRAMING IS NOT SHOWN FOR CLARITY.
2. SEE S-306 FOR SLAB REINFORCEMENT

1 TOWER-BRIDGE SECTION

S-322 — 1" = 1'-0"

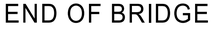


NOTES:
1. CONNECTION DETAILS SHOWN ARE CONCEPTUAL ONLY. CONTRACTOR SHALL DESIGN THE CONNECTIONS.
2. FOR BRIDGE SLAB AND CURB REINFORCEMENT DETAILS SEE S-306.



2 TOWER - BRIDGE ELEVATION AT END OF BRIDGE

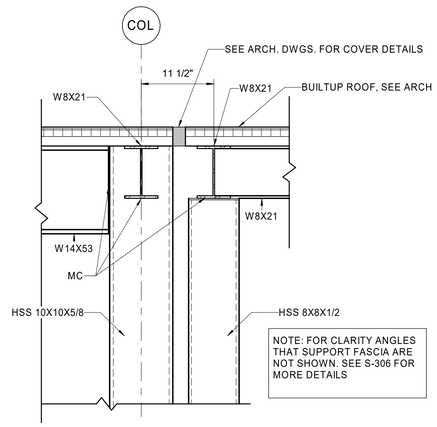
S-322 — 1" = 1'-0"



3 TOWER-BRIDGE SECTION

S-322 — 1" = 1'-0"





NOTE: FOR CLARITY ANGLES THAT SUPPORT FASCIA ARE NOT SHOWN. SEE S-306 FOR MORE DETAILS

4 TOWER - BRIDGE ROOF ELEVATION AT END OF BRIDGE

S-322 — 1" = 1'-0"

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA — ALBERT WILLIAM DOCKER JR — Lic. No. 0402042778 — PROFESSIONAL ENGINEER — 6/10/20

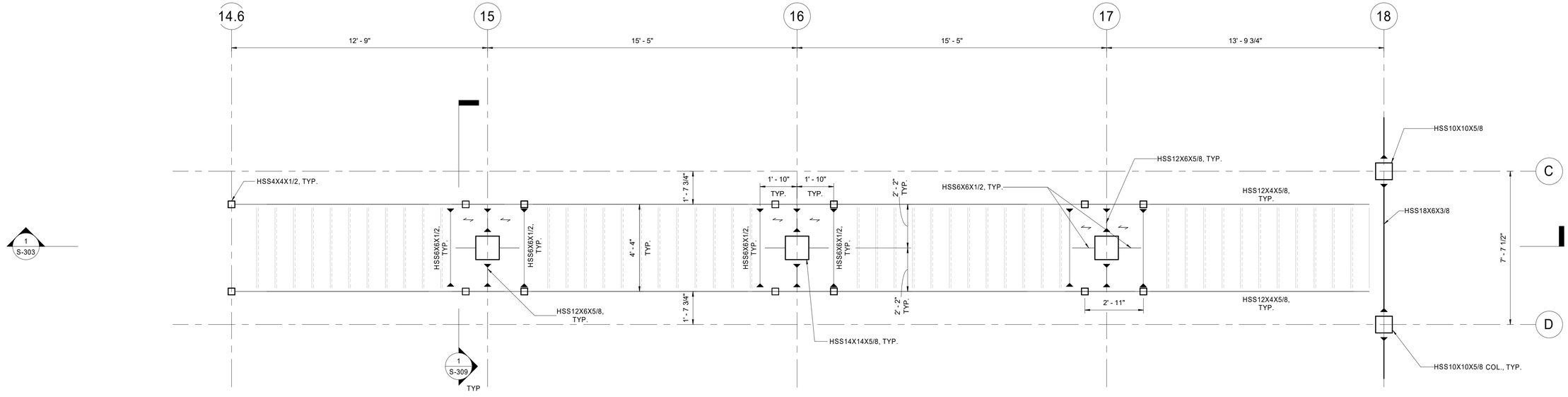
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QUANTICO STATION

STEEL SECTIONS (SHEET 2 OF 2)

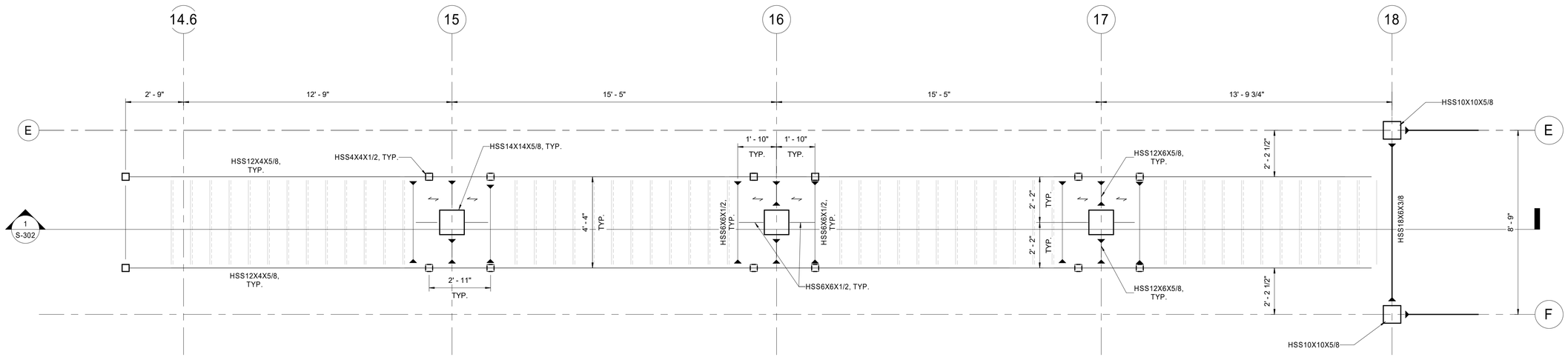
IFB NO: IFB-020-019
DRAWING NO: S-322
SCALE: 1" = 1'-0"
SHEET NO: 129 OF 202



TOWER 2 - STAIR FLOOR LEVEL FRAMING PLAN

1 S-401 — 3/8" = 1'-0"

0 2' 4' 6'



TOWER 1 - STAIR FLOOR LEVEL FRAMING PLAN

2 S-401 — 3/8" = 1'-0"

0 2' 4' 6'

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DOCKER JR
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PROFESSIONAL ENGINEER
6/10/20

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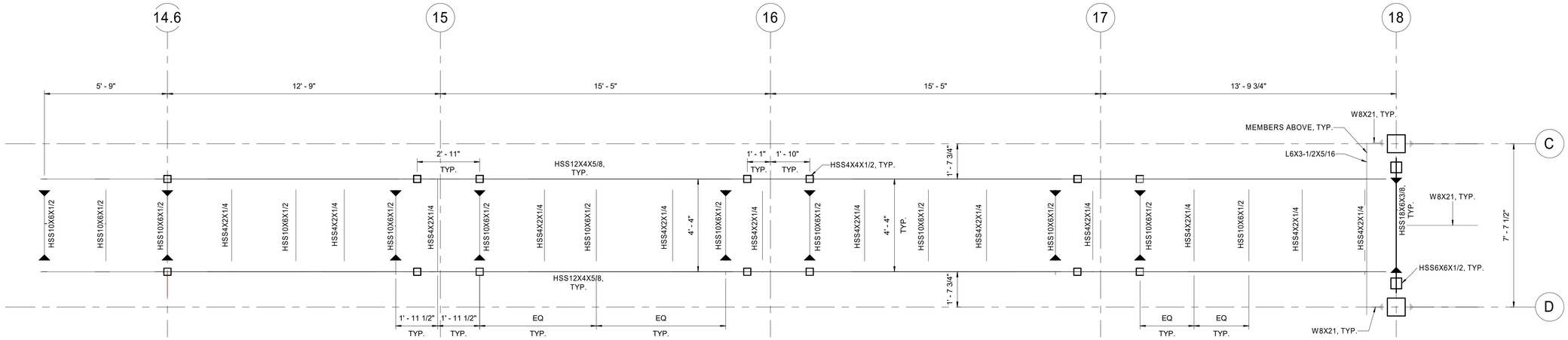
QUANTICO STATION

STAIR FLOOR FRAMING ENLARGED PLANS

IFB NO: IFB-020-019
DRAWING NO: S-401
SCALE: 3/8" = 1'-0"
SHEET NO: 130 OF 202

SHEET NOTES:

1. FOR GENERAL STRUCTURAL NOTES AND LEGEND, SEE SHEET S-001.

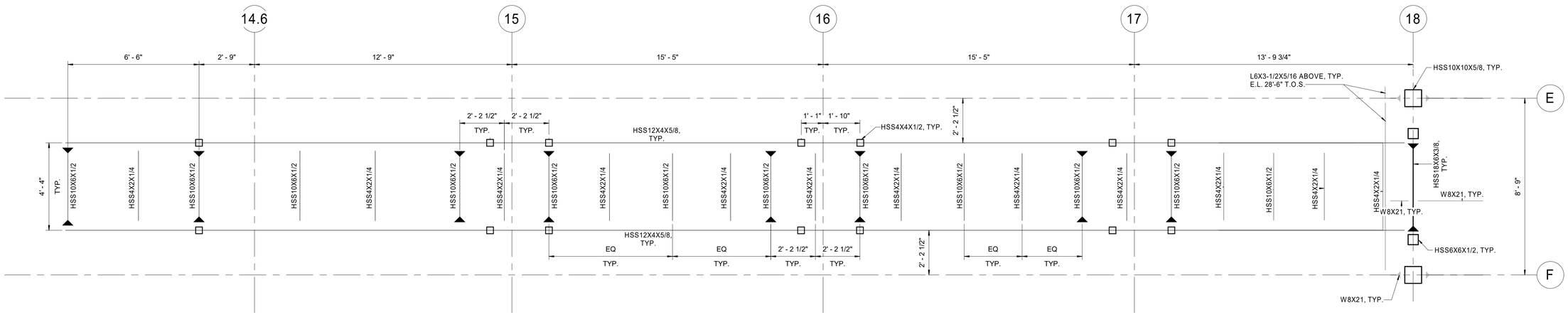


TOWER - 2 STAIR ROOF FRAMING PLAN

1 / S-402

3/8" = 1'-0"

0 2' 4' 6'



TOWER - 1 STAIR ROOF FRAMING PLAN

2 / S-402

3/8" = 1'-0"

0 2' 4' 6'

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DOCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

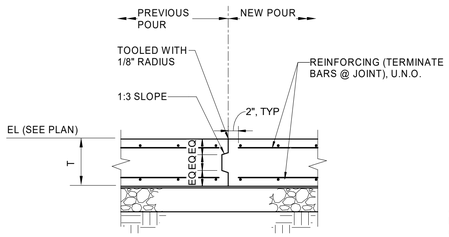
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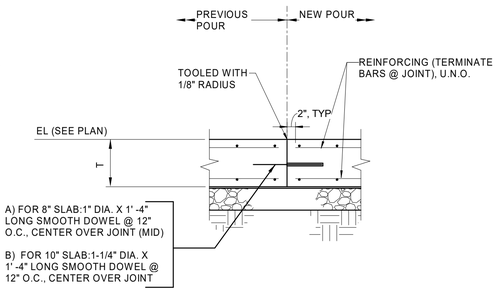
QUANTICO STATION

STAIR ROOF FRAMING ENLARGED PLANS

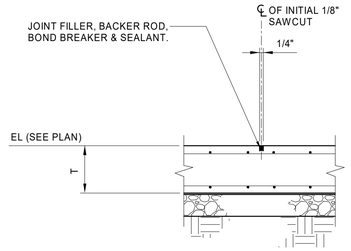
IFB NO: IFB-020-019
DRAWING NO: S-402
SCALE: 3/8" = 1'-0"
SHEET NO: 131 OF 202



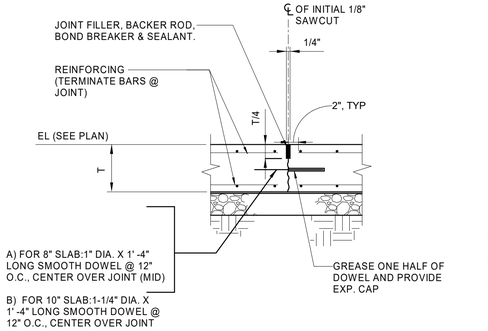
CONSTRUCTION JOINT - KEYED



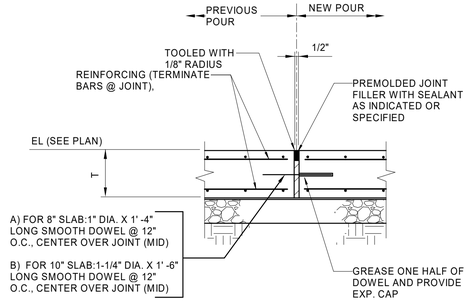
CONSTRUCTION JOINT - DOWELED



CONTROL JOINT (CJ)



CONTRACTION JOINT (CNJ)



EXPANSION JOINT (EJ)

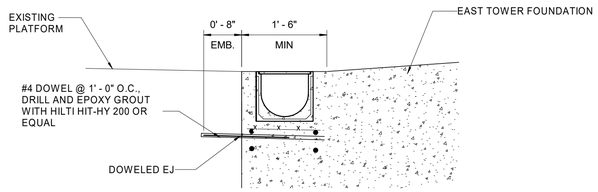
NOTES:

1. CONTRACTOR HAS THE OPTION OF USING EITHER DOWELED OR KEYED CONCTRUCTION JOINT.
2. CONTRACTION JOINTS NOTED ON PLAN BY C.N.J. MAY BE EITHER CONSTRUCTION JOINTS OR CONTRACTION JOINTS AT CONCTRACTOR'S OPTION. JOINTS TERMINATING A POUR SHALL BE CONSTRUCTION JOINTS OR EXPANSION JOINTS.
3. CONTRACTION JOINTS SHALL BE SAW CUT AND ALL JOINTS SHALL BE SEALED WITH JOINT SEALANT.
4. FOR LOCATION OF JOINTS AND SLAB THICKNESS (T), SEE SLAB PLANS.

1 TYPICAL PLATFORM (SLAB ON GRADE) JOINT DETAILS

S-501

NOT TO SCALE



2 SLAB CONNECTION AT EAST PLATFORM

S-501

3/4" = 1'-0"

0 1' 2' 3'

CONCRETE REINFORCING DEVELOPMENT LENGTH (Ld) AND LAP SPLICE

BAR SIZE	COLUMNS LD		
f'c	3ksi	4ksi	5ksi
#3	17	15	13
#4	22	19	17
#5	28	25	22
#6	34	29	26
#7	49	43	38
#8	55	48	43
#9	62	54	48
#10	70	60	54
#11	77	67	60

BAR SIZE	SLABS/MATS THICKNESS GREATER THAN 12"								
	ALL BARS			BOTT. BARS			ALL BARS		
f'c	3ksi	4ksi	5ksi	3ksi	4ksi	5ksi	3ksi	4ksi	5ksi
#3	17	15	13	17	15	13	22	19	17
#4	22	19	17	22	19	17	30	26	23
#5	28	25	22	28	25	22	36	31	28
#6	34	29	26	34	29	26	44	38	34
#7	72	63	56	72	63	56	94	82	73
#8	83	72	64	83	72	64	107	93	83
#9	93	81	72	93	81	72	121	105	94
#10	105	92	81	105	92	81	137	119	106
#11	116	101	90	116	101	90	151	131	117

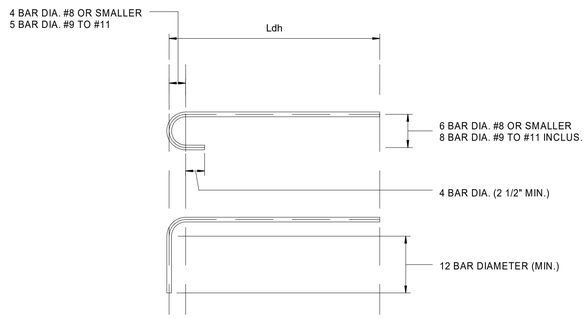
BAR SIZE	WALLS VERTICAL BARS						HORIZONTAL BARS					
	CASE 1			CASE 2			CASE 1			CASE 2		
f'c	3ksi	4ksi	5ksi	3ksi	4ksi	5ksi	3ksi	4ksi	5ksi	3ksi	4ksi	5ksi
#3	17	15	13	26	22	20	22	19	17	32	26	25
#4	22	19	17	34	29	26	30	27	23	44	38	34
#5	28	25	22	41	36	32	36	31	28	54	47	42
#6	34	29	26	50	44	39	44	38	34	65	56	50
#7	49	43	38	72	63	56	63	55	49	94	82	73
#8	55	48	43	83	72	64	72	63	56	107	93	83
#9	62	54	48	93	81	72	81	71	63	121	105	94
#10	70	60	54	105	92	81	92	80	71	137	119	106
#11	77	67	60	116	101	90	101	87	78	151	131	117

NOTES:

1. TABLE ABOVE LIST VALUES OF "Ld" IN INCHES.
2. MULTIPLICATION FACTORS FOR HIGHER STRENGTH CONCRETE:
   f'c = 6 KSI LD = 0.91 x 5 KSI TABLE VALUE
   f'c = 8 KSI LD = 0.79 x 5 KSI TABLE VALUE
   f'c = 10 KSI LD = 0.71 x 5 KSI TABLE VALUE
   f'c = 12 KSI LD = 0.64 x 5 KSI TABLE VALUE
3. ALL LAP SPLICES SHALL BE 1.3 Ld UNLESS NOTED OTHERWISE ON THE DRAWINGS.
4. FOR LIGHTWEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3
5. FOR EPOXY-COATED BARS, MULTIPLY THE TABULATED VALUE BY 1.5.
6. COMBINATIONS OF EFFECTS DUE TO THE CONCRETE STRENGTH, WEIGHT, AND EPOXY BARS ARE CUMULATIVE. Ld SHALL BE MULTIPLIED BY EACH FACTOR TO OBTAIN THE CORRECT VALUE.

TABLE ASSUMPTIONS:

1. A MINIMUM CLEAR COVER AS LISTED IN THE GENERAL NOTES.
2. A MINIMUM CLEAR SPACING OF 3" BETWEEN BARS.
3. fy=60 ksi
4. NORMAL WEIGHT CONCRETE.
5. FOR WALLS:
   CASE 1 = CLEAR SPACING ≥ 2 db AND CLEAR COVER ≥ db
   CASE 2 = OTHER THAN CASE 1



NOTE: FOR DEVELOPMENT LENGTH Ldh SEE SCHEDULE.

3 TYPICAL STANDARD HOOK

S-501

N.T.S.

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
GILBERT WILLIAM BUCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

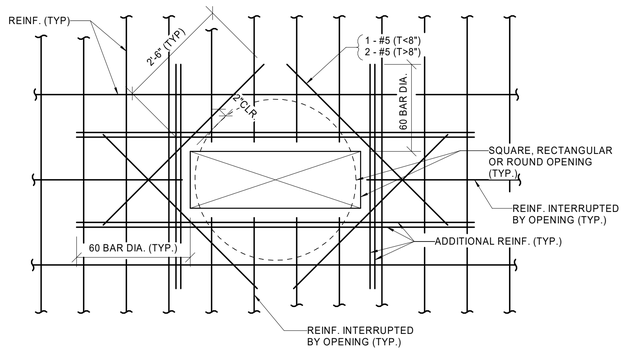
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QUANTICO STATION

TYPICAL CONCRETE DETAILS (SHEET 1 OF 3)

IFB NO: IFB-020-019
DRAWING NO: S-501
SCALE: AS INDICATED
SHEET NO: 132 OF 202

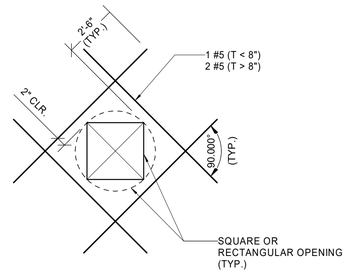


NOTES:

- T = FLOOR OR WALL THICKNESS
- EXTEND ADDITIONAL REINFORCEMENT BEYOND FACE OF OPENING A DISTANCE EQUAL TO 60 BAR DIAMETER HOOK ADDED REINFORCING AT SLAB EDGES OR ENDS OF WALL IF NECESSARY.
- ADDITIONAL REINFORCING EACH SIDE OF OPENING SHALL BE SAME SIZE AND EQUAL TO 1/2 OF INTERRUPTED REINFORCING DISTRIBUTE ADDED REINFORCEMENT. EQUALLY ON EACH SIDE OF OPENING.
- IF FLOOR OPENING IS FRAMED WITH STEEL OR CONCRETE BEAMS, ADDITIONAL REINFORCEMENT IS NOT REQUIRED EXCEPT FOR #5 DIAGONAL CORNER BARS.

1 S-502 ADDITIONAL REINFORCEMENT REQUIRED AT FLOOR AND WALL OPENING (WHERE REINFORCING IS INTERRUPTED)

N.T.S

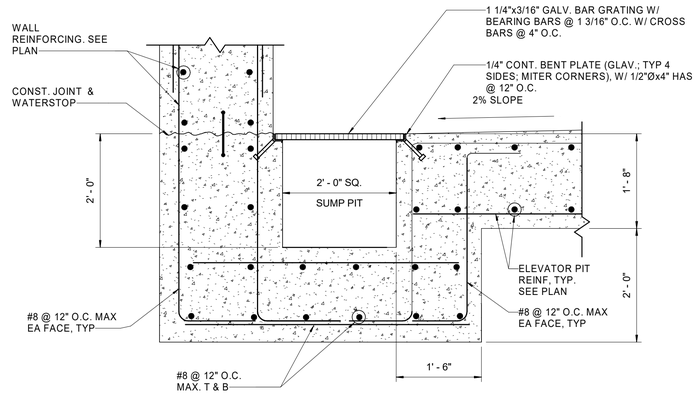


NOTES:

- T = FLOOR OR WALL THICKNESS
- ADDED REINFORCING NOT REQUIRED FOR OPENINGS LESS THAN 4" IN SIZE

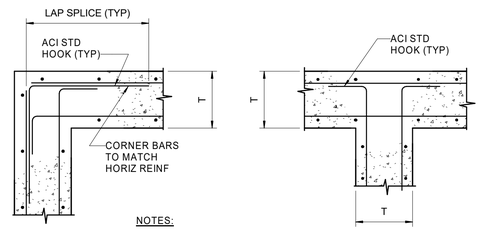
2 S-502 ADDITIONAL REINFORCING REQUIRED AT FLOOR AND WALL OPENING (WHERE REINFORCING IS NOT INTERRUPTED)

N.T.S.



3 S-502 TYPICAL SUMP PIT DETAIL

N.T.S.



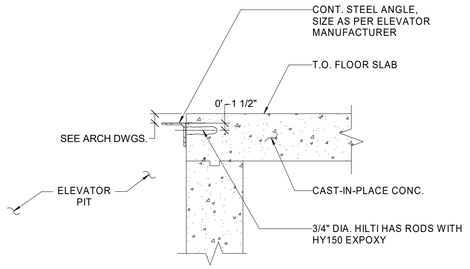
NOTES:

- T = WALL THICKNESS

CORNER **INTERSECTION**

4 S-502 TYPICAL WALL CORNER & INTERSECTION DETAILS

N.T.S.



WITH STEEL ANGLE

NOTE: SEE TYPICAL ELEVATOR PIT DETAIL FOR BALANCE OF INFORMATION.

5 S-502 TYPICAL ELEVATOR SILL DETAIL

N.T.S.

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DESIGNED BY: RB
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COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DOCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

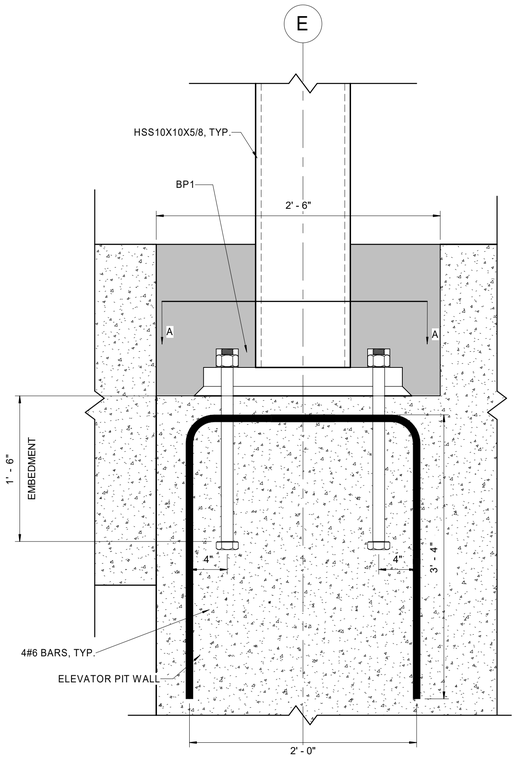
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QUANTICO STATION

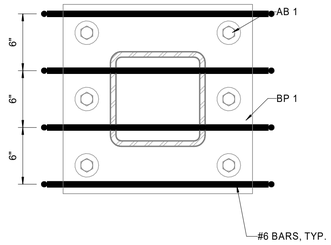
TYPICAL CONCRETE DETAILS (SHEET 2 OF 3)

IFB NO: IFB-020-019
DRAWING NO: S-502
SCALE: AS INDICATED
SHEET NO: 133 OF 202



1 ANCHOR REINFORCING FOR BP1

S-305 1 1/2" = 1'-0"



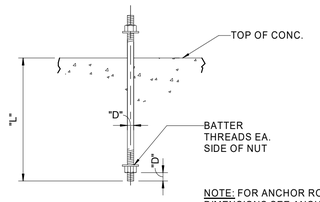
Section A-A

ANCHOR ROD SCHEDULE		
ANCHOR ROD MARK	EMBEDMENT 'L'	DIA 'D'
AB-1	18	1.5
AB-2	12	1.5
AB-3	6	0.75

NOTE: STEEL FABRICATOR SHALL PROVIDE ADEQUATE BOLT PROJECTION TO ALLOW FULL THREAD ENGAGEMENT OF BOLT W/NUT

2 ANCHOR ROD SCHEDULE

N.T.S.

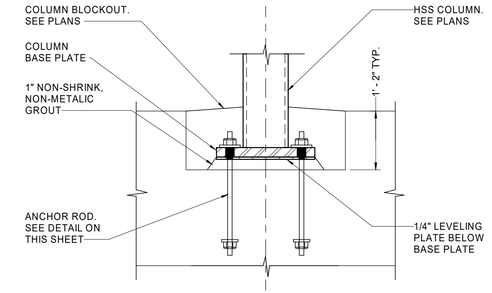


NOTE: FOR ANCHOR ROD DIMENSIONS SEE ANCHOR ROD SCHEDULE

TYPE "A"

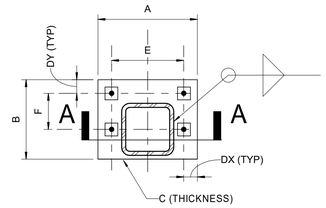
3 ANCHOR ROD DETAIL

N.T.S.

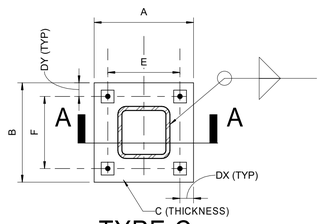


SECTION A

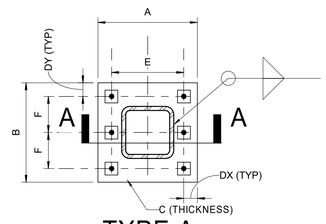
PLATE WASHER SCHEDULE			
ANCHOR ROD	SIZE	HOLE DIA	THICKNESS
AB-1	3.0	2	0.625
AB-2	3.0	2	0.625
AB-3	2.5	1.25	0.25



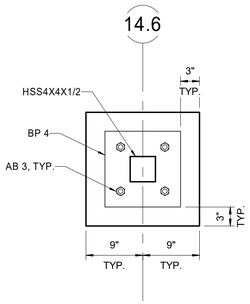
TYPE B



TYPE C

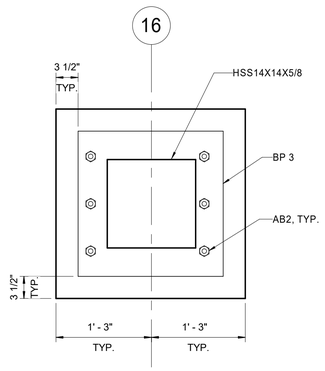


TYPE A



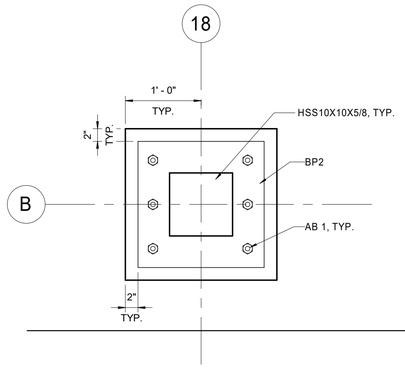
4 BASEPLATE 4 TYPICAL DETAIL

S-104 1" = 1'-0"



5 BASEPLATE 3 TYPICAL DETAIL

S-104 1" = 1'-0"



6 BASEPLATE 2 TYPICAL DETAIL

S-104 1" = 1'-0"

COLUMN BASE PLATE SCHEDULE										
BASE PLATE MARK	TYPE	ANCHOR ROD MARK	A	B	C	E	F	EDGE Dx	EDGE Dy	REMARKS
BP-1	A	AB-1	20	20	2	15	7	2.5	3	ELEVATOR TOWER COL.
BP-2	A	AB-1	20	20	2	15	7	2.5	3	TOWER COLUMN
BP-3	A	AB-2	23	23	2	19	7.5	2	3	STAIR COLUMN
BP-4	C	AB-3	12	12	2	7	7	2	2	STAIR POST
BP-5	C	AB-2	20	20	2	15	11	2	2	PLATFORM CANOPY COLUMN
BP-6	C	AB-3	13	13	1	10.5	5	2	2	PED BRIDGE CANOPY COLUMN
BP-7	B	AB-3	13	7	1	13.5	13	2	2	PED BRIDGE CANOPY COLUMN

NOTE: ALL DIMENSIONS ARE IN INCHES UNO

7 TYPICAL BASE PLATE DETAIL

12" = 1'-0"

INVITATION FOR BID
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APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DOCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

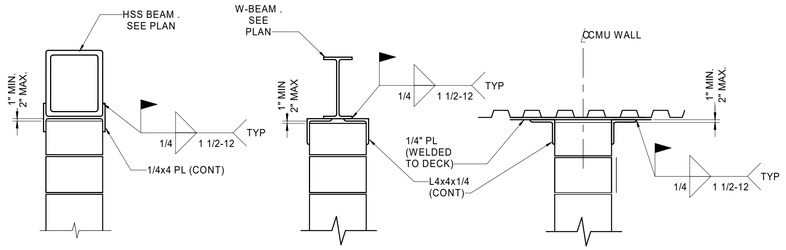
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TYPICAL CONCRETE DETAILS
(SHEET 3 OF 3)

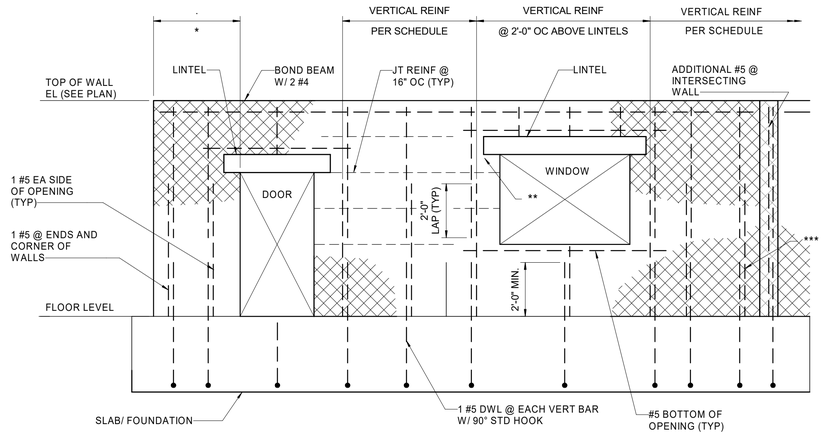
IFB NO: IFB-020-019
DRAWING NO: S-503
SCALE: AS INDICATED
SHEET NO: 134 OF 202



1 S-511

TYPICAL CMU WALL HORIZONTAL SUPPORT DETAILS

N.T.S.



NOTES:
1. * ALL WALL SEGMENTS 4'-0" & LESS SHALL BE GROUTED SOLID (ALL CORES).
2. ** GROUT SOLID FIRST 3 COURSES UNDER LINTEL BEARING (TYP).
3. *** VERTICAL BARS TO BE PLACED IN MAXIMUM LENGTHS OF 8'-8". LAP ALL BARS 2'-0". GROUT TO BE PLACED IN 4'-8" LIFTS AS CONSTRUCTION OF WALL PROGRESSES.

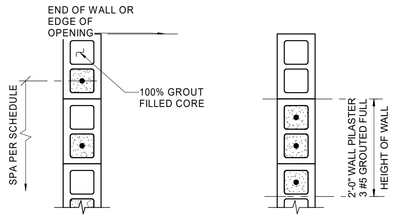
2 S-511

TYPICAL CMU WALL REINFORCING DETAIL

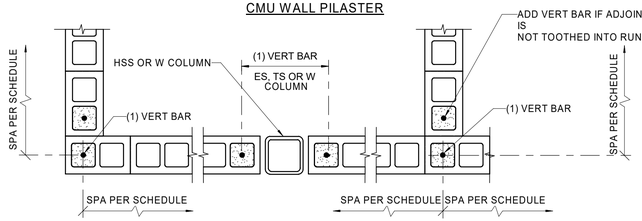
N.T.S.

CMU WALL REINFORCING SCHEDULE				
WALL THICKNESS	LOCATION	VERTICAL REINF	BOND BEAM SPACING +	COMMENTS
6"	EXTERIOR	#5@24	8'-0" OC VERT	FULLY GROUTED WALL
8"	EXTERIOR	#5@24	8'-0" OC VERT	

\+ ADDITIONAL BOND BEAM AT TOP OF WALL

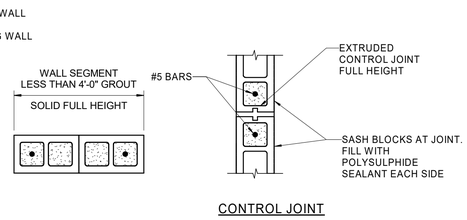


CMU WALL PILASTER



CORNER

INTERSECTION



CONTROL JOINT

NOTE:
- PROVIDE JOINTS AT INTERVALS NOT TO EXCEED 25 FEET.
- CONTROL JOINTS IN VENEER TO MATCH LOCATION OF JOINTS IN CMU BACK UP

3 S-511

CMU WALL DETAILS

N.T.S.

INVITATION FOR BID
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APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
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COMMONWEALTH OF VIRGINIA — ALBERT W. DUCKER JR. — Lic. No. 0402042778 — PROFESSIONAL ENGINEER — 6/10/20

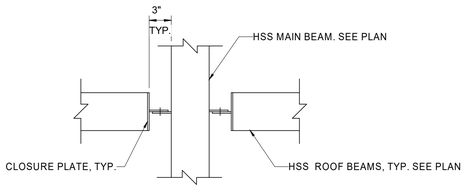
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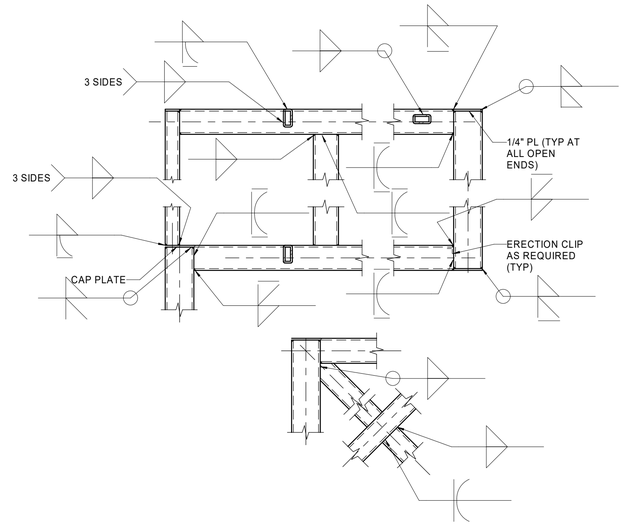
TYPICAL MASONRY DETAILS

IFB NO: IFB-020-019
DRAWING NO: S-511
SCALE: N.T.S.
SHEET NO: 135 OF 202



1 S-521 CANOPY ROOF BEAMS CONNECTION DETAIL

N.T.S.

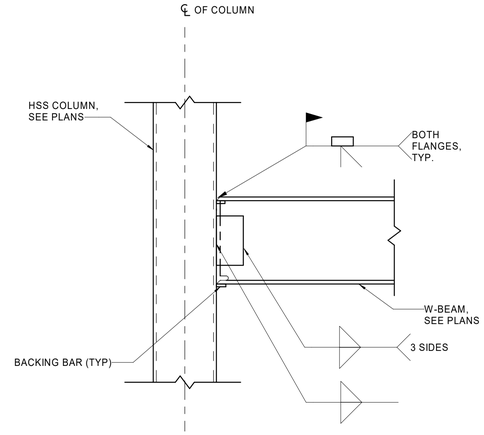


FABRICATORS NOTE:

FOR MEMBERS THAT ARE HERMETICALLY SEALED AND ARE SUBJECT TO WELDING OR HOT DIPPED GALVANIZING, PROVIDE VENT AND DRAIN HOLES OF PROPER SIZE TO FACILITATE DRAINAGE AND LOCATIONS WHERE WATER CANNOT ENTER BY GRAVITY FLOW.

2 S-521 TYPICAL HSS WELDED CONNECTIONS

N.T.S



NOTES:

A. DETAILS SHOWN ARE CONCEPTUAL ONLY. CONTRACTOR SHALL DETERMINE THE FOLLOWING BASED ON THE MOMENT AND SHEAR REQUIREMENTS INDICATED ON SHEET S-001.

1. THICKNESS OF BAKING BARS.
2. SIZE OF FILLET WELDS.
3. ADEQUACY OF COLUMN FOR SHEAR.

B. AT TOP LEVEL PROVIDE COLUMN 1/4" THICK MIN. CAP PLATE, U.N.O.

3 S-521 TYP. BEAM TO COLUMN MOMENT CONNECTION DETAIL

N.T.S.

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ALBERT WILLIAM DOCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

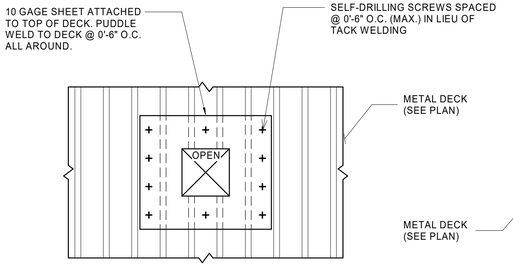
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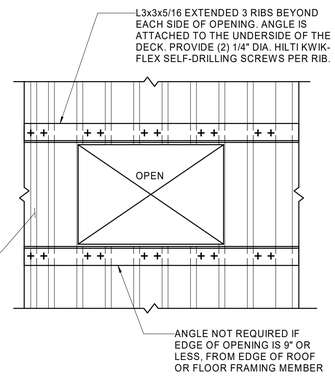
TYPICAL STEEL DETAILS

IFB NO: IFB-020-019
DRAWING NO: S-521
SCALE: AS INDICATED
SHEET NO: 135 OF 202



NOTE: NO PLATE REINFORCEMENT IS REQUIRED FOR OPENINGS 6" x 6" OR 6" DIAMETER OR SMALLER PLACED BETWEEN FLUTES, UNLESS THE 6" OR SMALLER OPENINGS OCCUR WITHIN 2'-0" OF EACH OTHER.

TYPICAL REINFORCEMENT FOR 6" TO 12" SQUARE OR ROUND OPENINGS



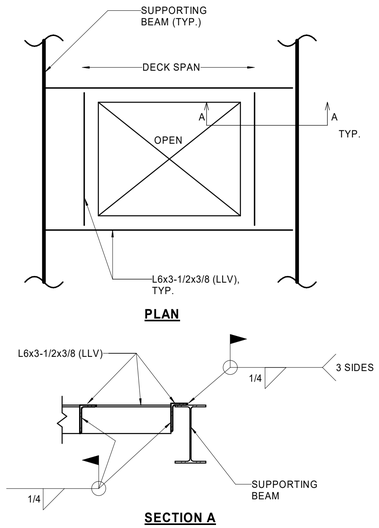
TYPICAL REINFORCEMENT FOR 1'-1" TO 2'-0" SQUARE OR ROUND OPENINGS

NOTES:

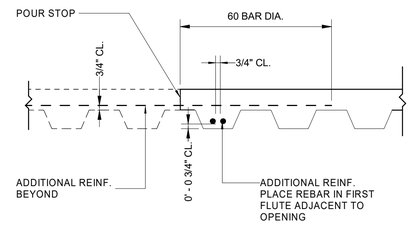
1. DECK SUPPORT DETAILS APPLY TO ROOF OPENINGS WHERE SUPPLEMENTAL FRAMING OR REINFORCING ARE NOT SHOWN.
2. INSTALL REINFORCING BEFORE CUTTING HOLES.
3. CONTRACTOR SHALL COORDINATE SIZE AND LOCATION OF OPENINGS WITH ALL OTHER DISCIPLINES.
4. NO REINFORCING REQUIRED IF OPENING IS 4" OR SMALLER PROVIDED ONLY ONE RIB IS INTERRUPTED.
5. CLUSTER OPENINGS THAT ARE SPACED LESS THAN 1'-0" SHALL BE TREATED AS ONE LARGE OPENING.
6. PROVIDE DECK CLOSURE PLATE AROUND OPENING AS REQUIRED.

1 S-522 TYPICAL ROOF METAL DECK OPENING SUPPORT

N.T.S.



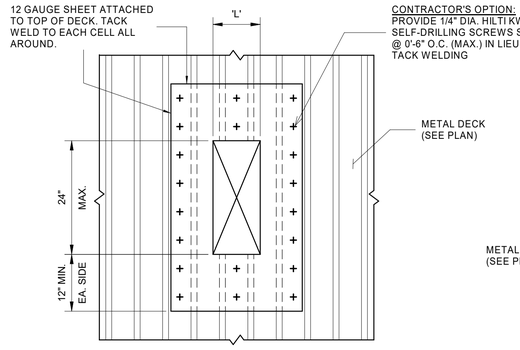
TYPICAL REINFORCEMENT FOR SQUARE OR ROUND OPENINGS GREATER THAN 2'-0" AND/OR OPENINGS AT ROOF HATCHES



SECTION 1

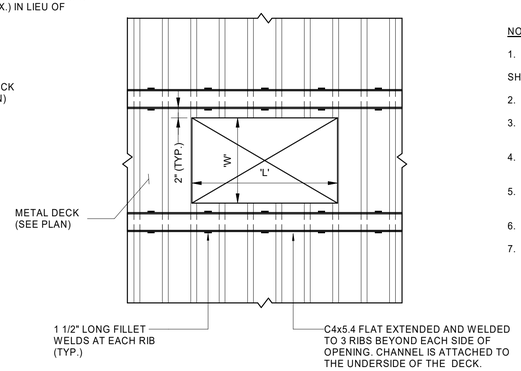
2 S-522 TYPICAL DETAILS FOR OPENINGS IN METAL DECK (COMPOSITE CONSTRUCTION) - SECTION 1

N.T.S.



NOTE: NO PLATE REINFORCEMENT IS REQUIRED FOR OPENINGS 6" x 6" OR 6" DIAMETER OR SMALLER PLACED BETWEEN FLUTES, UNLESS THE 6" OR SMALLER OPENINGS OCCUR WITHIN 2'-0" OF EACH OTHER.

TYPICAL REINFORCEMENT FOR OPENINGS FOR 'L' GREATER THAN 6" BUT SMALLER THAN 10"



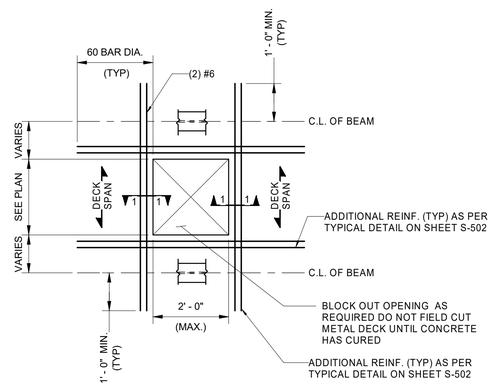
TYPICAL REINFORCEMENT FOR OPENINGS WHERE 'L' IS GREATER THAN 10" AND UP TO 2'-0" MAX. ('W' TO BE 2'-0" MAX.)

NOTES:

1. DECK SUPPORT DETAILS APPLY TO ROOF AND FLOOR OPENINGS WHERE SUPPLEMENTAL FRAMING OR REINFORCING ARE NOT SHOWN.
2. INSTALL REINFORCING BEFORE CUTTING HOLES.
3. CONTRACTOR SHALL COORDINATE SIZE AND LOCATION OF OPENINGS WITH ALL OTHER DISCIPLINES.
4. NO REINFORCING REQUIRED IF OPENING IS 4" OR SMALLER PROVIDED ONLY ONE RIB IS INTERRUPTED.
5. CLUSTER OPENINGS THAT ARE SPACED LESS THAN 1'-0" SHALL BE TREATED AS ONE LARGE OPENING.
6. PROVIDE DECK CLOSURE PLATE AROUND OPENING AS REQUIRED.
7. VERIFY LARGER OPENINGS WITH ENGINEER.

3 S-522 TYPICAL DETAILS FOR OPENINGS IN METAL DECK (PRE-COMPOSITE CONSTRUCTION OPTION)

N.T.S.



NOTE: VERIFY LARGER OPENINGS WITH ENGINEER.

4 S-522 TYPICAL DETAILS FOR OPENINGS IN METAL DECK (COMPOSITE CONSTRUCTION OPTION)

N.T.S.

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: RB
DRAWN BY: ZKS
CHECKED BY: AD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
ALBERT WILLIAM DOCKER JR
Lic. No. 0402042778
PROFESSIONAL ENGINEER
6/10/20

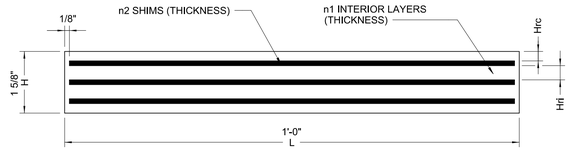
VRE

STV 100 Years
STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

TYPICAL STEEL DECK DETAILS

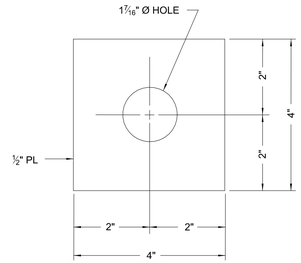
IFB NO: IFB-020-019
DRAWING NO: S-522
SCALE: AS INDICATED
SHEET NO: 137 OF 202



SOLE PLATE			
BEAM	W (IN)	B (IN)	T (IN)
1	10"	26"	1
2	10"	26"	1¼
3	10"	26"	2½

BEARING TABLE									
LOCATION	BEARING TYPE	#INTERNAL LAYERS	SPAN (IN)	W (IN)	L (IN)	H (IN)	Hrc (IN)	n1 @ Hri (IN)	n2 @ Hs (IN)
GRID E	FIXED	2	484.50	8	12	1.625	0.25	0.375	0.125
GRID D	EXPANSION	2	484.50	8	12	1.625	0.25	0.375	0.125
GRID C	EXPANSION	2	442.50	8	12	1.625	0.25	0.375	0.125
GRID B	FIXED	2	442.50	8	12	1.625	0.25	0.375	0.125

1 S-523 LAMINATED ELASTOMERIC BEARING PAD DETAIL
N.T.S.



3 S-523 WASHER WI
N.T.S.

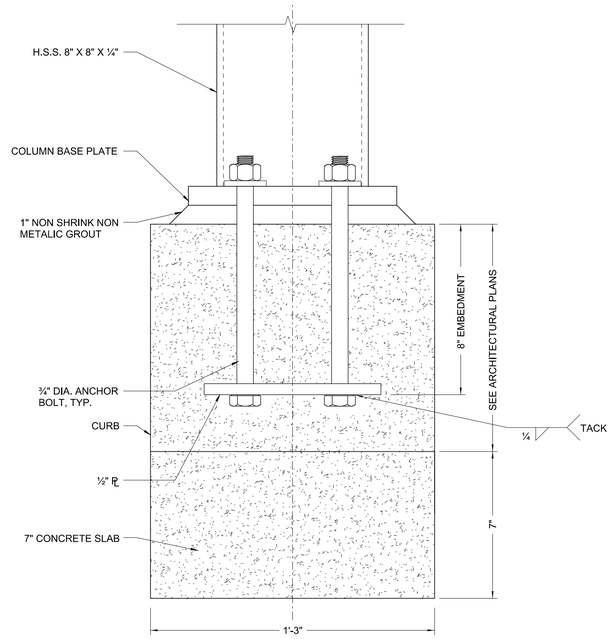
NOTES:

MATERIALS: ELASTOMERIC - 50 DUROMETER HARDNESS.

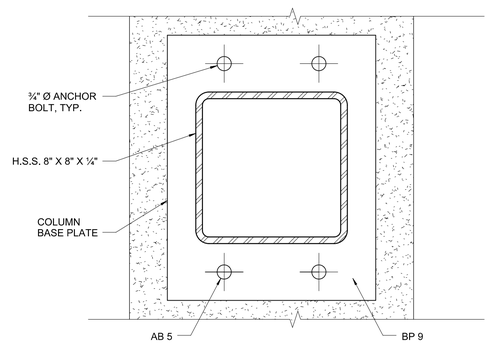
ELASTOMERIC BEARINGS SHALL BE MOLDED AS A SINGLE UNIT.

* WELD SHALL TERMINATE ¼" FROM EDGE OF SOLE PLATE.

CENTERLINE OF BEAM (INCLUDING CENTER LINE AND TEXT) SHALL BE MARKED ON THE TOP, BOTTOM AND SIDE SURFACES OF THE LAMINATED ELASTOMERIC BEARING PRIOR TO SHIPPING. THE MARKINGS SHALL BE DONE WITH AN INELIBLE INK OR FLEXIBLE PAINT OF CONTRASTING COLOR.



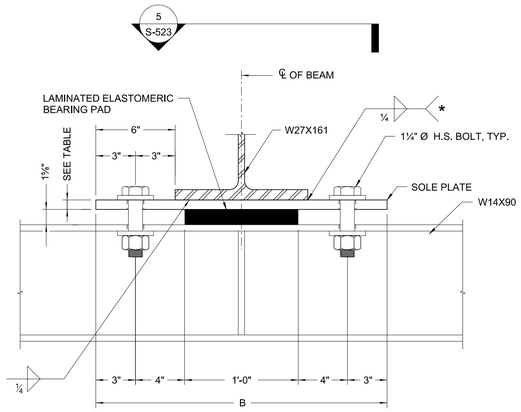
SECTION OF BASEPLATE



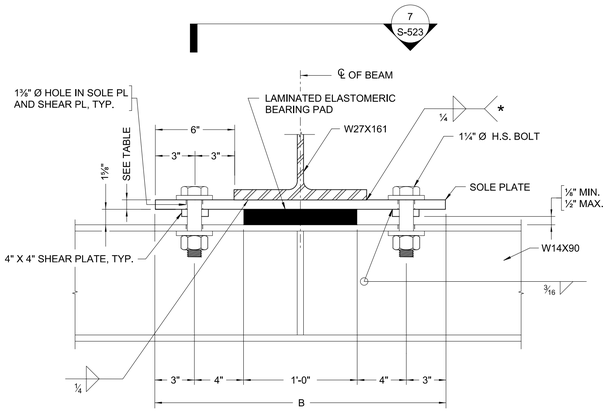
PLAN OF BASEPLATE

NOTE: FOR BASEPLATE AND ANCHOR BOLT DETAILS SEE S-503

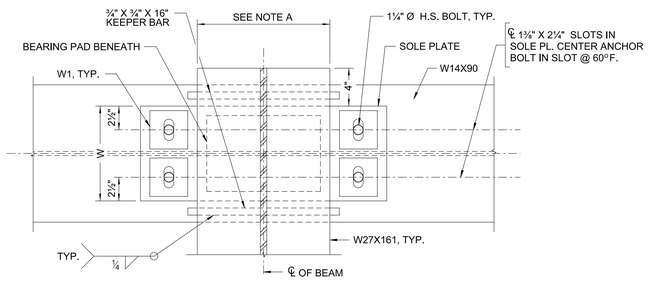
2 S-523 SECTION AND PLAN OF BASEPLATE AT THE BRIDGE
N.T.S.



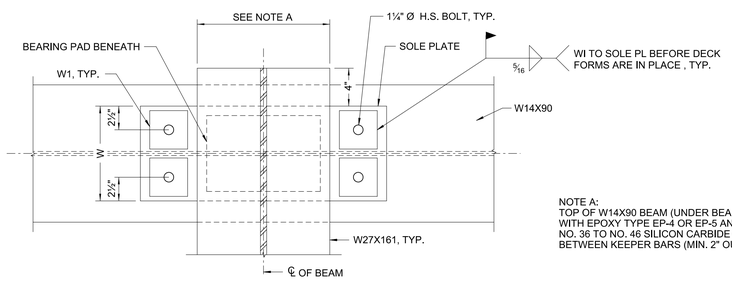
4 S-523 BEARING PAD DETAILS AT EXPANSION END
N.T.S.



6 S-523 BEARING PAD DETAILS AT FIXED END
N.T.S.



5 S-523 BEARING PAD PLAN AT EXPANSION END
N.T.S.



7 S-523 BEARING PAD PLAN AT FIXED END
N.T.S.

NOTE A:
TOP OF W14X90 BEAM (UNDER BEARING PAD) TO BE COATED WITH EPOXY TYPE EP-4 OR EP-5 AND THEN SURFACED WITH A NO. 36 TO NO. 46 SILICON CARBIDE OR ALUMINUM OXIDE GRIT BETWEEN KEEPER BARS (MIN. 2" OUTSIDE OF BEARING PAD).

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: MAJ
DRAWN BY: MAJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

TYPICAL DETAILS

IFB NO: IFB-020-019
DRAWING NO: S-523
SCALE: AS INDICATED
SHEET NO: 138 OF 202

$$FILE$$
$$DATE$$
$$TIME$$

SYMBOLS

SYMBOLS:	DESCRIPTION
LC-* H-* LP-*	HOMERUN FROM DEVICE BACK TO SOURCE INDICATED. PROVIDE CONDUIT AND WIRING AND CONNECT. SOLID LINE INDICATES CONDUIT AND WIRING EXPOSED. BROKEN LINE INDICATES CONDUIT AND WIRING BELOW GRADE OR IN SLAB. BRANCH CIRCUIT DESIGNATION TO CONTACTOR OR PANELBOARD WITH 3/4" CONDUIT AND 2#12, 1#12 U.O.N.
$	LIGHTING SWITCH WP INDICATES WEATHERPROOF M INDICATES HORSEPOWER RATED 3 INDICATES THREE WAY K INDICATES KEY OPERATED
P1 1	POLE MOUNTED FIXTURE INDICATES FIXTURE TYPE - SEE E-602 FOR FIXTURE SCHEDULE INDICATES LIGHTING CONTACTOR CIRCUIT
P2 1	POLE MOUNTED TWIN FIXTURES INDICATES FIXTURE TYPE - SEE E-602 FOR FIXTURE SCHEDULE INDICATES LIGHTING CONTACTOR CIRCUIT
	CANOPY LIGHT
	WALL MOUNTED FIXTURE
F L-12	LIGHTING FIXTURE - MOUNTING PER FIXTURE SCHEDULE, UNLESS OTHERWISE NOTED. INDICATES FIXTURE TYPE - SEE E-602 FOR FIXTURE SCHEDULE INDICATES BRANCH CIRCUIT NUMBER - SEE E-601 FOR PANEL SCHEDULES LED LIGHTING FIXTURE
	20 AMP DUPLEX CONVENIENCE RECEPTACLE - FLUSH MOUNTED GFI INDICATES GROUND FAULT CIRCUIT INTERRUPTER WP INDICATES WEATHERPROOF (PROVIDE LOCKING COVER)
	20 AMP DUPLEX CONVENIENCE RECEPTACLE - SURFACE MOUNTED
	20 AMP SINGLE PURPOSE RECEPTACLE - SURFACE MOUNTED NEMA 5-20R
M	ELECTRIC MOTOR - HP, VOLTAGE AND PHASE AS INDICATED
	CIRCUIT BREAKER DISCONNECT - POLES AND RATING AS INDICATED
	FUSED DISCONNECT SWITCH - POLES AND RATING AS INDICATED
HS	MANUAL MOTOR STARTING SWITCH
J	JUNCTION BOX - UNLESS INDICATED OR SPECIFIED USE TYPE AS REQUIRED BY THE NEC FOR THE APPLICATION
T	LINE VOLTAGE THERMOSTAT WITH THERMOMETER AND MANUAL RANGE ADJUSTMENT (FURNISHED BY OTHERS)
S	SPEAKER - BOGEN MODEL #SPT30A, WEATHERPROOF, WITH MOUNTING BRACKET. PROVIDE WITH 2"x4" JUNCTION BOX. MOUNT AS INDICATED ON PLANS. PROVIDE SHIELDED TWISTED PAIR 2#16, IN 3/4" CONDUIT AND TERMINATE AT BOTH ENDS FOR A FULLY FUNCTIONAL AND TESTED SYSTEM. COORDINATE TERMINATION LOCATIONS IN THE SERVER ROOM WITH VRE'S CONSTRUCTION MANAGER.
	INCOMING UTILITY SERVICE
	SECURITY CAMERA - PROVIDED AND INSTALLED BY VRE. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT, WIRE AND BOXES AND TEST INSTALLATION FOR PLUG AND PLAY CONNECTION BY VRE. PROVIDE WITH 4"x4" JUNCTION BOX. MOUNT AS INDICATED ON PLANS. PROVIDE 1" CND FROM CAMERA TO SERVER ROOM WITH CAT 6 WIRE. CABLES CAN BE COMBINED IN 1" CND AND SHALL NOT EXCEED 40% FILL. PROVIDE TERMINATIONS AT BOTH ENDS. COORDINATE TERMINATION LOCATIONS IN THE SERVER ROOM WITH VRE'S CONSTRUCTION MANAGER.
TVM	TICKET VENDING MACHINE - BY OTHERS. PROVIDE WIRING AND CONDUIT AS SHOWN ON PLAN. TERMINATE CABLES ON BOTH ENDS. COORDINATE TERMINATION LOCATIONS IN SERVER ROOM WITH VRE'S CONSTRUCTION MANAGER.
VMS	VIDEO MESSAGING SYSTEM MONITOR (BY OTHERS) WITH MOUNTING BRACKET AND COOLER - SEE ARCHITECTURAL DRAWINGS. PROVIDE WIRING AND CONDUIT AS SHOWN ON PLAN. TERMINATE CABLES ON BOTH ENDS. COORDINATE TERMINATION LOCATIONS IN SERVER ROOM WITH VRE'S CONSTRUCTION MANAGER.
M	ELECTRIC METER
	TELEPHONE OUTLET BOX WITH 1" CND AND 1 CAT 6 CABLE BACK TO SERVER ROOM. PROVIDE TERMINATIONS AT BOTH ENDS. COORDINATE TERMINATION LOCATIONS IN THE SERVER ROOM WITH VRE'S CONSTRUCTION MANAGER.
6 E-300	DETAIL NUMBER DETAIL OR LARGE SCALE PLAN CALLOUT SHEET WHERE DETAIL IS LOCATED
H	FIRE ALARM HEAT DETECTOR, CEILING MOUNTED
HRA	FIRE ALARM RATE - ANTICIPATION DETECTOR
T OR	TRANSFORMER
	ELECTRIC METER
	ELECTRIC PANEL
	FIRE ALARM HORN/STROBE, MOUNTED AT 6'-8" AFF

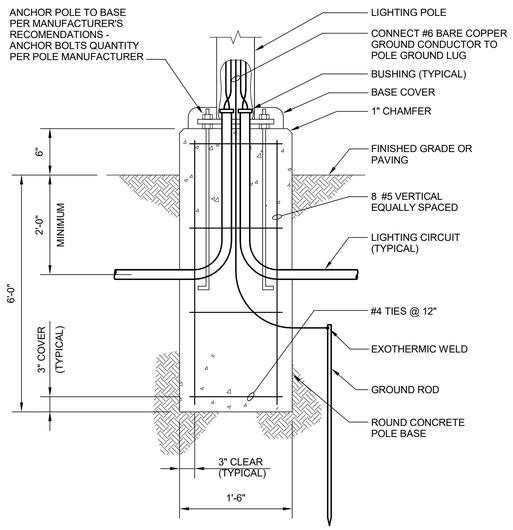
SYMBOLS (CONTINUED)

SYMBOLS:	DESCRIPTION
MM	MONITOR MODULE
CM	CONTROL MODULE
E	GENERATOR EMERGENCY STOP SWITCH
ATS	AUTOMATIC TRANSFER SWITCH
G	GENERATOR
P	PHOTOCELL

DRAWING INDEX

ELECTRICAL

E-001 LEGEND
E-002 ELECTRICAL COMMUNICATION AND EQUIPMENT PLAN
E-101 SITE PLAN - ELECTRICAL
E-102 DEMOLITION PLAN ELECTRICAL
E-201 ELECTRICAL LANDING AREA A
E-202 ELECTRICAL LANDING AREA B
E-203 ELECTRICAL LANDING AREA C
E-204 ELECTRICAL LANDING AREA D
E-205 BRIDGE LEVEL & ROOF LEVEL PLAN - ELECTRICAL
E-601 ONE LINE DIAGRAM AND RISER DIAGRAMS
E-602 SCHEDULES & DIAGRAMS



LIGHTING POLE BASE DETAIL

NOT TO SCALE

ABBREVIATIONS

A, AMP	AMPERES
AC	ALTERNATING CURRENT
A/C	AIR CONDITIONER
AF	AMPERE FUSE; AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
APPROX	APPROXIMATE
ARCH	ARCHITECT
AS	AMPERE SWITCH
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BKR	CIRCUIT BREAKER
BOT.	BOTTOM
C	CONDUIT
CKT(CIR)	CIRCUIT
CL	CENTERLINE
CO	COMPANY
COL.	COLUMN
COM	COMMUNICATIONS
CU	COPPER
CT	CURRENT TRANSFORMER
DIA	DIAMETER
DN	DOWN
DVP	DOMINION VIRGINIA POWER
DWG	DRAWING
E	EXISTING, EMPTY
EA	EACH
ELEC	ELECTRICAL (EQUIPMENT OR WIRING)
EC	EMPTY CONDUIT
EF	EXHAUST FAN
ELEV	ELEVATOR
EM, EMERG	EMERGENCY
EMBED	EMBEDMENT DEPTH
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EQUIP	EQUIPMENT
EXP	EXPANSION
EXT	EXTERIOR
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
G, GND, GRD	GROUND
GFI	GROUND FAULT CIRCUIT INTERRUPTER
HDSS	HEAVY DUTY SAFETY SWITCH
HP	HORSEPOWER
J, JB	JUNCTION BOX
KAIC	1000 AIC
KVA	THOUSAND VOLT AMPERES
KVAR	KILOVOLT AMPERES REACTIVE
KW	KILOWATTS
KWH	KILOWATT-HOURS
LED	LIGHT EMITTING DIODE
LC	LIGHTING RELAY CONTROLLER
LTG	LIGHTING
LTS	LIGHTS
LVL	LEVEL
MCB	MAIN CIRCUIT BREAKER
MD	DAMPER MOTOR
MECH	MECHANICAL
MIN	MINIMUM
MTD	MOUNTED
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OCP	OVER CURRENT PROTECTION
OD	OUTSIDE DIAMETER
OH, OHE	OVERHEAD ELECTRICAL
P	POLE OR PHASE
PA	PUBLIC ADDRESS
PB	PULL BOX
PF	POWER FACTOR
PH	PHASE
PL	PLATE
PNL, PANEL	CIRCUIT BREAKER PANELBOARD
PP	POWER PANEL
PRI	PRIMARY VOLTAGE (ABOVE 600 VOLTS)
PWR	POWER
RECEPT	RECEPTACLE
RQ'D	REQUIRED
RQM'TS	REQUIREMENTS
SEC	SECONDARY VOLTAGE (600 VOLTS OR LESS)
SEL	SELECTED
SP	SPACE
SS	STAINLESS STEEL
SVC	SERVICE
SURF	SURFACE
SW	SWITCH
TRANSF	TRANSFORMER
TYP	TYPICAL
TVM	TICKET VENDING MACHINE
UON	UNLESS OTHERWISE NOTED
UOS	UNLESS OTHERWISE SPECIFIED
V	VOLTS
VA	VOLT AMPERES
VFD	VARIABLE FREQUENCY DRIVE
VMS	VARIABLE MESSAGE SIGN
VRE	VIRGINIA RAILWAY EXPRESS
W	WATTS, WIRE
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF
WW	WIREWAY

GENERAL ELECTRICAL CONSTRUCTION NOTES:

1. THE DRAWINGS INDICATE THE EXTENT AND GENERAL ARRANGEMENT OF THE ELECTRICAL SYSTEMS.
2. LOCATIONS OF LINES AND EQUIPMENT SHALL BE DETERMINED FROM ACTUAL FIELD CONDITIONS. THE OUTLINES OF THE CONSTRUCTION SHOWN ON THE ELECTRICAL DRAWINGS ARE INTENDED ONLY AS A GUIDE TO INDICATE RELATIVE LOCATIONS OF THE WORK. REFER TO THE EQUIPMENT SUPPLIER'S INSTALLATION INSTRUCTIONS FOR EXACT LOCATIONS AND ARRANGEMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION AND PROPER RELATION OF HIS WORK TO THE FACILITY STRUCTURES AND TO THE WORK OF OTHER TRADES. NO ADDITIONAL COMPENSATION NOR EXTENSION OF COMPLETION TIME WILL BE GRANTED FOR EXTRA WORK CAUSED BY THE LACK OF COORDINATION.
4. DUE TO MINOR DIFFERENCES IN VARIOUS MANUFACTURER'S EQUIPMENT CONNECTIONS THE ELECTRICAL CONTRACTOR SHALL COORDINATE HIS INSTALLATION WITH THAT EQUIPMENT ACTUALLY FURNISHED AND SHALL VERIFY THE CORRECT SIZES AND DETAILS OF INSTALLATION BEFORE ROUGHING IN.
5. THE ELECTRICAL CONTRACTOR SHALL CONSULT WITH THE GENERAL CONSTRUCTION SUPERINTENDENT REGARDING THE LOCATION OF EQUIPMENT, DOOR SWINGS, BLOCK COURSING, ALIGNMENT OF THIS AND OTHER SIMILAR FEATURES BEFORE ROUGHING IN FOR SWITCHES, RECEPTACLES, THERMOSTATS, AND SIMILAR WIRING DEVICES.
6. ALL POWER DISTRIBUTION SYSTEM CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2011 NATIONAL ELECTRICAL CODE AND ALL APPLICABLE STATE AND LOCAL ORDNANCES. ALL FIRE ALARM WIRE SHALL BE IN CONDUIT.
7. CONTRACTOR SHALL PROVIDE BRANCH CIRCUIT WIRING TO ALL ITEMS WHICH REQUIRE ELECTRICAL CONNECTIONS. WHERE BRANCH CIRCUIT WIRING IS NOT SHOWN, CONTRACTOR SHALL CONNECT ITEMS TO THE CIRCUITS INDICATED. EXACT ROUTING OF CONDUITS AND WIRING SHALL BE DETERMINED BY THE CONTRACTOR IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
8. CONTRACTOR SHALL USE ONLY THOSE WIRING METHODS ALLOWED IN THE SPECIFICATIONS.
9. A MAXIMUM OF 3 CIRCUITS SHALL BE RUN IN ONE CONDUIT, CIRCUITS MUST BE ON SEPARATE PHASES. ALL CIRCUITS SHALL HAVE SEPARATE NEUTRALS; SHARING OF NEUTRALS IS PROHIBITED.
10. MINIMUM WIRE SIZE SHALL BE #12AWG, MINIMUM CONDUIT SIZE SHALL BE 3/4".

GENERAL ELECTRICAL DEMOLITION NOTES:

1. EQUIPMENT SHOWN IN HEAVY DASHED LINE WEIGHT ON DEMOLITION PLANS SHALL BE REMOVED. EQUIPMENT SHOWN IN LIGHT LINE WEIGHT ON DEMOLITION PLANS SHALL REMAIN.
2. WHERE REMOVAL OF ELECTRICAL WORK SHOWN, OR OF ASSOCIATED WIRING, INTERRUPTS SERVICE TO EXISTING ELECTRICAL EQUIPMENT TO REMAIN, THE CONTRACTOR SHALL EXTEND SERVICE TO REMAINING EQUIPMENT. ROUTING OF THIS EXTENDED SERVICE SHALL BE SUCH THAT IT DOES NOT INTERFERE WITH NEW WORK.
3. CONTRACTOR SHALL PROVIDE BLANK COVER PLATES ON ALL JUNCTION BOXES AND DEVICE BOXES WHICH ARE UNCOVERED AS A RESULT OF REMOVAL OF EQUIPMENT.
4. ALL ITEMS TO BE REMOVED SHALL BECOME PROPERTY OF CONTRACTOR AND SHALL BE REMOVED FROM SITE, UNLESS OWNER WISHES TO RETAIN OWNERSHIP OR IF ITEM IS SPECIFICALLY NOTED TO BE RELOCATED OR SALVAGED. CONTRACTOR SHALL COORDINATE DEMOLITION WORK WITH OWNER TO ASSURE THEIR RIGHT OF FIRST REFUSAL FOR ALL ITEMS BEING REMOVED FROM THE PROJECT.
5. ALL EXISTING SURFACES DAMAGED OR EXPOSED BY DEMOLITION OR REMOVAL OF EQUIPMENT SHALL BE PATCHED AND REPAIRED WITH MATERIALS AND FINISHES TO MATCH EXISTING ADJACENT SURFACES.
6. CONTRACTOR SHALL SCHEDULE AND COORDINATE ALL HIS WORK WITH OWNER TO MINIMIZE DISRUPTIONS TO ONGOING OPERATIONS AND DOWN-TIME TO EXISTING SYSTEMS.
7. REMOVAL OF DEVICE SHALL INCLUDE REMOVAL OF ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED.
8. THE CONTRACTOR SHALL COORDINATE DEMOLITION WORK WITH ALL TRADES.
9. ALL FLUORESCENT LIGHTING FIXTURES CONTAINING PCB CONTAMINATED BALLASTS SHALL BE DISPOSED OF IN ACCORDANCE WITH EPA REGULATIONS.

SCOPE OF ELECTRICAL WORK

1) ELECTRICAL SERVICE UPGRADE TO SUPPORT LIGHTING AND ELEVATORS.
2) SECURITY CAMERA UPGRADE TO MONITOR STATION.
3) VMS AND TVM ON PLATFORMS AND BRIDGE POWER AND COMMS. VRE SHALL FURNISH AND INSTALL ALL VMS AND TVM'S. ELECTRICAL CONTRACTOR SHALL SUPPLY ALL CONDUIT AND WIRING AND TERMINATE ON BOTH ENDS. COORDINATE INSTALLATION WITH VRE CONSTRUCTION MANAGER.
4) PA SYSTEM SPEAKERS. ELECTRICAL CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM WITH CONDUIT AND WIRES AND TERMINATE WIRES AT BOTH ENDS. COORDINATE INSTALLATION WITH VRE CONSTRUCTION MANAGER.
5) FIRE ALARM SYSTEM TO PROVIDE ELEVATOR RECALL.

CODES

ALL WORK SHALL COMPLY WITH THE CURRENT STATE OF VIRGINIA ADOPTED CODES AS LISTED BELOW:

1) VIRGINIA UNIFORM STATE WIDE BUILDING CODE 2018 (IBC).
2) NFPA 70 - NEC 2014.
3) NFPA 72 - NATIONAL FIRE ALARM CODE 2013.
4) 2015 INTERNATIONAL ENERGY CONSERVATION CODE.

DRAFT IFB PACKAGE
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: J. HOPKINS
DRAWN BY C. HENDRICKS
CHECKED BY: R. HALLMAN
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RANDALL I. HALLMAN
Lic. No. 44751
PROFESSIONAL ENGINEER
6-10-2020

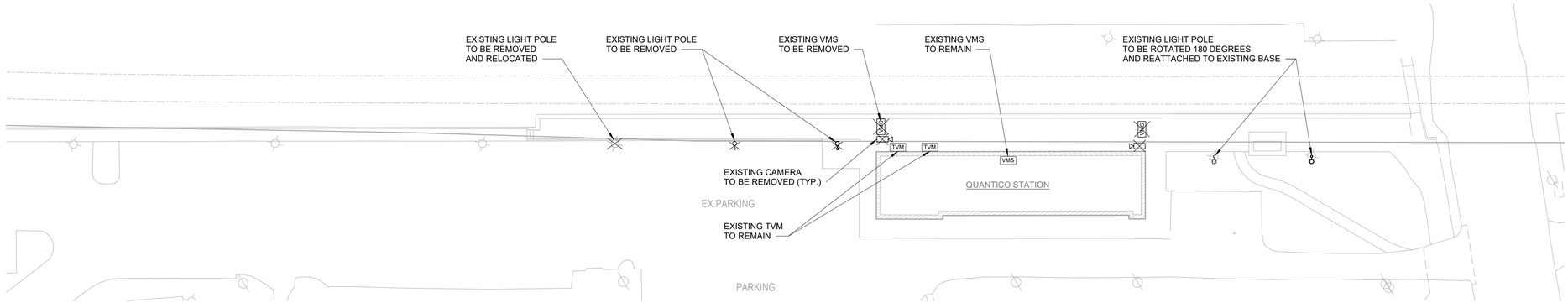
VRE

STV 100 Years
STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

LEGEND

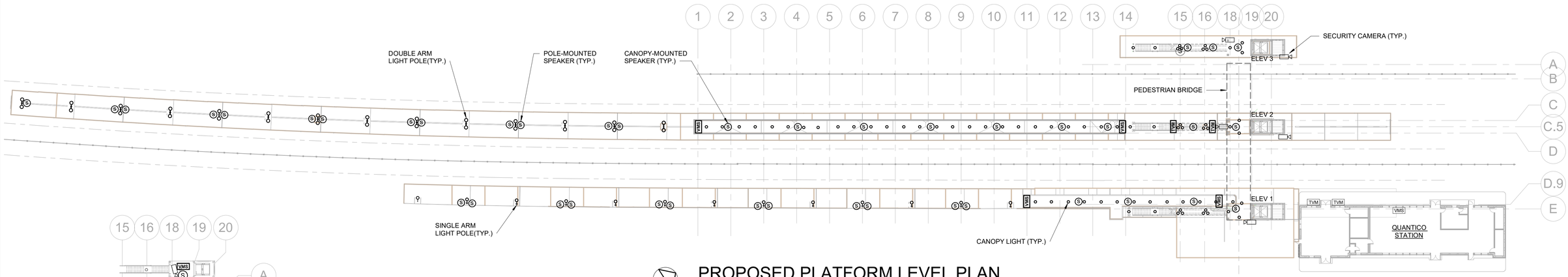
IFB NO: IFB-020-019
DRAWING NO: E-001
SCALE: 1" = 1'-0"
SHEET NO: 139 OF 202



EXISTING PLATFORM LEVEL PLAN

1" = 30'-0"

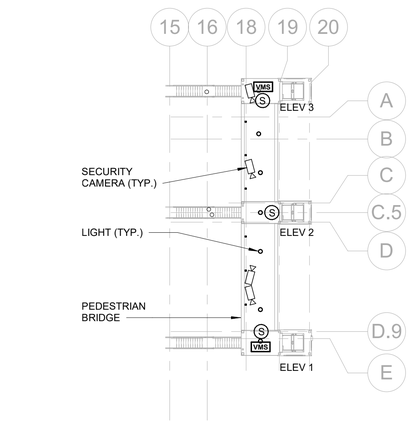
30' 0 30'



PROPOSED PLATFORM LEVEL PLAN

1" = 30'-0"

30' 0 30'



PROPOSED BRIDGE LEVEL PLAN

1" = 30'-0"

30' 0 30'

LEGEND		
SYMBOLS		QUANTITY
	EXISTING LIGHT POLE TO BE REMOVED	4
VMS	EXISTING VIDEO MESSAGING SYSTEM MONITOR TO BE REMOVED	2
	EXISTING CAMERA TO BE REMOVED	2
VMS	EXISTING VIDEO MESSAGING SYSTEM MONITOR TO REMAIN	1
TVM	EXISTING TICKET VENDING MACHINE TO REMAIN	2
	PROPOSED SINGLE ARM LIGHT POLE	13
	PROPOSED DOUBLE ARM LIGHT POLE	14
	PROPOSED CANOPY LIGHT	65
S	PROPOSED SPEAKER	40
	PROPOSED CAMERA LOCATION	9
VMS	PROPOSED VIDEO MESSAGING SYSTEM MONITOR LOCATION	4
TVM	PROPOSED TICKET VENDING MACHINE LOCATION	2

DRAFT IFB PACKAGE
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: J. HOPKINS
DRAWN BY C. HENDRICKS
CHECKED BY: R. HALLMAN
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RANDALL J. HALLMAN
Lic. No. 44751
PROFESSIONAL ENGINEER
6-10-2020

VRE

STV 100 Years
STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

ELECTRICAL COMMUNICATION & EQUIPMENT PLAN

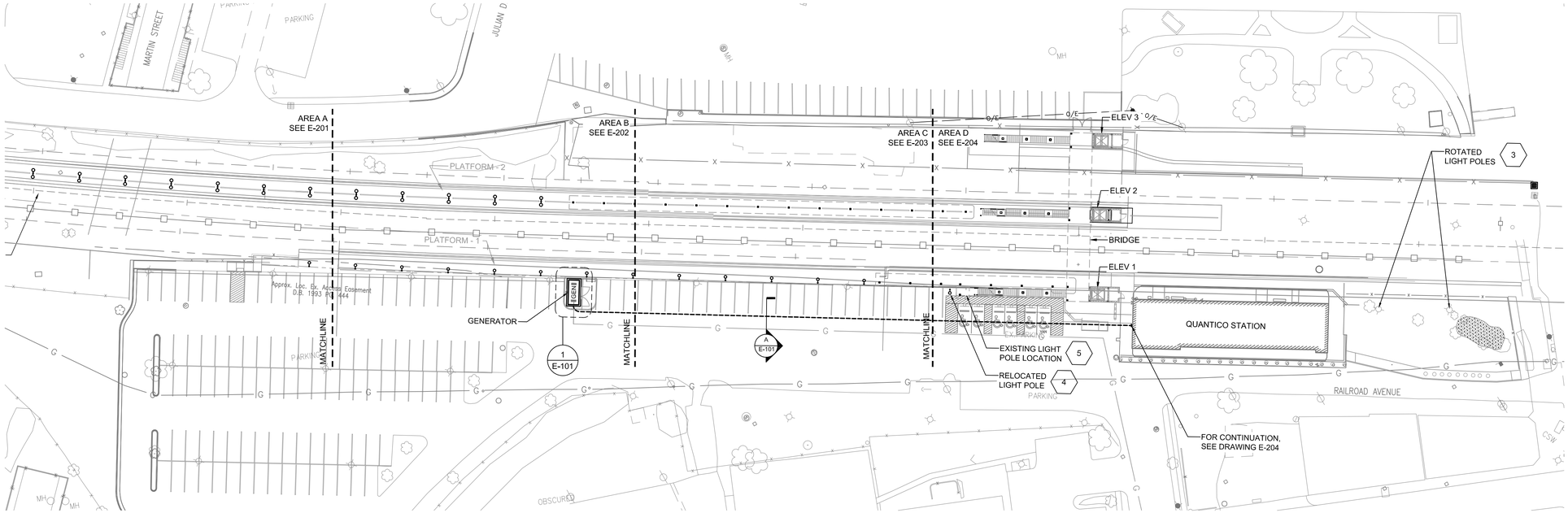
IFB NO: IFB-020-019
DRAWING NO: E-002
SCALE: AS INDICATED
SHEET NO: 140 OF 202

GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS AND SYMBOLS, SEE E-001.

SHEET KEYNOTES

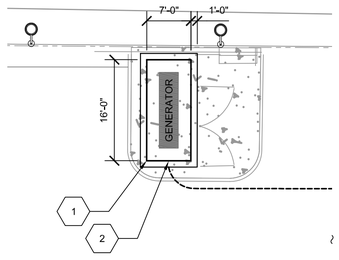
1. ESTIMATED GENERATOR SIZE AND PAD BASED ON BASIS OF DESIGN GENERATOR , THE PAD SHALL BE CONSTRUCTED BASED ON THE GENERATOR SHOP DRAWINGS. SEE DRAWING C-602 FOR APPROXIMATE DIMENSIONS.
2. STUB UP CONDUITS TO LOCATIONS SHOWN ON SHOP DRAWINGS.
3. DISCONNECT EXISTING LIGHTS. REMOVE LIGHT POLE AND ROTATE 180°. REINSTALL ON EXISTING FOUNDATION. RECONNECT EXISTING WIRING.
4. PROVIDE NEW POLE FOUNDATION TO MATCH EXISTING BOLT CIRCUIT OF LIGHT TO BE RELOCATED, EXTEND EXISTING WIRE AND CONDUIT TO INDICATED LOCATION. EXISTING LIGHT IS A TWIN, REMOVE ONE ARM AND LIGHT FIXTURE, REMAINING ARM SHALL BE DIRECTED TO THE PARKING LOT SIDE ONLY.
5. RELOCATE EXISTING LIGHT POLE. EXTEND EXISTING CONDUIT AND WIRE TO NEW LOCATION, APPROXIMATELY 15'.



SITE PLAN

1"=40'

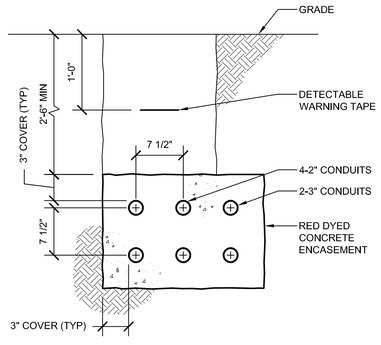
40' 0 40'



1 GENERATOR ENLARGED PLAN

E-101

1" =1'-0"



A SECTION

E-101

NOT TO SCALE

DRAFT IFB PACKAGE
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: J. HOPKINS
DRAWN BY: C. HENDRICKS
CHECKED BY: R. HALLMAN
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RANDALL I. HALLMAN
Lic. No. 44751
PROFESSIONAL ENGINEER
6-10-2020

VRE

STV 100 Years
STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

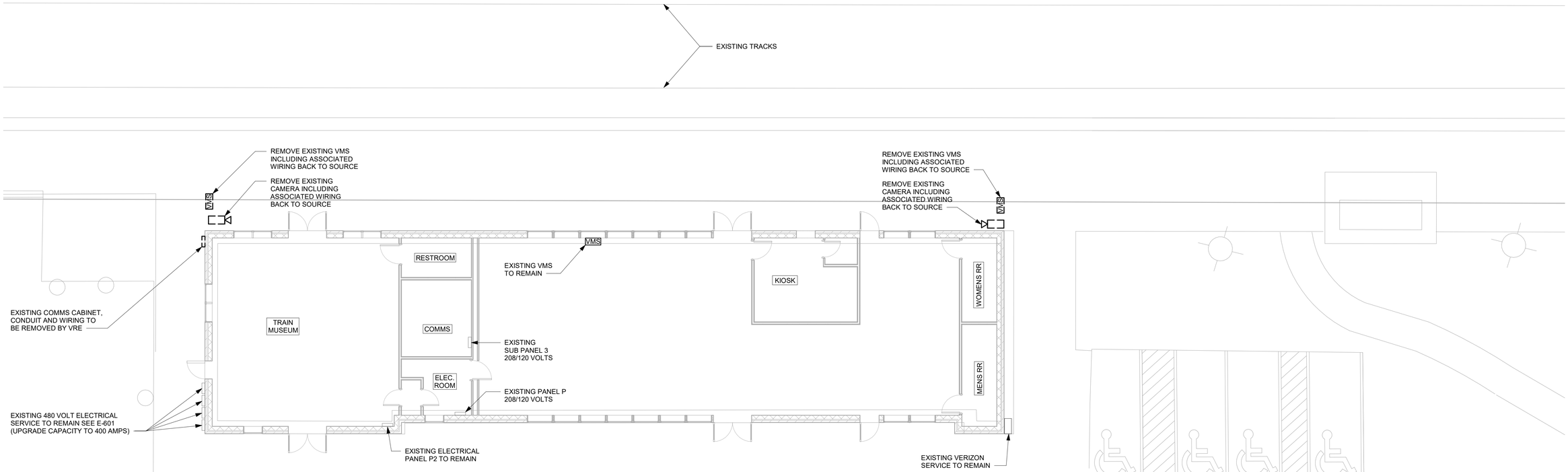
QUANTICO STATION

SITE PLAN ELECTRICAL

IFB NO: IFB-020-019
DRAWING NO: E-101
SCALE: AS INDICATED
SHEET NO: 141 OF 202

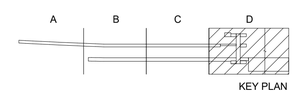
GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS AND SYMBOLS, SEE E-001.



DEMOLITION PLAN

1/8" = 1'-0" 0 4' 8' 16'



KEY PLAN

DRAFT IFB PACKAGE
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QUANTICO STATION

DEMOLITION PLAN ELECTRICAL

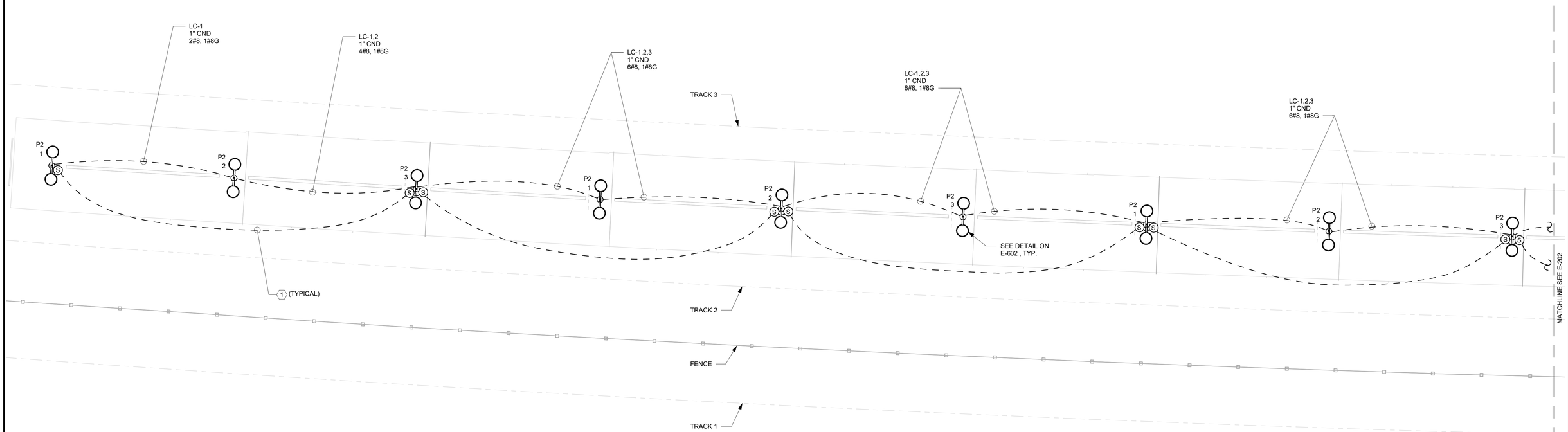
IFB NO: IFB-020-019
DRAWING NO: E-102
SCALE: 1/8" = 1'-0"
SHEET NO: 142 OF 202

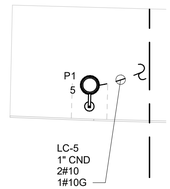
GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS AND SYMBOLS, SEE E-001.
2. PROVIDE CONDUIT EXPANSION FITTINGS AS REQUIRED TO MATCH STRUCTURAL EXPANSION JOINTS PER NEC.

SHEET KEYNOTES

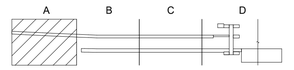
(1) PROVIDE 3/4" CONDUIT AND SPEAKER WIRE TO SERVER ROOM. TERMINATE SPEAKER WIRE AT BOTH ENDS FOR A FULLY FUNCTIONAL SYSTEM. COORDINATE TERMINATION LOCATIONS IN THE SERVER ROOM WITH VRE'S CONSTRUCTION MANAGER,





ELECTRICAL PLATFORM AREA A

1/8" = 1'-0" 0 4' 8' 16'



DRAFT IFB PACKAGE
NOT FOR CONSTRUCTION

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6-10-2020

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QUANTICO STATION

ELECTRICAL LANDING AREA A

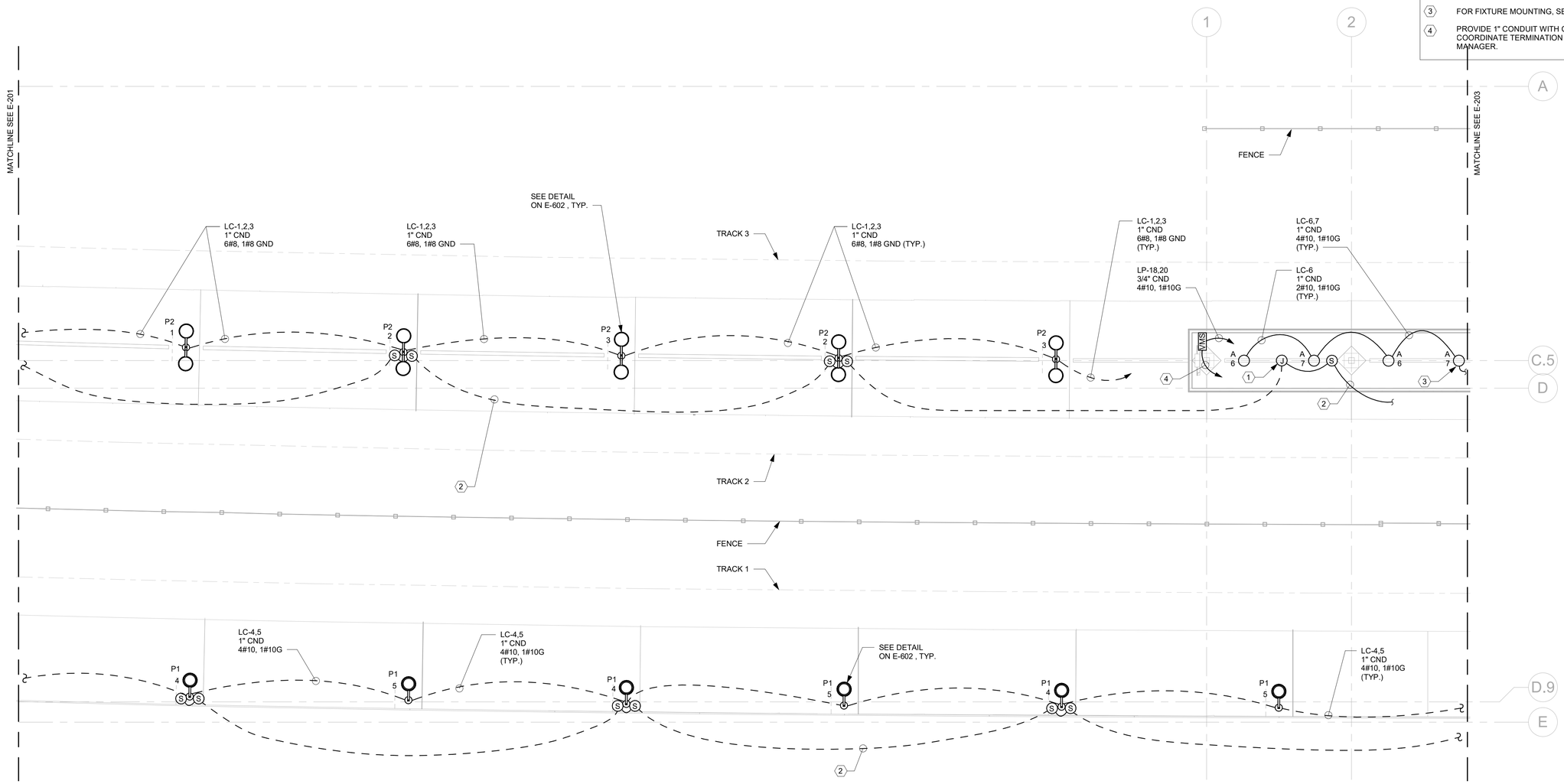
IFB NO: IFB-020-019
DRAWING NO: E-201
SCALE: 1/8" = 1'-0"
SHEET NO: 143 OF 202

GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS AND SYMBOLS, SEE E-001.
2. PROVIDE CONDUIT EXPANSION FITTINGS AS REQUIRED TO MATCH STRUCTURAL EXPANSION JOINTS PER NEC.

SHEET KEYNOTES

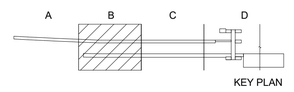
1. ROUTE CONDUIT AND WIRING DOWN CANOPY SUPPORT THROUGH SLAB PLATFORM TO NEXT SPEAKER.
2. PROVIDE 3/4" CONDUIT AND SPEAKER WIRE TO SERVER ROOM. TERMINATE SPEAKER WIRE AT BOTH ENDS FOR A FULLY FUNCTIONAL SYSTEM. COORINDATE TERMINATION LOCATIONS IN THE SERVER ROOM WITH VRE'S CONSTRUCTION MANAGER.
3. FOR FIXTURE MOUNTING, SEE DETAIL ON E-602
4. PROVIDE 1" CONDUIT WITH CAT-6e CABLE TO SERVER ROOM. TERMINATE WIRE AT BOTH ENDS. COORDINATE TERMINATION LOCATIONS IN THE SERVER ROOM WITH VRE'S CONSTRUCTION MANAGER.



ELECTRICAL PLATFORM AREA B

1/8" = 1'-0"

0 4' 8' 16'



KEY PLAN

DRAFT IFB PACKAGE
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: J. HOPKINS
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CHECKED BY: R. HALLMAN
DATE: 06/10/2020

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6-10-2020

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QUANTICO STATION

ELECTRICAL LANDING AREA B

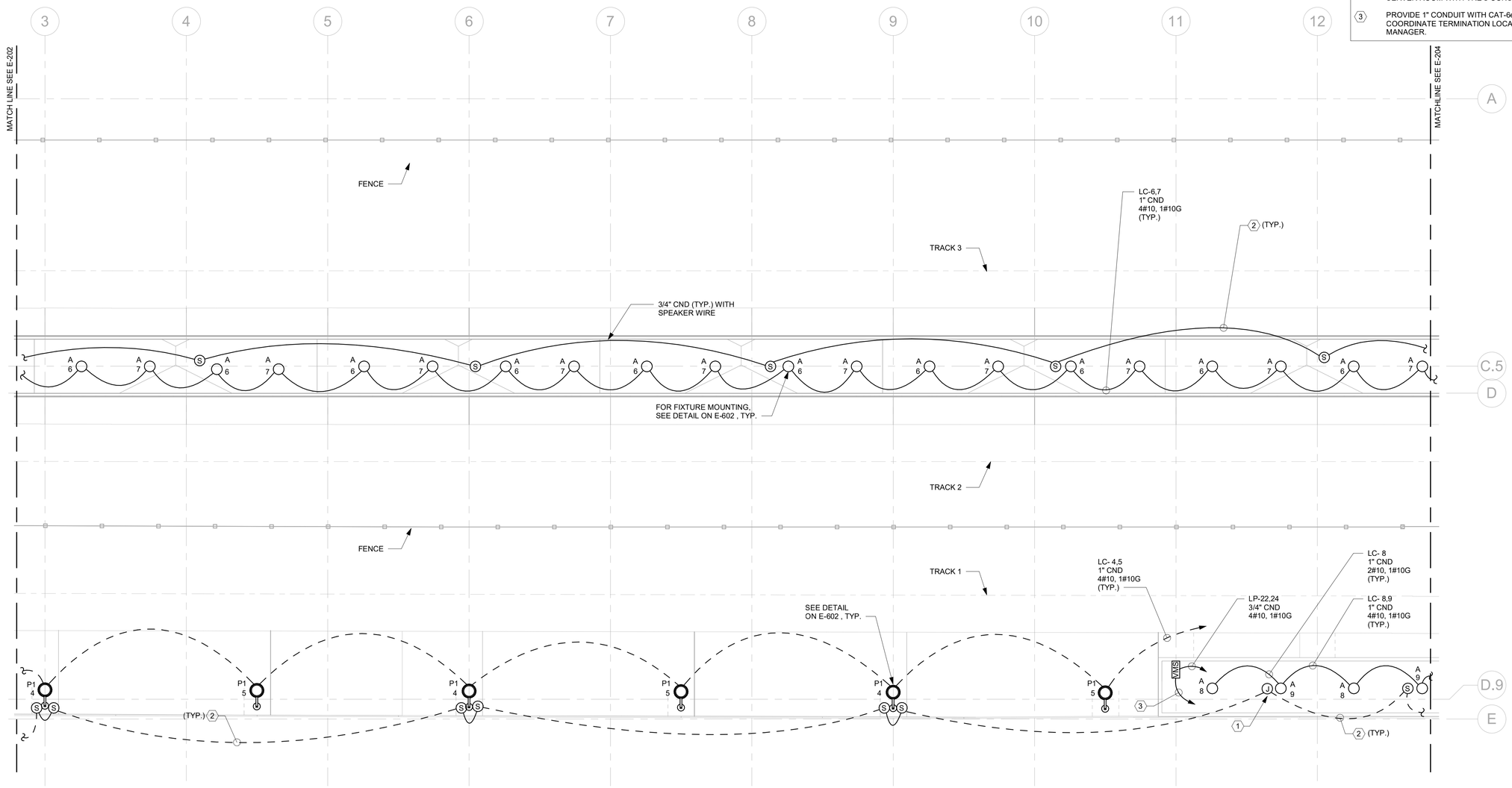
IFB NO: IFB-020-019
DRAWING NO: E-202
SCALE: 1/8" = 1'-0"
SHEET NO: 144 OF 202

GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS AND SYMBOLS, SEE E-001.
2. PROVIDE CONDUIT EXPANSION FITTINGS AS REQUIRED TO MATCH STRUCTURAL EXPANSION JOINTS PER NEC.

SHEET KEYNOTES

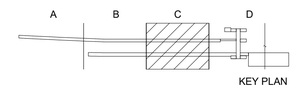
1. ROUTE CONDUIT AND WIRING DOWN CANOPY SUPPORT THROUGH SLAB PLATFORM TO NEXT SPEAKER.
2. PROVIDE 3/4" CONDUIT AND SPEAKER WIRE TO SERVER ROOM. TERMINATE SPEAKER WIRE AT BOTH ENDS FOR A FULLY FUNCTIONAL SYSTEM. COORINDATE TERMINATION LOCATIONS IN THE SERVER ROOM WITH VRE'S CONSTRUCTION MANAGER.
3. PROVIDE 1" CONDUIT WITH CAT-6e CABLE TO SERVER ROOM. TERMINATE WIRE AT BOTH ENDS. COORDINATE TERMINATION LOCATIONS IN THE SERVER ROOM WITH VRE'S CONSTRUCTION MANAGER.



ELECTRICAL PLATFORM AREA C

1/8" = 1'-0"

0 4' 8' 16'



KEY PLAN

DRAFT IFB PACKAGE
NOT FOR CONSTRUCTION

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6-10-2020

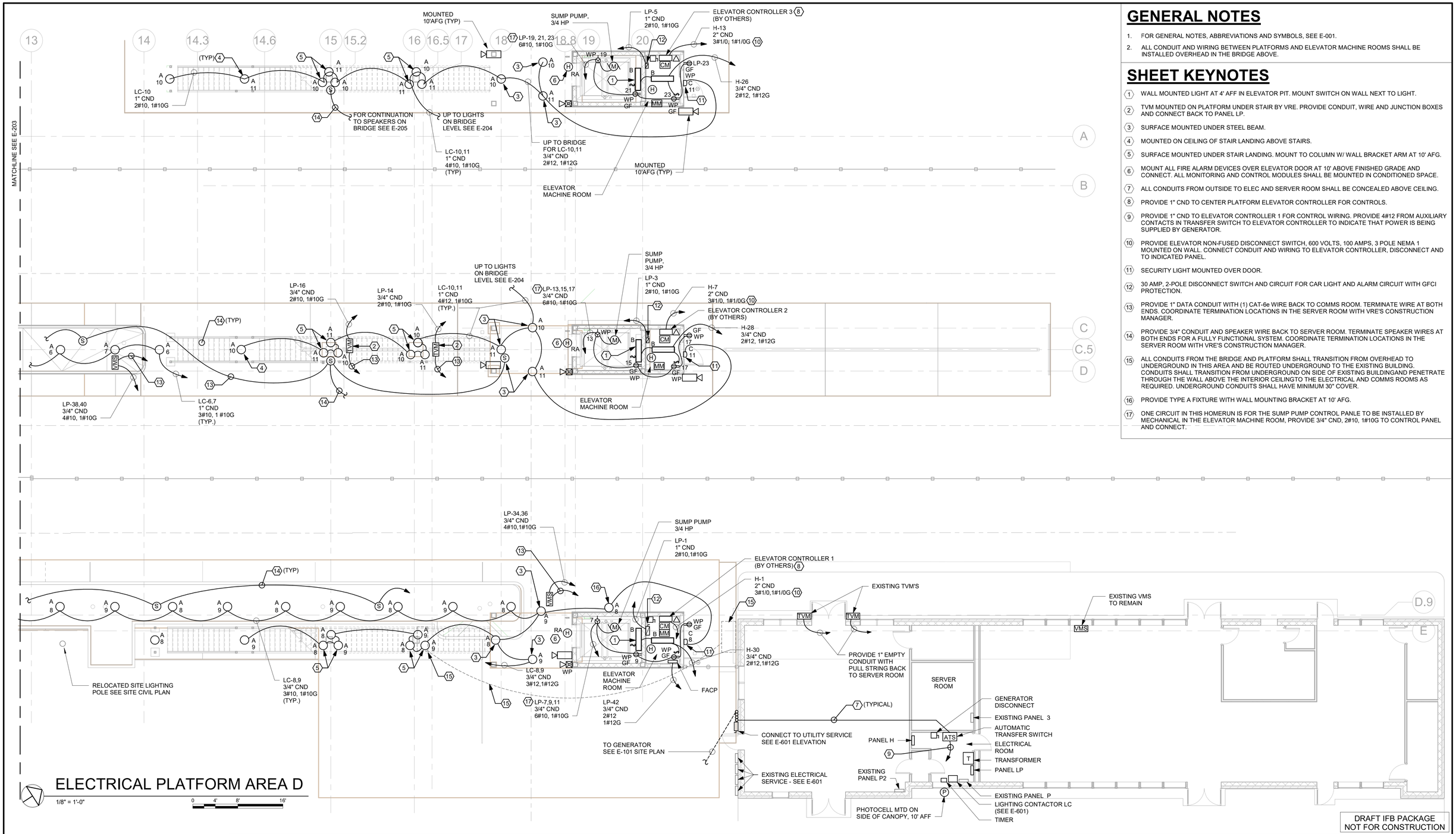
VRE

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QUANTICO STATION

ELECTRICAL LANDING AREA C

IFB NO: IFB-020-019
DRAWING NO: E-203
SCALE: 1/8" = 1'-0"
SHEET NO: 145 OF 202



ELECTRICAL PLATFORM AREA D

1/8" = 1'-0"

0 4' 8' 16'

GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS AND SYMBOLS, SEE E-001.
2. ALL CONDUIT AND WIRING BETWEEN PLATFORMS AND ELEVATOR MACHINE ROOMS SHALL BE INSTALLED OVERHEAD IN THE BRIDGE ABOVE.

SHEET KEYNOTES

1. WALL MOUNTED LIGHT AT 4' AFF IN ELEVATOR PIT. MOUNT SWITCH ON WALL NEXT TO LIGHT.
2. TVM MOUNTED ON PLATFORM UNDER STAIR BY VRE. PROVIDE CONDUIT, WIRE AND JUNCTION BOXES AND CONNECT BACK TO PANEL LP.
3. SURFACE MOUNTED UNDER STEEL BEAM.
4. MOUNTED ON CEILING OF STAIR LANDING ABOVE STAIRS.
5. SURFACE MOUNTED UNDER STAIR LANDING. MOUNT TO COLUMN W/ WALL BRACKET ARM AT 10' AFG.
6. MOUNT ALL FIRE ALARM DEVICES OVER ELEVATOR DOOR AT 10' ABOVE FINISHED GRADE AND CONNECT. ALL MONITORING AND CONTROL MODULES SHALL BE MOUNTED IN CONDITIONED SPACE.
7. ALL CONDUITS FROM OUTSIDE TO ELEC AND SERVER ROOM SHALL BE CONCEALED ABOVE CEILING.
8. PROVIDE 1" CND TO CENTER PLATFORM ELEVATOR CONTROLLER FOR CONTROLS.
9. PROVIDE 1" CND TO ELEVATOR CONTROLLER 1 FOR CONTROL WIRING. PROVIDE 4#12 FROM AUXILIARY CONTACTS IN TRANSFER SWITCH TO ELEVATOR CONTROLLER TO INDICATE THAT POWER IS BEING SUPPLIED BY GENERATOR.
10. PROVIDE ELEVATOR NON-FUSED DISCONNECT SWITCH, 600 VOLTS, 100 AMPS, 3 POLE NEMA 1 MOUNTED ON WALL. CONNECT CONDUIT AND WIRING TO ELEVATOR CONTROLLER, DISCONNECT AND TO INDICATED PANEL.
11. SECURITY LIGHT MOUNTED OVER DOOR.
12. 30 AMP, 2-POLE DISCONNECT SWITCH AND CIRCUIT FOR CAR LIGHT AND ALARM CIRCUIT WITH GFCI PROTECTION.
13. PROVIDE 1" DATA CONDUIT WITH (1) CAT-6e WIRE BACK TO COMMS ROOM. TERMINATE WIRE AT BOTH ENDS. COORDINATE TERMINATION LOCATIONS IN THE SERVER ROOM WITH VRE'S CONSTRUCTION MANAGER.
14. PROVIDE 3/4" CONDUIT AND SPEAKER WIRE BACK TO SERVER ROOM. TERMINATE SPEAKER WIRES AT BOTH ENDS FOR A FULLY FUNCTIONAL SYSTEM. COORDINATE TERMINATION LOCATIONS IN THE SERVER ROOM WITH VRE'S CONSTRUCTION MANAGER.
15. ALL CONDUITS FROM THE BRIDGE AND PLATFORM SHALL TRANSITION FROM OVERHEAD TO UNDERGROUND IN THIS AREA AND BE ROUTED UNDERGROUND TO THE EXISTING BUILDING. CONDUITS SHALL TRANSITION FROM UNDERGROUND ON SIDE OF EXISTING BUILDINGAND PENETRATE THROUGH THE WALL ABOVE THE INTERIOR CEILINGTO THE ELECTRICAL AND COMMS ROOMS AS REQUIRED. UNDERGROUND CONDUITS SHALL HAVE MINIMUM 30" COVER.
16. PROVIDE TYPE A FIXTURE WITH WALL MOUNTING BRACKET AT 10' AFG.
17. ONE CIRCUIT IN THIS HOMERUN IS FOR THE SUMP PUMP CONTROL PANLE TO BE INSTALLED BY MECHANICAL IN THE ELEVATOR MACHINE ROOM, PROVIDE 3/4" CND, 2#10, 1#10G TO CONTROL PANEL AND CONNECT.

A B C D

KEY PLAN

DRAFT IFB PACKAGE
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: J. HOPKINS
DRAWN BY C. HENDRICKS
CHECKED BY: R. HALLMAN
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RANDALL J. HALLMAN
Lic. No. 44751
PROFESSIONAL ENGINEER
6-10-2020

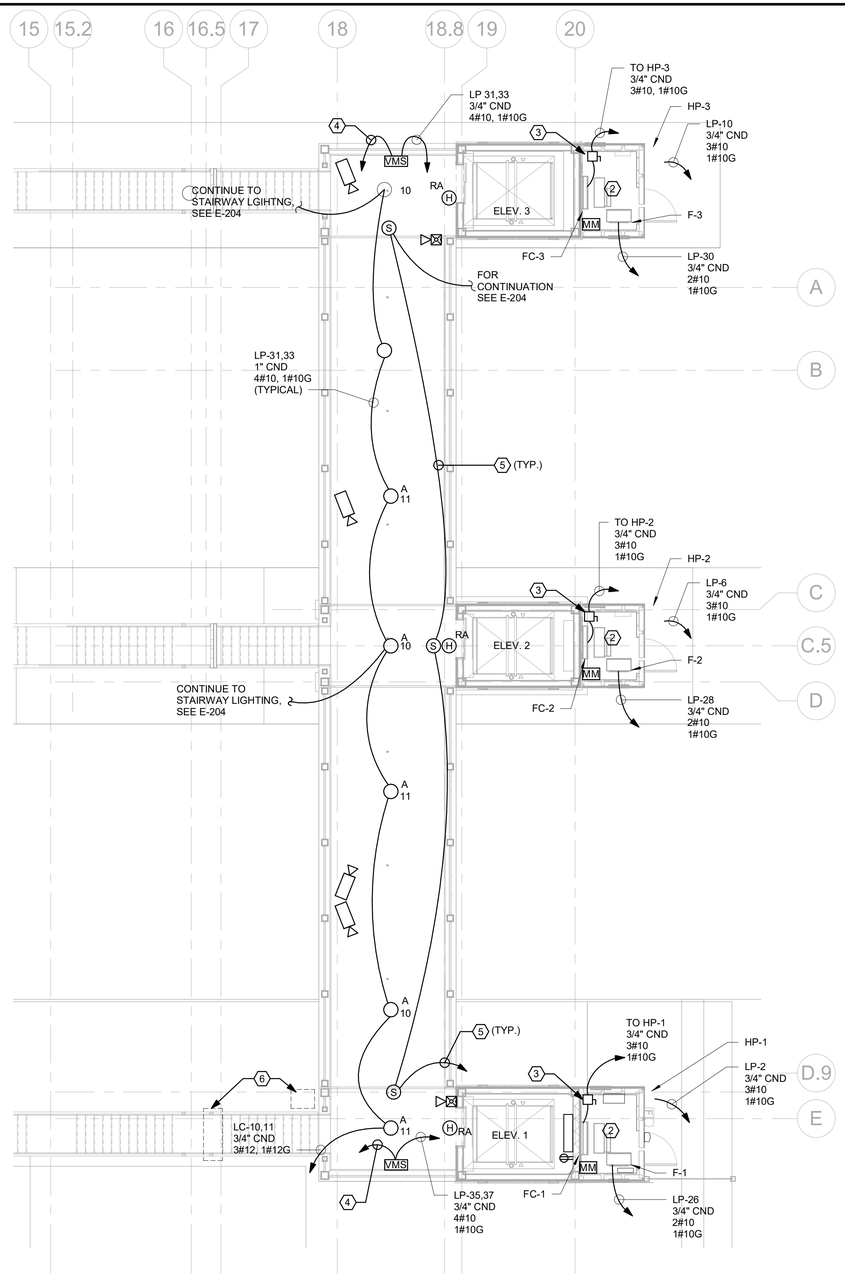
VRE

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Fairfax, VA 22031

QUANTICO STATION

ELECTRICAL LANDING AREA D

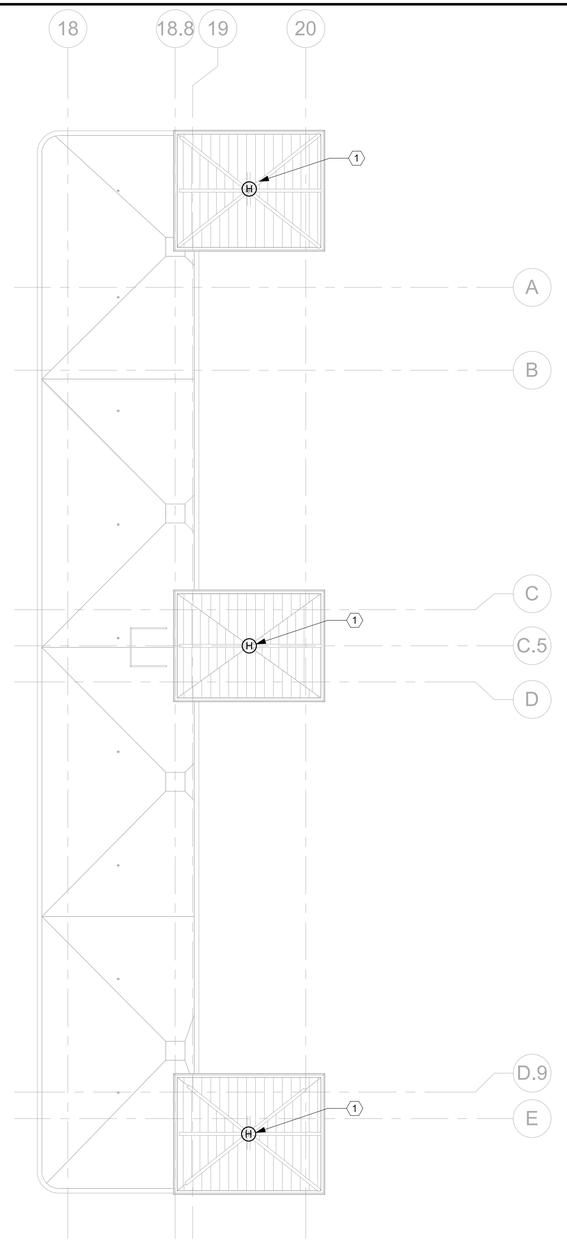
IFB NO: IFB-020-019
DRAWING NO: E-204
SCALE: 1/8" = 1'-0"
SHEET NO: 146 OF 202



ELECTRICAL BRIDGE AREA

1/8" = 1'-0"

0 4' 8' 16'



ELECTRICAL ROOF AREA

1/8" = 1'-0"

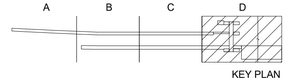
0 4' 8' 16'

GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS AND SYMBOLS, SEE E-001.
2. ALL CONDUITS ON THE BRIDGE SHALL BE INSTALLED CONCEALED IN THE CEILING OF THE BRIDGE.

SHEET KEYNOTES

1. MOUNT HEAT DETECTOR AT THE TOP OF THE SHAFT.
2. MECHANICAL EQUIPMENT MOUNTED ON ROOF OF ELEVATOR ROOM AND INSIDE ELEVATOR ROOM. SEE MECHANICAL DRAWINGS.
3. PROVIDE 30A/2P NON FUSED DISCONNECT SWITCH, NEMA 3R, 250 VOLTS.
4. PROVIDE 1" DATA CONDUIT WITH (1) CAT-6e WIRE BACK TO COMMS ROOM. TERMINATE WIRE AT BOTH ENDS. COORDINATE TERMINATION LOCATIONS IN THE SERVER ROOM WITH VRE'S CONSTRUCTION MANAGER.
5. PROVIDE 3/4" CONDUIT AND SPEAKER WIRE BACK TO SERVER ROOM. TERMINATE SPEAKER WIRES AT BOTH ENDS FOR A FULLY FUNCTIONAL SYSTEM. COORDINATE TERMINATION LOCATIONS IN THE SERVER ROOM WITH VRE'S CONSTRUCTION MANAGER.
6. TRANSITION CONDUITS FROM THE BRIDGE DOWN TO UNDERGROUND AT THE LOCATIONS INDICATED. SEE DRAWING E-204 FOR CONTINUATION TO THE EXISTING BUILDING.



KEY PLAN

DRAFT IFB PACKAGE
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: J. HOPKINS
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CHECKED BY: R. HALLMAN
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RANDALL J. HALLMAN
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6-10-2020

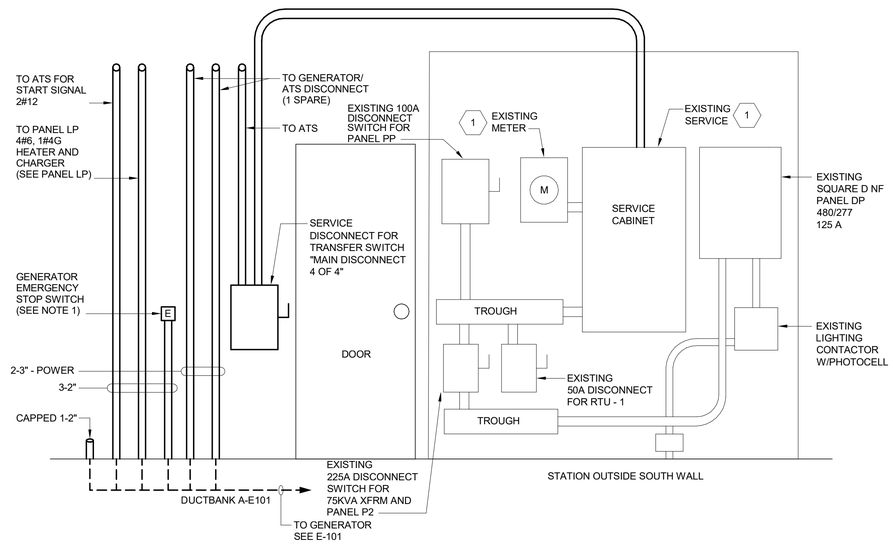
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QUANTICO STATION

BRIDGE LEVEL & ROOF LEVEL PLAN - ELECTRICAL

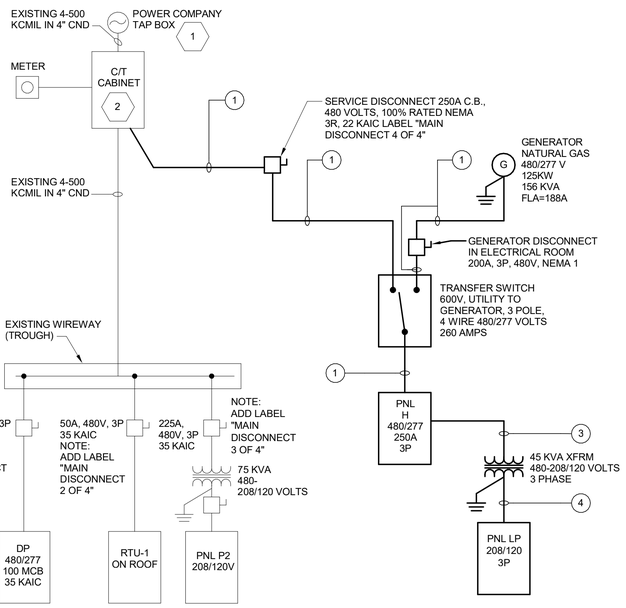
IFB NO: IFB-020-019
DRAWING NO: E-205
SCALE: 1/8" = 1'-0"
SHEET NO: 147 OF 202



NOTE 1: PROVIDE 2#10, 1#10G FROM SWITCH TO GENERATOR AND CONNECT.

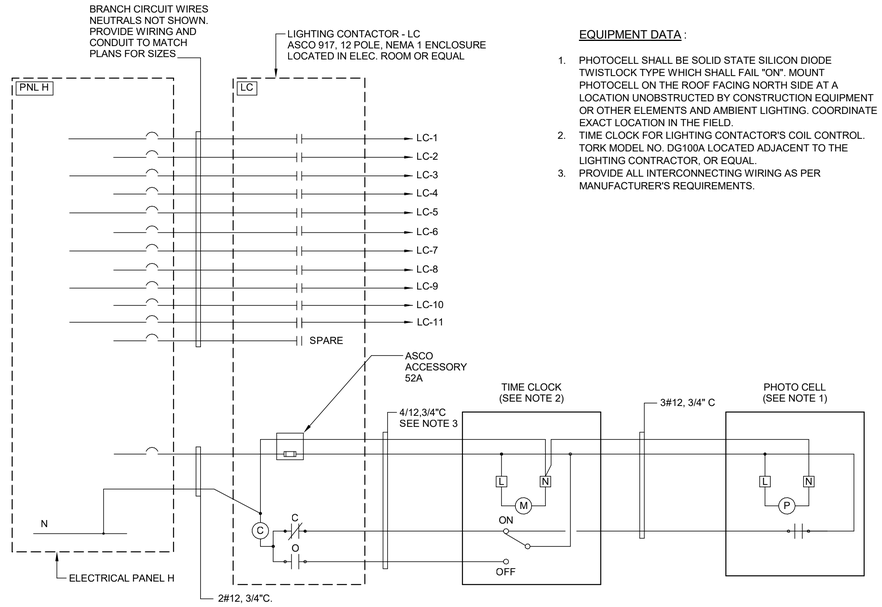
EXISTING AND PROPOSED ELECTRICAL SERVICE ELEVATION

NOT TO SCALE



ONE-LINE DIAGRAM

NOT TO SCALE



LIGHTING CONTROL DIAGRAM

NOT TO SCALE

EQUIPMENT DATA :

1. PHOTOCELL SHALL BE SOLID STATE SILICON DIODE TWISTLOCK TYPE WHICH SHALL FAIL "ON". MOUNT PHOTOCELL ON THE ROOF FACING NORTH SIDE AT A LOCATION UNOBSTRUCTED BY CONSTRUCTION EQUIPMENT OR OTHER ELEMENTS AND AMBIENT LIGHTING. COORDINATE EXACT LOCATION IN THE FIELD.
2. TIME CLOCK FOR LIGHTING CONTACTOR'S COIL CONTROL. TORK MODEL NO. DG100A LOCATED ADJACENT TO THE LIGHTING CONTRACTOR, OR EQUAL.
3. PROVIDE ALL INTERCONNECTING WIRING AS PER MANUFACTURER'S REQUIREMENTS.

GENERAL NOTES

1. FOR GENERAL NOTES, ABBREVIATIONS AND SYMBOLS, SEE E-001.

SHEET KEYNOTES

(1) UPGRADE/ REPLACE ELECTRICAL SERVICE TO 400 AMP AT 480V 3 PHASE. PROVIDE 400 AMP CT'S. PROVIDE/ INSTALL METER AND WIRING. AVAILABLE FAULT CURRENT FROM UTILITY COMPANY FOR UPGRADED ELECTRICAL SERVICE IS 7,958A PER 6/6/18 EMAIL FROM KAI STARR OF DOMINION ENERGY.

(2) UPGRADE/ REPLACE CT CABINET TO 400 AMP CAPACITY AND LUGS. TAP CONDUCTORS FOR MAIN DISCONNECT 4 OF 4.

CABLE/CONDUIT SCHEDULE				
CONDUIT		CONDUCTORS (3)	N	G
(1)	3"	250 KCMIL	250 KCMIL	#4
(3)	1"	#4	-	#8
(4)	2"	3/0	3/0	#6

PANEL 'H' SCHEDULE

480/277 V AC, 60 Hz, 3 PH, 4 WIRE, 250 A MAIN CIRCUIT BREAKER, 22 KAIC MINIMUM, 100%, RATED

EQUIPMENT SERVED	CKT BRKR TRIP	CKT BRKR POLE	kVA/PHASE A	B	C	CKT NO	CKT NO	kVA/PHASE A	B	C	CKT BRKR POLE	CKT BRKR TRIP	EQUIPMENT SERVED
ELEVATOR NO 1	125	3	18			01	02	1.6			1	20	LC-1 CENTER PLATF. LTG.
				18			04		2		1	20	LC-2 CENTER PLATF. LTG.
					18		06			2	1	20	LC-3 CENTER PLATF. LTG.
ELEVATOR NO 2	125	3	18			07	08	1.4			1	20	LC-4 SIDE PLATFORM LTG.
				18			10		1.2		1	20	LC-5 SIDE PLATFORM LTG.
					18		12			1.6	1	20	LC-6 CENTER CANOPY LTG.
ELEVATOR NO 2	125	3	18			13	14	.9			1	20	LC-7 CENTER CANOPY LTG.
				18			16		.3		1	20	LC-8 SIDE CANOPY LTG.
					18		18			.9	1	20	LC-9 SIDE CANOPY LTG.
						19	20	.1			1	20	LC-10 BRIDGE, PLATF. 3
						21	22		.1		1	20	LC-11 BRIDGE, PLATF. 3
						23	24				1	20	SPARE
						25	26	.1			1	20	ELEV. EQ LTG.
						27	28		.1		1	20	ELEV. EQ LTG.
						29	30			.1	1	20	ELEV. EQ LTG.
						31	32				1	20	SPARE
						33	34				1	20	SPARE
						35	36			.1	1	20	LC
						37	38	5.8					
						39			6.9		3	70	45 KVA TRANSFORMER
						41				6.1			
			54.0	54.0	54.0			9.9	10.6	10.8			
			TOTAL CONNECTED kVA/PHASE					63.9	64.6	64.8			
			TOTAL CONNECTED kVA					193.3					

PANEL 'LP' SCHEDULE

208/120 V AC, 60 Hz, 3 PH, 4 WIRE, 175 A MAIN CIRCUIT BREAKER, 10 KAIC MINIMUM

EQUIPMENT SERVED	CKT BRKR TRIP	CKT BRKR POLE	kVA/PHASE A	B	C	CKT NO	CKT NO	kVA/PHASE A	B	C	CKT BRKR POLE	CKT BRKR TRIP	EQUIPMENT SERVED
ELEVATOR 1 LTGS AND ALARM	15*	1	.1			01	02	2.6			2	40	HP-1
ELEVATOR 2 LTGS AND ALARM	15*	1		.1		03			2.6				
ELEVATOR 3 LTGS AND ALARM	15*	1			.1	05	06			2.6	2	40	HP-2
ELEVATOR 1 RCPTS PUMP	20	1	.2			07		2.6					
ELEVATOR 1 RCPTS PIT	20	1		.2		09	10		2.6		2	40	HP-3
ELEVATOR 1 SUMP CP	20	1			.2	11				2.6			
ELEVATOR 2 RCPTS PUMP	20	1	.2			13	14	.5			1	20	TVM
ELEVATOR 2 RCPTS PIT	20	1		.2		15	16		.5		1	20	TVM
ELEVATOR 2 SUMP CP	20	1			.2	17	18				1	20	VMS CKT 1
ELEVATOR 3 RCPTS PUMP	20	1	.2			19	20				1	20	VMS CKT 2
ELEVATOR 3 RCPTS PIT	20	1		.2		21	22				1	20	VMS CKT 1
ELEVATOR 3 SUMP CP	20	1			.2	23	24				1	20	VMS CKT 2
SPARE	20	1				25	26	.4			1	20	F-1 (FAN)
SPARE	20	1				27	28		.4		1	20	F-2 (FAN)
SPARE	20	1				29	30			.4	1	20	F-3 (FAN)
VMS CKT 1	20	1	.5			31	32				1	20	SPARE
VMS CKT 2	20	1		.5		33	34		.5		1	20	VMS CKT 1
VMS CKT 1	20	1			.5	35	36			.5	1	20	VMS CKT 2
VMS CKT 2	20	1	.5			37	38	.5			1	20	VMS CKT 1
GENERATOR BLOCK HEATER	20	1		1.0		39	40		.5		1	20	VMS CKT 2
GENERATOR BATTERY CHARGER	20	1			2.0	41	42			.2	1	20	FIRE ALARM CONTROL PANEL (NOTE 1)
SPARE	20	1				43	44				1	20	SPARE
SPARE	20	1				45	46				1	20	SPARE
SPARE	20	1				47	48				1	20	SPARE
SPARE	20	1				49	50				1	20	SPARE
SPARE	20	1				51	52				1	20	SPARE
SPARE	20	1				53	54				1	20	SPARE
* GFCI CIRCUIT BREAKER			1.7	2.2	3.2			6.6	7.1	6.3			NOTE 1: PROVIDE CIRCUIT BREAKER LOCK
			TOTAL CONNECTED kVA/PHASE					8.3	9.3	9.5			
			TOTAL CONNECTED kVA					27.1					

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NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: J. HOPKINS
DRAWN BY C. HENDRICKS
CHECKED BY: R. HALLMAN
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RANDALL I. HALLMAN
Lic. No. 44751
PROFESSIONAL ENGINEER
6-10-2020

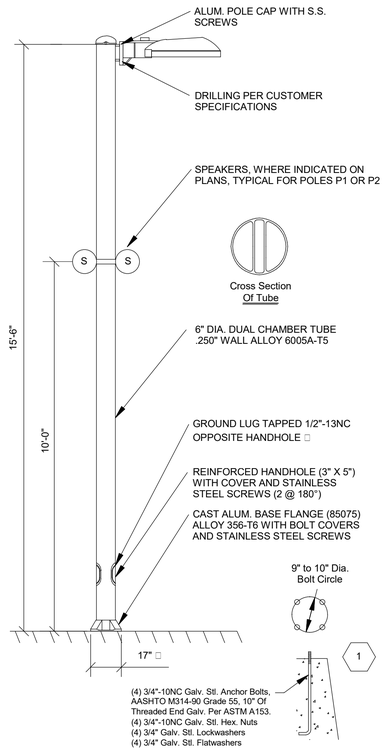
VRE

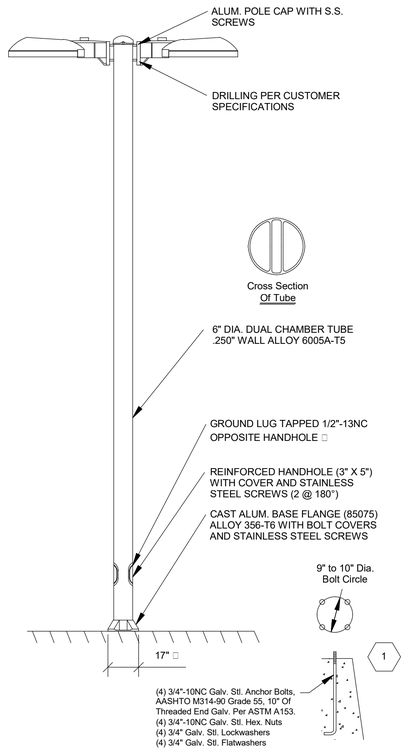
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2701 Prosperity Ave, Suite 305
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QUANTICO STATION

ONE LINE DIAGRAMS & RISER DIAGRAMS

IFB NO: IFB-020-019
DRAWING NO: E-601
SCALE: NTS
SHEET NO: 148 OF 202





PLATFORM FIXTURE - TYPE P1

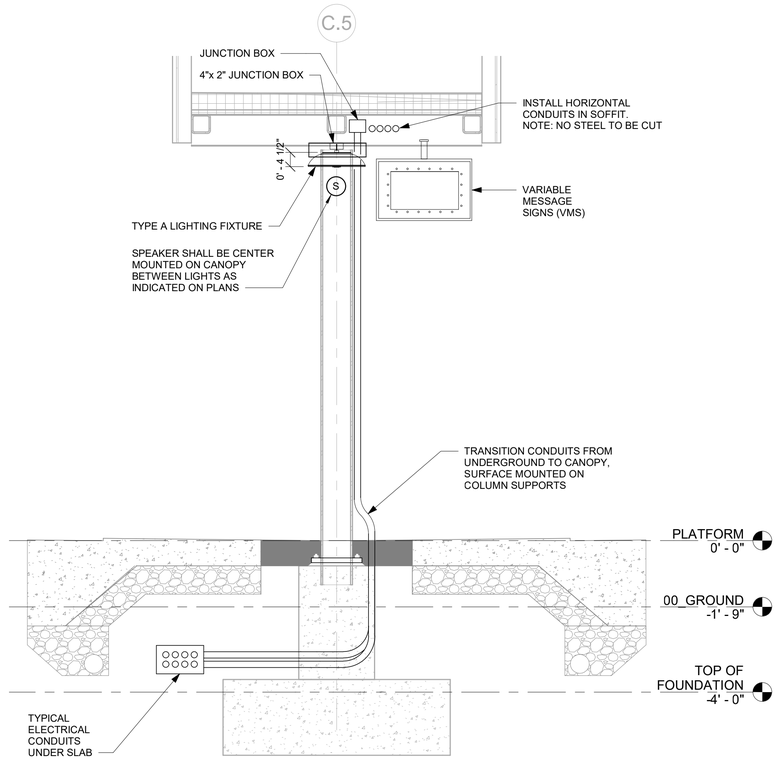
NOT TO SCALE

NOTE :
1. FOR FOUNDATION DETAILS, SEE STRUCTURAL DRAWINGS.
2. POLE MANUFACTURER TO SUPPLY ANCHOR BOLTS.

PLATFORM FIXTURE - TYPE P2

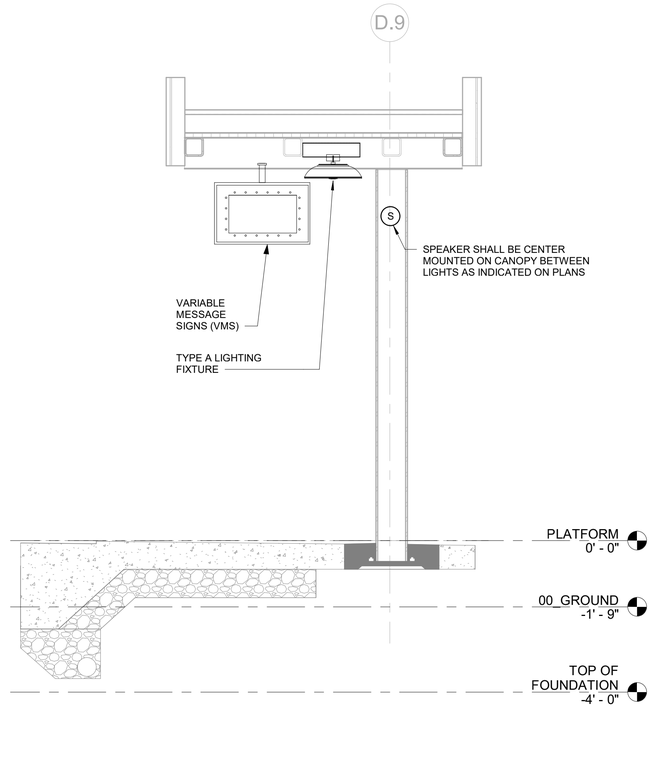
NOT TO SCALE

NOTE:
1. FOR FOUNDATION DETAILS, SEE STRUCTURAL DRAWINGS.
2. POLE MANUFACTURER TO SUPPLY ANCHOR BOLTS.



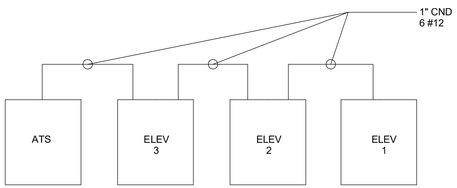
CENTER CANOPY DETAIL

1/2" = 1'-0"



SIDE CANOPY DETAIL

1/2" = 1'-0"



ATS SIGNAL :

1. ON GENERATOR POWER
2. SIGNAL BEFORE TRANSFER

ELEVATOR CONTROLS :

1. GROUP CONTROL - WHEN ON GENERATOR, ONLY 1 ELEVATOR RUNS AT A TIME
2. WHEN ATS RETURNS TO NORMAL POWER, ELEVATORS SHALL RECEIVE A "PARK" SIGNAL FROM "SIGNAL BEFORE TRANSFER" CONTACTS.
3. PROVIDE CONDUIT AND WIRING SHOWN AND CONNECT TO TERMINALS ON ELEVATOR CONTROLLER SHOP DRAWINGS.

ELEVATOR CONTROL DIAGRAM

NOT TO SCALE

LIGHTING FIXTURE SCHEDULE

LAMP TYPES - IN, INCANDESCENT;
LED, LIGHT EMITTING DIODE
ENVIRONMENT - IN, INDOOR; DL, DAMP LOCATION; WL, WET LOCATION;
MOUNTING - R, RECESSED; S, SURFACE; P, PENDANT; W, WALL; PL, POLE;

TYPE	MANUFACTURER	CATALOG NO.	DESCRIPTION	LAMPS NO.	LAMPS WATTS	LAMPS TYPE	ENVIR.	MOUNTING TYPE	MOUNTING HEIGHT	VOLTS	REMARKS
A	Mc GRAW-EDISON	TT-C4-LED-EI-CQ-DPM-BZ-SG	SURFACE MOUNTED CIRCULAR LED, BRONZE CONCENTRATED DISTRIBUTION, 4000K, 7500 LUMENS	1	58	LED	WL	S	10'-0"	277	
B	LITHONIA	VAP 6000LM FST MD MVOLT 4000K 80 CRI DL	VAPOR TIGHT STRIP LIGHT - 4', WET LOCATION, ROUGH LOCATION, 4000K	1	62	LED	DL	S	CEILING	277	WITH DIFFUSER
C	LITHONIA	CSXW LED 30C 1000MA 40K T3M MVOLT DDBXD	SECURITY LIGHT	1	104	LED	WL	S	8'-0"	277	
P1	KING LUMINAIRE HAPCO POLES	K902-P4FL-III-150(SSL) 8084 ARM-SR BLACK POLE-SKDG111517A -4K BLACK	CENTURION SERIES LED AREA LUMINAIRE TYPE III DISTRIBUTION, DUAL CHAMBER POLE, 6" DIA, 4000K	1	150	LED	WL	PL	15'-6"	277	SEE DETAIL, THIS DRAWING
P2	KING LUMINAIRE HAPCO POLES	K902-P4FL-III-150(SSL) 8084 ARM-SR BLACK POLE-SKDG111517A -4K BLACK	DUAL - CENTURION SERIES LED AREA LUMINAIRE TYPE III DISTRIBUTION, 15'-6" DUAL CHAMBER POLE, 6" DIA, 4000K	2	150	LED	WL	PL	15'-6"	277	SEE DETAIL, THIS DRAWING

NOTES:
1. MOUNTING HEIGHT INDICATED ON LIGHTING PLANS ARE FROM ABOVE FINISHED GRADE (AFG) TO BOTTOM OF LIGHTING FIXTURE.

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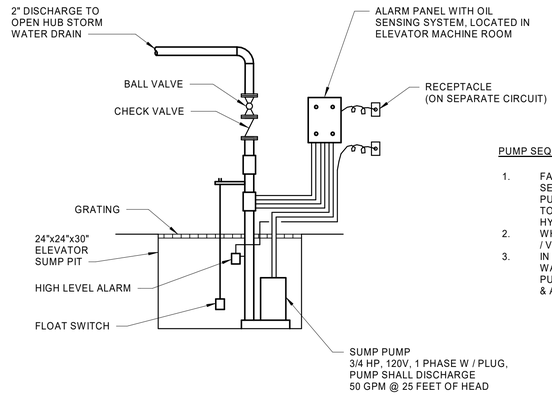
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QUANTICO STATION

SCHEDULES & DIAGRAMS

IFB NO: IFB-020-019
DRAWING NO: E-602
SCALE: AS INDICATED
SHEET NO: 149 OF 202



PUMP SEQUENCE:

1. FACTORY CALIBRATED OIL SMART SWITCH SENSES WATER LEVEL TO START & STOP PUMP. SWITCH IS DIELECTRIC SENSITIVE TO AIR, WATER, OIL AND/OR HYDROCARBONS.
2. WHEN HIGH WATER IS SENSED AN AUDIBLE / VISUAL ALARM WILL ACTIVATE.
3. IN THE EVENT THAT OIL IS SENSED IN THE WATER OR SENSED IN VAPOR FORM, THE PUMP WILL AUTOMATICALLY BE DISABLED & ACTIVATE AN AUDIBLE / VISUAL ALARM.

1 / P-104 ELEVATOR SUMP PUMP DETAIL

NOT TO SCALE

GENERAL PLUMBING NOTES

1. PROVIDE SHUTOFF VALVES AT ALL ITEMS OF EQUIPMENT. PROVIDE MAIN AND BRANCH SHUTOFF VALVES AS INDICATED ON THE DRAWINGS AND AS REQUIRED BY THE INTERNATIONAL PLUMBING CODE.
2. PROVIDE DRAIN BIBBS AT ALL LOW POINTS OR TRAPPED SECTIONS OF WATER PIPING.
3. VERIFY ACCURACY OF ALL INVERTS AND SET DRAINAGE PIPING TO THE INDICATED INVERTS. WHEN INVERT ELEVATIONS ARE NOT INDICATED HORIZONTAL DRAINAGE PIPING 3" AND LARGER SHALL PITCH 1/8" PER FOOT MINIMUM AND PIPING SMALLER THAN 3" SHALL PITCH 1/4" PER FOOT MINIMUM.
4. PROVIDE NON-CONDUCTING DIELECTRIC CONNECTIONS WHEREVER JOINING DISSIMILAR PIPE METALS.
5. SEAL ALL WALLS AND FLOORS PENETRATED BY PIPING AS SPECIFIED.
6. ALL HOSE BIBBS SHALL BE A MINIMUM OF 1'-6" ABOVE FINISHED FLOOR, FINAL EXTERIOR GRADES OR PAVEMENTS. PROVIDE AN ACCESSIBLE ISOLATION VALVE NEAR EACH HOSE BIBB.
7. CONNECT PLUMBING TO EQUIPMENT ITEMS IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
8. ALL CW PIPING TO BE DRAINED FOR WINTERIZATION PRIOR TO FREEZING TEMPERATURES.

LEGEND

——— – ———	COLD WATER (CW)
GH	GROUND HYDRANT
	VALVE BOX
	BALL VALVE
	NEW WORK TAG
	CONNECT TO EXISTING

TECHNICAL TERMS

CO	CLEANOUT
EMR	ELEVATOR MACHINE ROOM
HB	HOSE BIBB
RD	ROOF DRAIN
RD-S	ROOF DRAIN - SECONDARY
RWC	RAINWATER CONDUCTOR
RWC-S	RAINWATER CONDUCTOR - SECONDARY

INVITATION FOR BID
NOT FOR CONSTRUCTION

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	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: SB
DRAWN BY SB
CHECKED BY: KB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
JON HELHOWSKI
Lic. No. 0402016185
PROFESSIONAL ENGINEER
6-10-2020

STV Incorporated
2701 Prosperity Ave, Suite 305
Fairfax, VA 22031

QUANTICO STATION

GENERAL NOTES, DETAIL & LEGEND

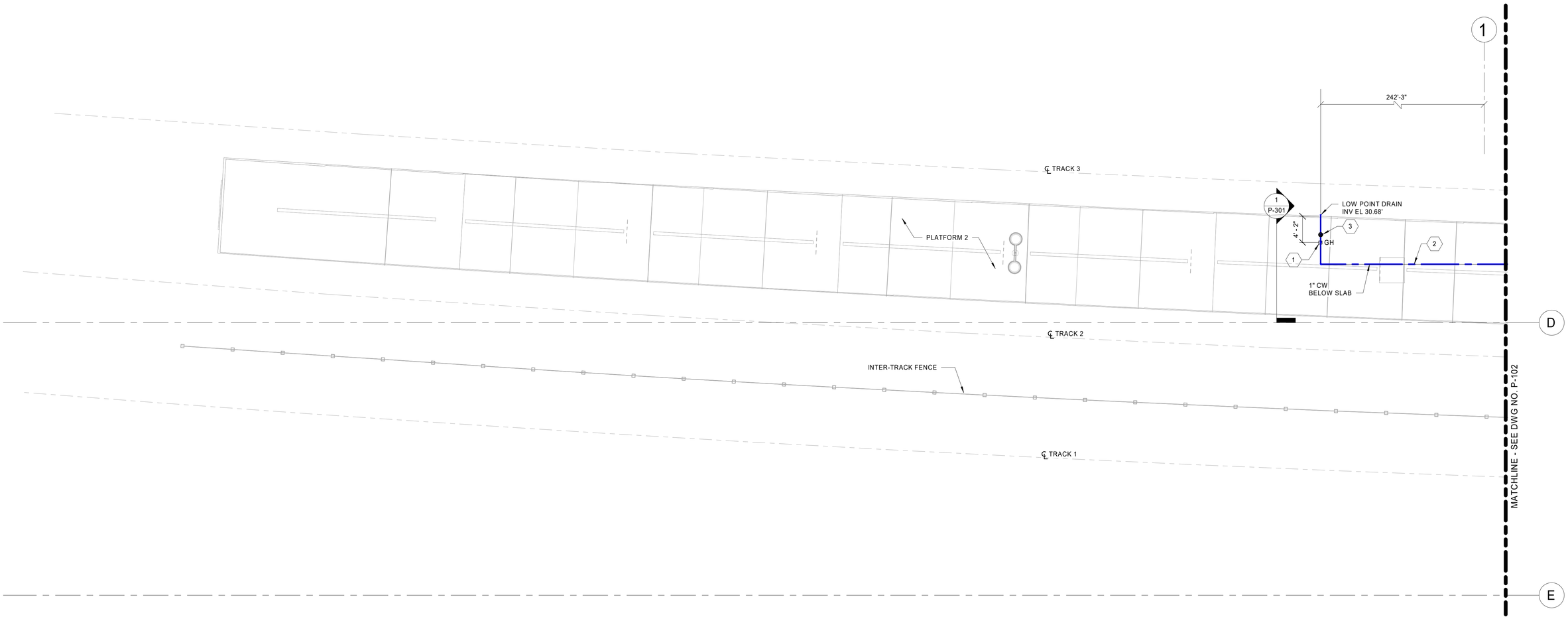
IFB NO: IFB-020-019
DRAWING NO: P-001
SCALE: AS NOTED
SHEET NO: 150 OF 202

GENERAL SHEET NOTES

1. FOR PLUMBING GENERAL NOTES, LEGEND AND DETAIL SEE DWG NO. P-001.

SHEET KEYNOTES

1. PROVIDE AND INSTALL GROUND HYDRANT (GH), FLUSH WITH CONCRETE SLAB.
2. SLOPE PIPE TO LOW POINT DRAIN.
3. SHUT-OFF VALVE IN BOX AT LOW POINT DRAIN FOR WINTERIZATION.



1 P-101 PLATFORM PLAN PART A

1/8" = 1'-0"

0 4' 8' 16'



KEY PLAN

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: SB
DRAWN BY SB
CHECKED BY: KB
DATE: 06/10/2020

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PROFESSIONAL ENGINEER
6-10-2020

VRE

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QUANTICO STATION

PLATFORM LEVEL PLAN PART A

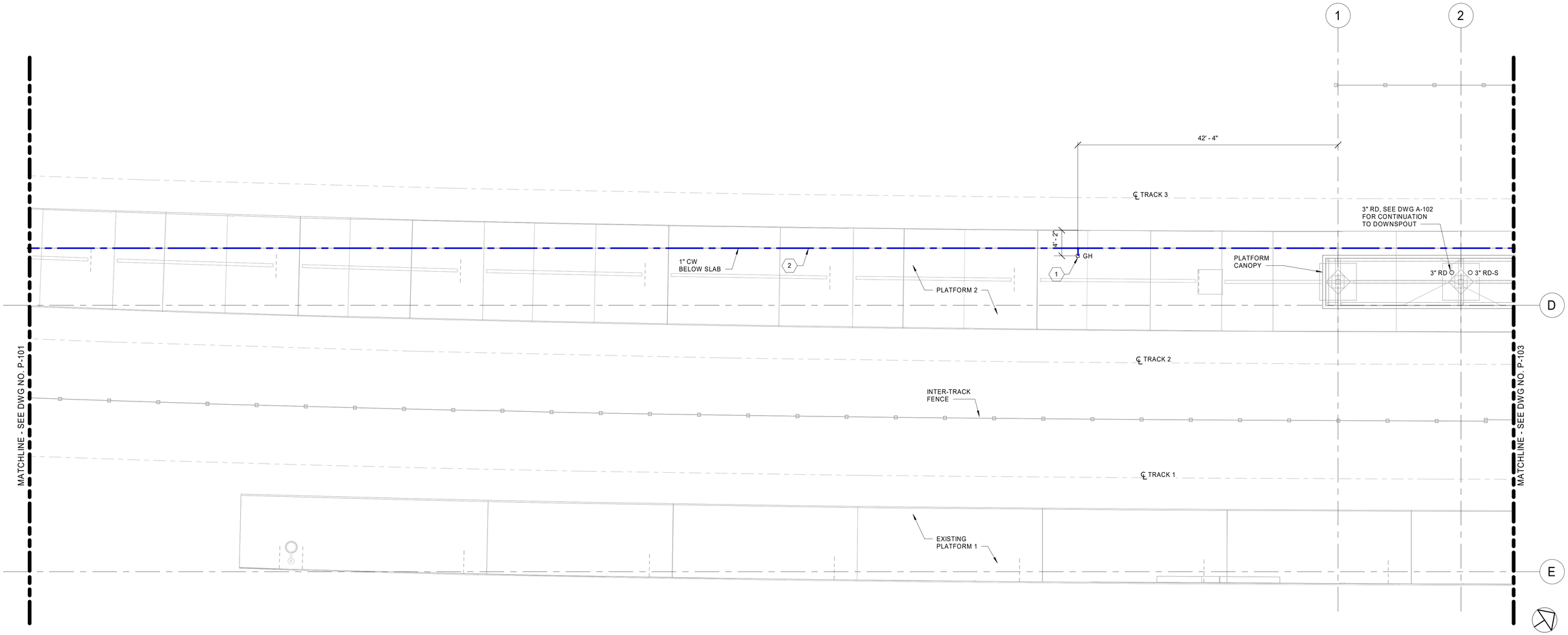
IFB NO: IFB-020-019
DRAWING NO: P-101
SCALE: 1/8" = 1'-0"
SHEET NO: 151 OF 202

GENERAL SHEET NOTES

1. FOR PLUMBING GENERAL NOTES, LEGEND AND DETAIL SEE DWG NO. P-001.

SHEET KEYNOTES

1. PROVIDE AND INSTALL GROUND HYDRANT (GH), FLUSH WITH CONCRETE SLAB.
2. SLOPE PIPE TO LOW POINT DRAIN.



1 P-102 PLATFORM PLAN PART B

1/8" = 1'-0"

0 4' 8' 16'



KEY PLAN

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

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DRAWN BY SB
CHECKED BY: KB
DATE: 06/10/2020

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JON HELHOWSKI
Lic. No. 0402016185
PROFESSIONAL ENGINEER
6-10-2020

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Fairfax, VA 22031

QUANTICO STATION

PLATFORM LEVEL PLAN PART B

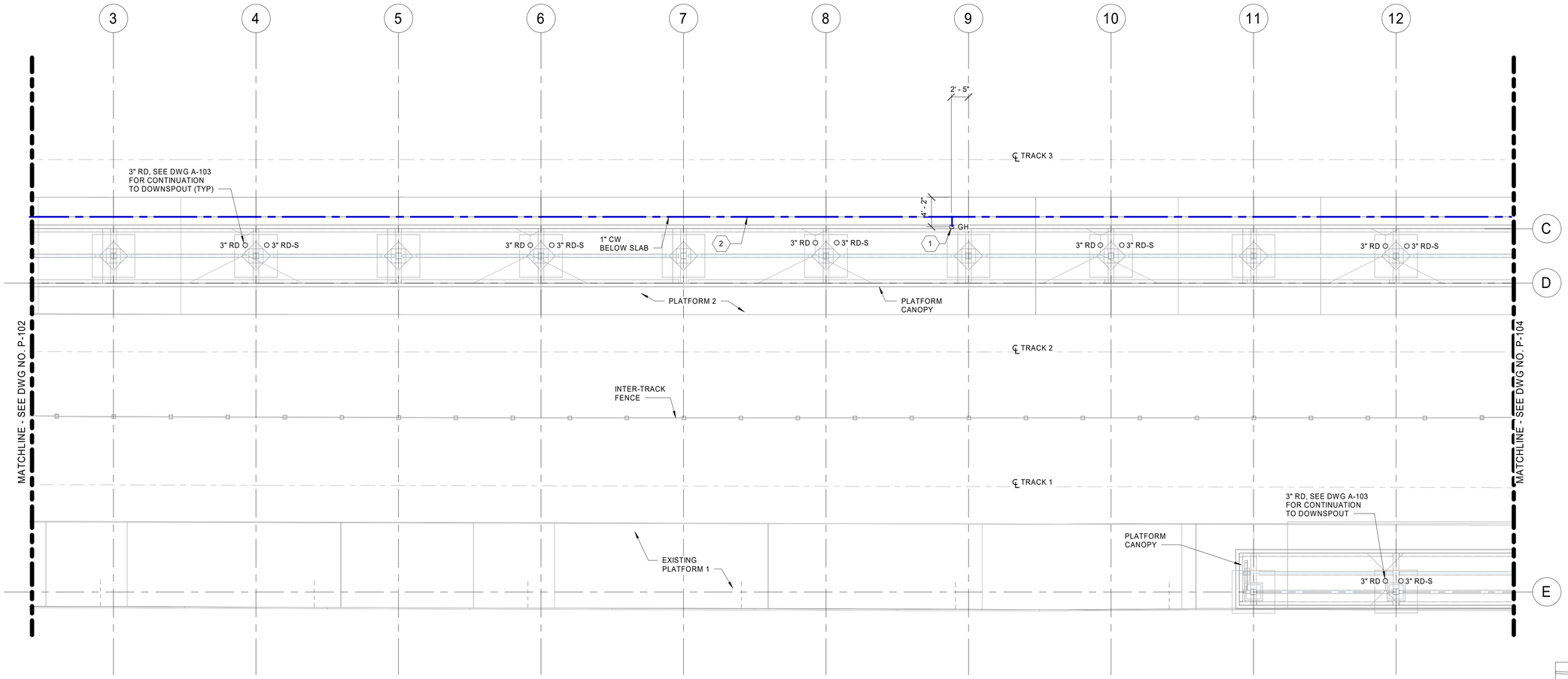
IFB NO: IFB-020-019
DRAWING NO: P-102
SCALE: 1/8" = 1'-0"
SHEET NO: 152 OF 202

GENERAL SHEET NOTES

1. FOR PLUMBING GENERAL NOTES, LEGEND AND DETAIL SEE DWG NO. P-001.

SHEET KEYNOTES

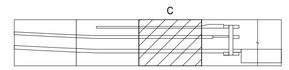
1. PROVIDE AND INSTALL GROUND HYDRANT (GH), FLUSH WITH CONCRETE SLAB.
2. SLOPE PIPE TO LOW POINT DRAIN.



1 P-103 PLATFORM PLAN PART C

1/8" = 1'-0"

0 4' 8' 16'



KEY PLAN

INVITATION FOR BID
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

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DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
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Lic. No. 0402016185
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6-10-2020

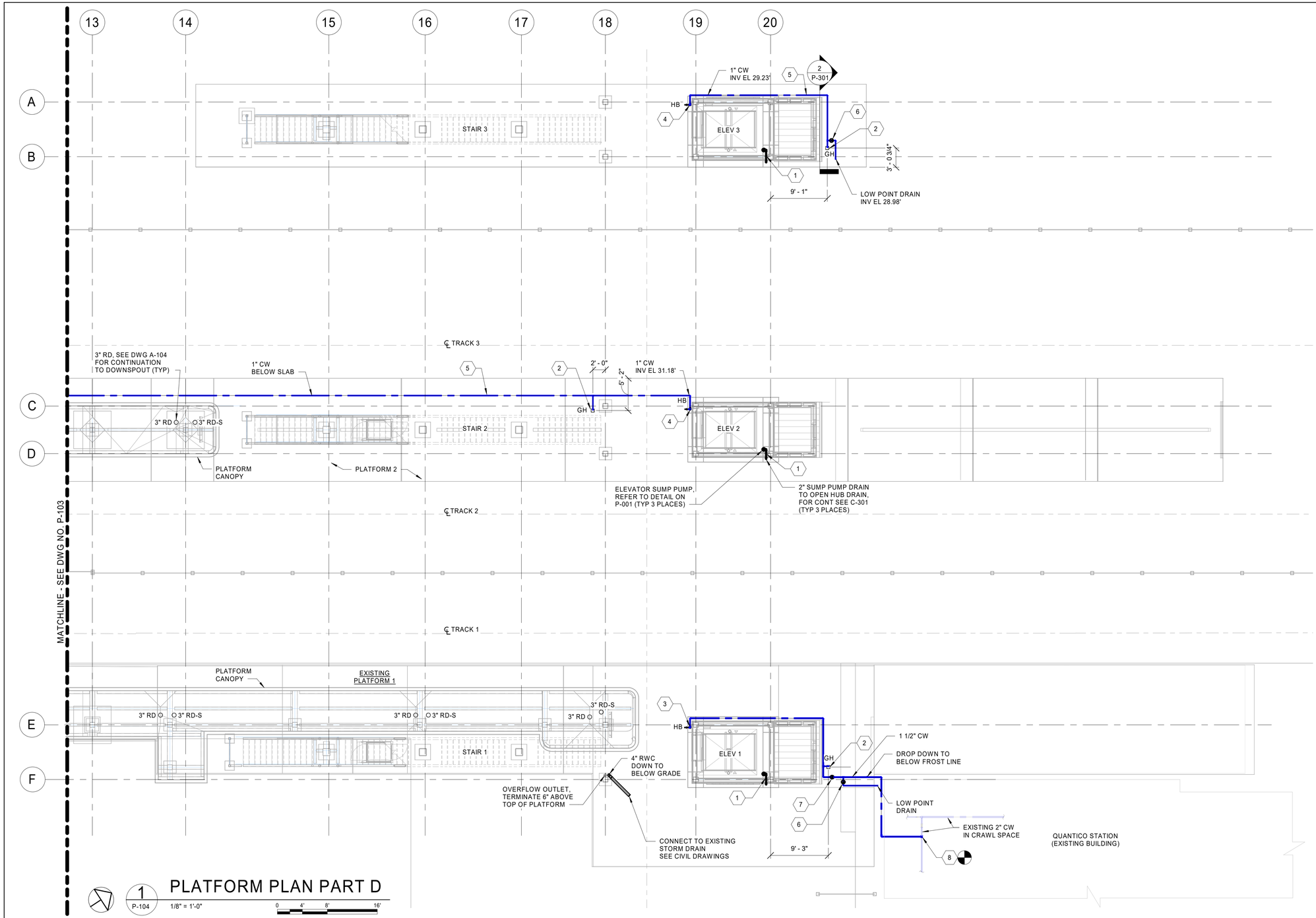
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QUANTICO STATION

PLATFORM LEVEL PLAN PART C

IFB NO: IFB-020-019
DRAWING NO: P-103
SCALE: 1/8" = 1'-0"
SHEET NO: 153 OF 202



GENERAL SHEET NOTES

1. FOR PLUMBING GENERAL NOTES, LEGEND AND DETAIL SEE DWG NO. P-001.

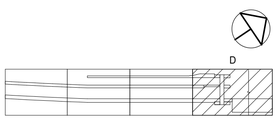
SHEET KEYNOTES

1. RUN 2" SUMP PUMP DISCHARGE PIPING IN ELEVATOR SHAFT.
2. PROVIDE AND INSTALL GROUND HYDRANT (GH), FLUSH WITH CONCRETE SLAB.
3. 1 1/4" CW FROM BELOW SLAB UP TO BRIDGE. PROVIDE HOSE BIBB WITH KEY LOCK AND SHUT-OFF VALVE IN RISER AT 1'-6" ABOVE FINISHED GRADE.
4. 1" CW DOWN FROM BRIDGE TO BELOW SLAB. PROVIDE HOSE BIBB WITH KEY LOCK AND SHUT-OFF VALVE IN RISER AT 1'-6" ABOVE FINISHED GRADE.
5. SLOPE PIPE TO LOW POINT DRAIN.
6. SHUT-OFF VALVE IN BOX AT LOW POINT DRAIN FOR WINTERIZATION.
7. SHUT-OFF VALVE IN BOX.
8. EXTEND 1 1/2" CW INTO EXISTING QUANTICO STATION BUILDING. ROUTE IN CRAWL SPACE AND CONNECT TO EXISTING 2" CW.

1 P-104 PLATFORM PLAN PART D

1/8" = 1'-0"

0 4' 8' 16'



KEY PLAN

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NOT FOR CONSTRUCTION

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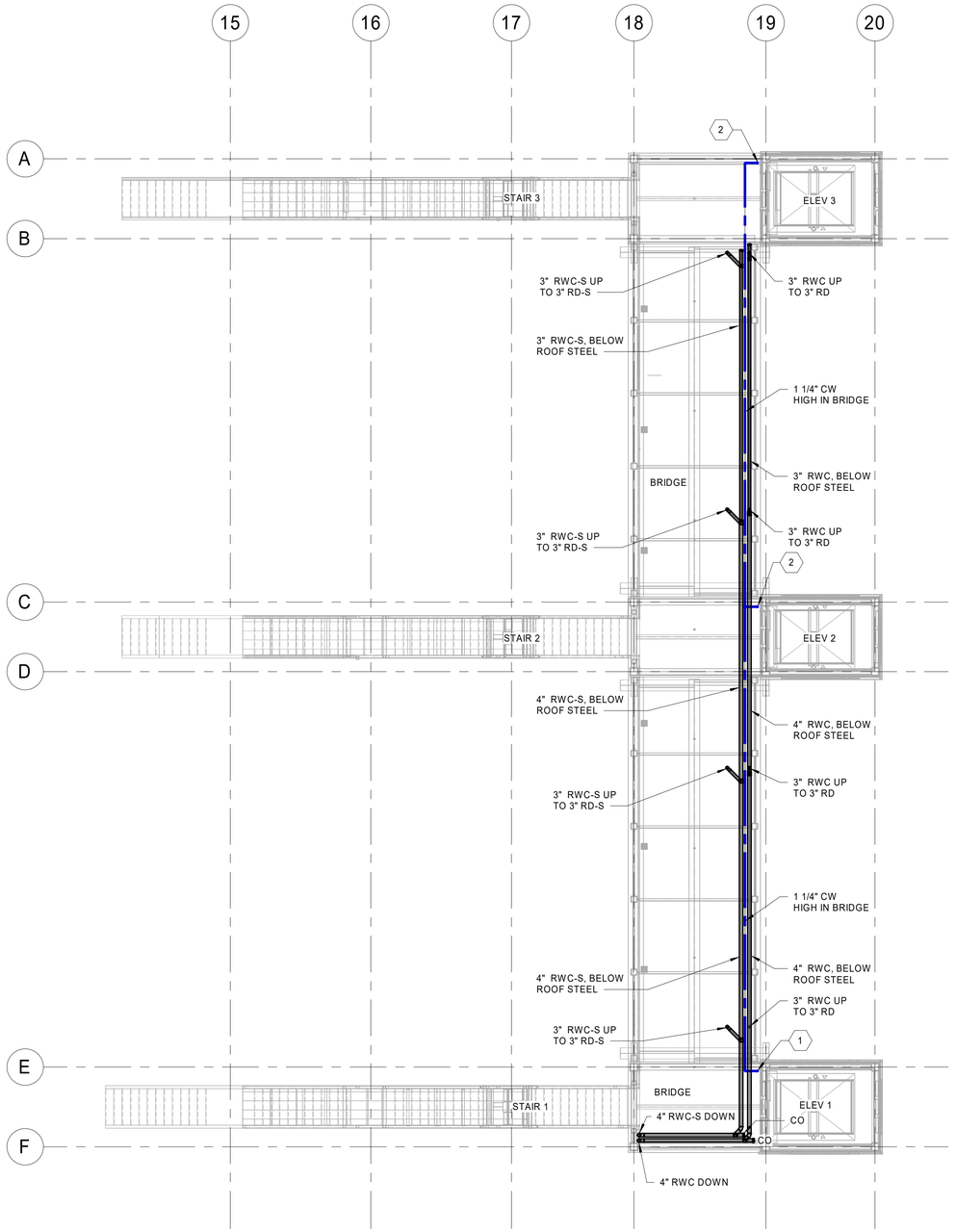
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QUANTICO STATION

PLATFORM LEVEL PLAN PART D

IFB NO: IFB-020-019
DRAWING NO: P-104
SCALE: 1/8" = 1'-0"
SHEET NO: 154 OF 202



1 P-105 BRIDGE LEVEL PLAN

1/8" = 1'-0"

0 4' 8' 16'

GENERAL SHEET NOTES

1. FOR PLUMBING GENERAL NOTES, LEGEND AND DETAIL SEE DWG NO. P-001.

SHEET KEYNOTES

1. 1 1/4" CW UP TO HIGH IN BRIDGE.
2. 1" CW DOWN TO PLATFORM.



KEY PLAN

INVITATION FOR BID
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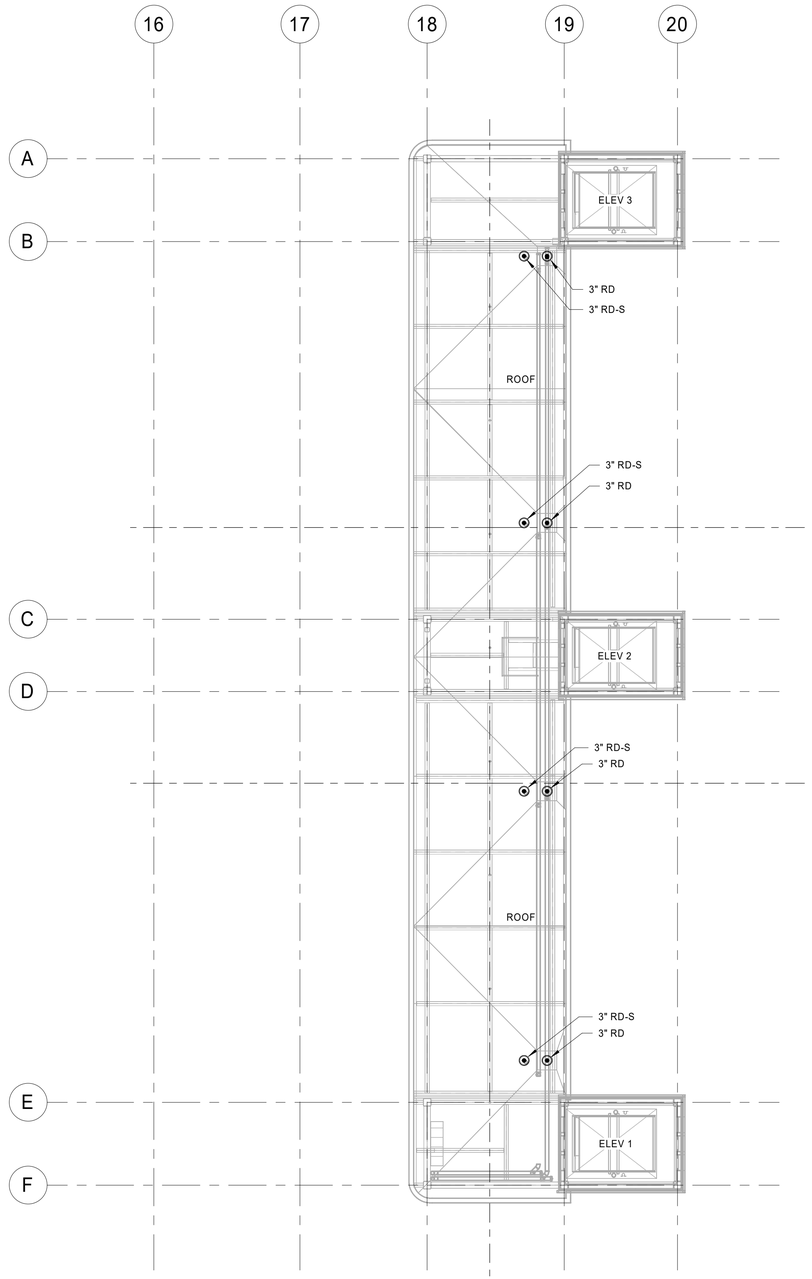
QUANTICO STATION

BRIDGE LEVEL PLAN

IFB NO: IFB-020-019
DRAWING NO: P-105
SCALE: 1/8" = 1'-0"
SHEET NO: OF

GENERAL SHEET NOTES

1. FOR PLUMBING GENERAL NOTES AND DETAIL SEE DWG NO. P-001.



1 P-106 ROOF PLAN BRIDGE

1/8" = 1'-0" 0 4' 8' 16'



KEY PLAN

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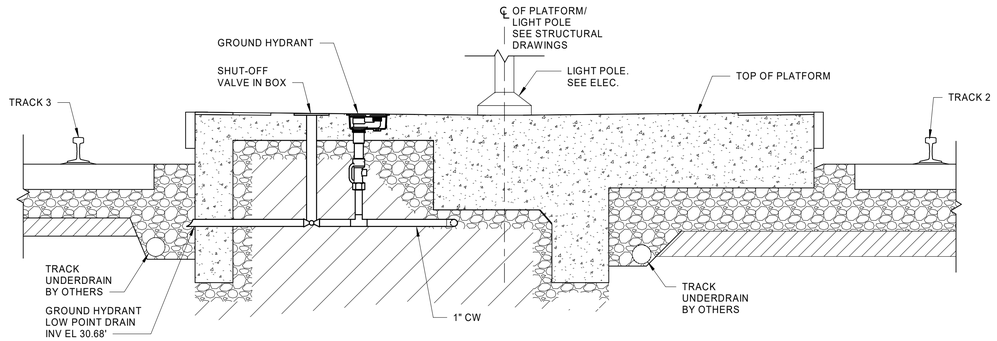
QUANTICO STATION

ROOF PLAN BRIDGE

IFB NO: IFB-020-019
DRAWING NO: P-106
SCALE: 1/8" = 1'-0"
SHEET NO: 156 OF 202

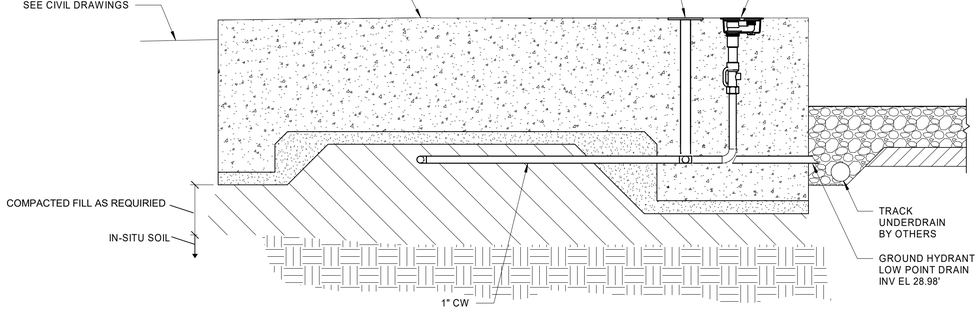
GENERAL SHEET NOTES

1. FOR PLUMBING GENERAL NOTES, LEGEND AND DETAIL SEE DWG NO. P-001.



1 P-101 SECTION

1/2" = 1'-0"



2 P-104 SECTION

1/2" = 1'-0"

INVITATION FOR BID
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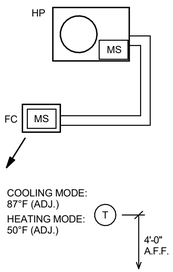
SECTIONS

IFB NO: IFB-020-019

DRAWING NO: P-301

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

SHEET NO: 157 OF 202

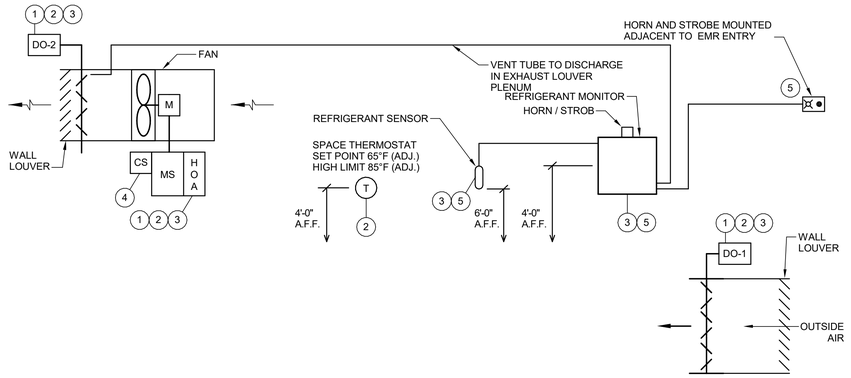


1 M-001 (FC-1,2,3 / HP-1,2,3) CONTROL DIAGRAM

NO SCALE

SEQUENCE OF OPERATION:

1. USING MANUFACTURER'S SEQUENCES:
   COOLING MODE: SPACE THERMOSTAT STARTS FAN COIL & AND HEAT PUMP UNIT WHEN SPACE TEMPERATURE RISES ABOVE SETPOINT (87°F ADJ.). REVERSE SHALL OCCUR WHEN SPACE TEMPERATURE DROPS BELOW SETPOINT.
2. USING MANUFACTURER'S SEQUENCES:
   HEATING MODE: SPACE THERMOSTAT STARTS FAN COIL & AND HEAT PUMP UNIT WHEN SPACE TEMPERATURE DROPS BELOW SETPOINT (50°F ADJ.). REVERSE SHALL OCCUR WHEN SPACE TEMPERATURE RISES ABOVE SETPOINT.



2 M-001 MECHANICAL ROOM VENTILATION - REFRIGERANT MONITOR

NO SCALE

SEQUENCE OF OPERATION:

1. WHEN "HAND-OFF-AUTO" SWITCH IS IN HAND POSITION THE FAN RUNS AND THE (INTERLOCKED) AUTOMATIC DAMPERS OPEN. WHEN SWITCH IS IN "AUTO" POSITION THE FAN IS CONTROLLED BY THE THERMOSTAT. WHEN THE SWITCH IS IN THE "OFF" POSITION THE FAN IS SHUT DOWN AND THE AUTOMATIC DAMPERS SHALL CLOSE.
2. SPACE THERMOSTAT STARTS FAN AND OPENS AUTOMATIC DAMPERS WHEN SPACE TEMPERATURE RISES ABOVE 65°F (ADJ.). THE FAN SHALL TURN OFF AND AUTOMATIC DAMPERS SHALL CLOSE WHEN SPACE TEMPERATURE IS ABOVE 85°F (ADJ.) OR BELOW 65°F (ADJ.).
3. REFRIGERANT MONITOR STARTS FAN AND OPENS AUTOMATIC DAMPERS WHEN ABNORMAL CONDITIONS ARE SENSED. ABNORMAL CONDITION WHEN REFRIGERANT IS DETECTED AT 20 PPM.
4. CURRENT SENSOR MONITORS RUNNING CONDITION (ON-OFF).
5. REFRIGERANT MONITOR PROVIDES LOCAL ALARM SIGNAL (HORN AND STROB) WHEN ABNORMAL CONDITIONS ARE SENSED (≥20 PPM).

SHEET LEGEND

MISCELLANEOUS SYMBOLS

SYMBOL	DESCRIPTION
X	SHEET KEY NOTE
	EQUIPMENT SYMBOL (SEE SCHEDULE)
XX	EQUIPMENT DESIGNATION
XX	EQUIPMENT REFERENCE NUMBER
	AUTOMATIC DAMPER

CONTROL DIAGRAM SYMBOLS

SYMBOL	DESCRIPTION
CS	CURRENT SENSOR
DO	DAMPER OPERATOR
ES	END SWITCH
H	HUMIDISTAT
H	HUMIDITY SENSOR
HOA	HAND-OFF-AUTOMATIC SWITCH
MS H O A	MOTOR STARTER WITH HAND-OFF-AUTOMATIC SWITCH
M	MOTOR
MS	MOTOR STARTER
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
R	RELAY
T	THERMOSTAT
T	TEMPERATURE SENSOR
ATC	AUTOMATIC TEMPERATURE CONTROL PANEL
	REFRIGERANT MONITOR WITH HORN/STROBE
	REFRIGERANT SENSOR
	HORN AND STROBE

ABBREVIATIONS

DESIGNATION	DESCRIPTION
EF	EXHAUST FAN
FC	FAN COIL
HP	HEAT PUMP
L	LOUVER
AC/DC	ALTERNATING CURRENT / DIRECT CURRENT
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
dB	DECIBEL
AD	AUTOMATIC DAMPER

DRAFT IFB PACKAGE
NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: J. SICKLER
DRAWN BY J. SICKLER
CHECKED BY: M. LEVENGOOD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
JON HELHOWSKI
Lic. No. 0402016185
PROFESSIONAL ENGINEER
6-10-2020

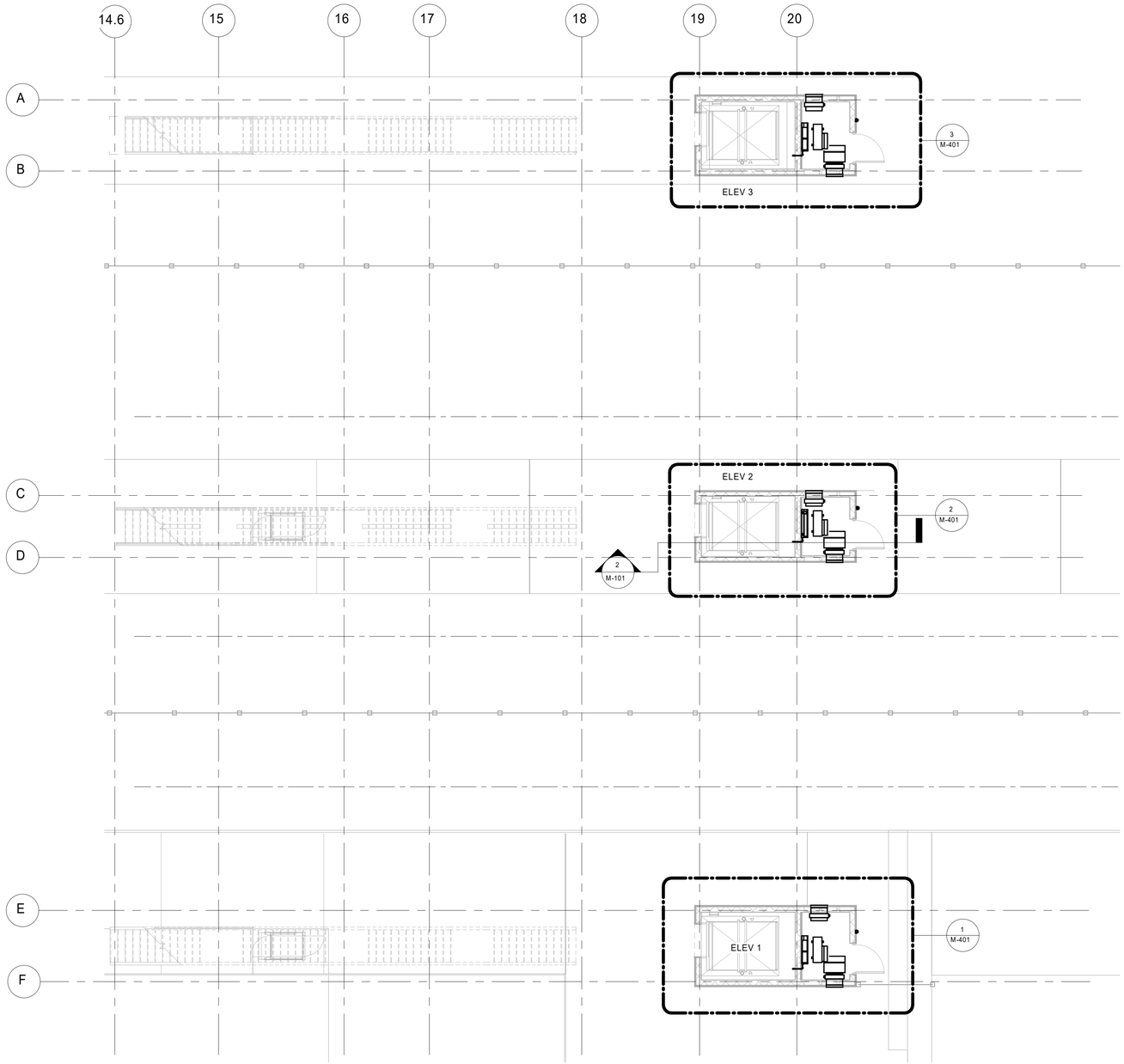
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SYMBOLS, ABBREVIATIONS AND CONTROLS

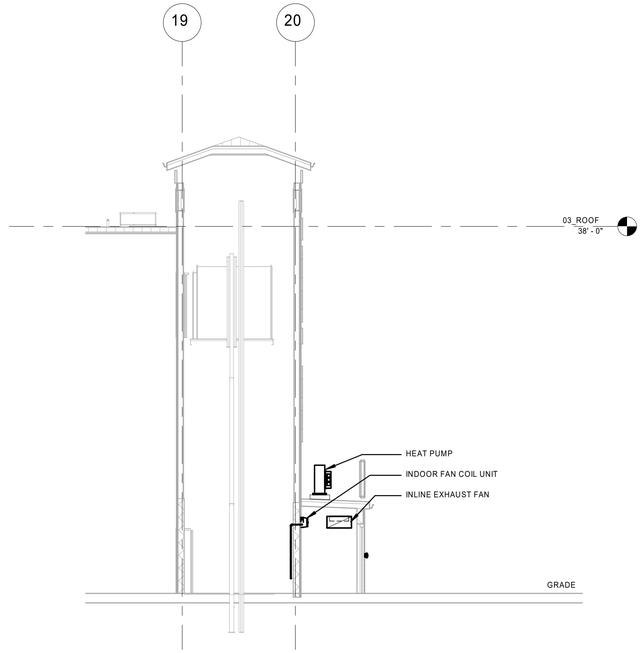
IFB NO: IFB-020-019
DRAWING NO: M-001
SCALE: AS NOTED
SHEET NO: 158 OF 202



1 / M-101 PLATFORM PLAN - PART D

1/8" = 1'-0"

0 4' 8' 16'



2 / M-101 TYPICAL ELEVATOR MACHINE ROOM SECTION

1/8" = 1'-0"

0 4' 8' 16'



KEY PLAN

DRAFT IFB PACKAGE
NOT FOR CONSTRUCTION

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	0	06/10/20			INVITATION FOR BID
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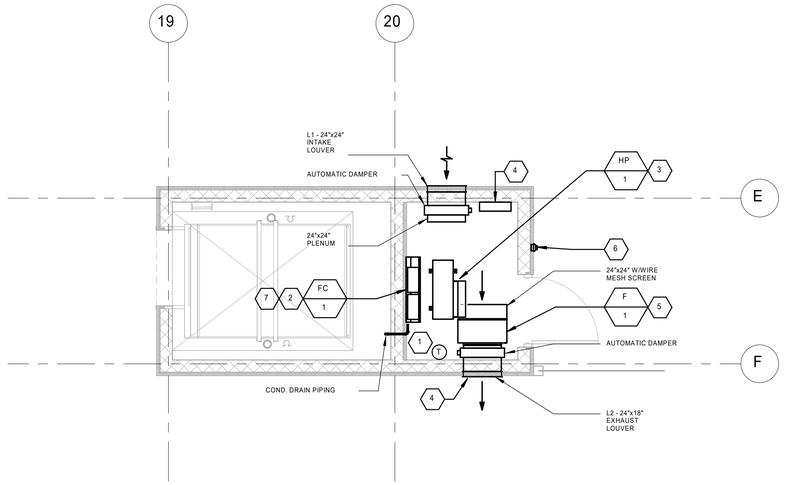
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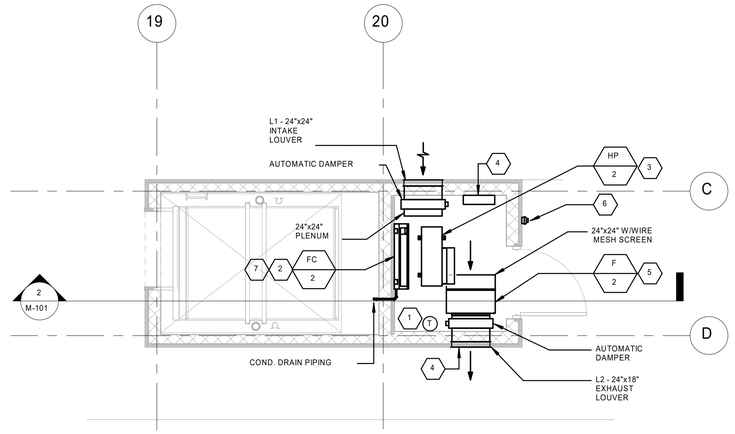
PLATFORM PLAN AND SECTION

IFB NO: IFB-020-019
DRAWING NO: M-101
SCALE: 1/8" = 1'-0"
SHEET NO: 159 OF 202



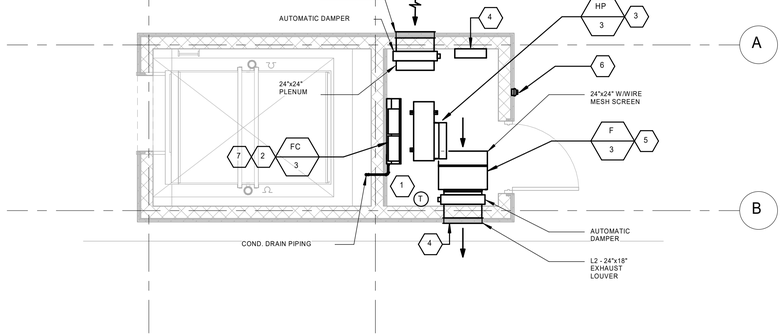
ENLARGED ELEVATOR 1
MACHINE ROOM PLAN

1 / M-401 — 1/4" = 1'-0" — 0 2' 4' 8'



ENLARGED ELEVATOR 2
MACHINE ROOM PLAN

2 / M-401 — 1/4" = 1'-0" — 0 2' 4' 8'



ENLARGED ELEVATOR 3
MACHINE ROOM PLAN

3 / M-401 — 1/4" = 1'-0" — 0 2' 4' 8'

GENERAL SHEET NOTES

1. FOR MECHANICAL SYMBOLS AND ABBREVIATIONS SEE DRAWING M-001.

SHEET KEYNOTES

1. PROVIDE AND INSTALL MOUNTED CONTROLLER/THERMOSTAT (MITSUBISHI PAR-33MAA-J) AND INTER-CONNECTION CONTROL WIRING. MOUNT AT 4'-0" AFF. COORDINATE EXACT LOCATION WITH ELEVATOR EQUIPMENT AND ELECTRICAL PANELS AND EQUIPMENT. SEE DETAIL ON DRAWING M-501.
2. PROVIDE AND INSTALL SPLIT SYSTEM INDOOR UNIT (FAN COIL). MOUNT BOTTOM OF UNIT AT A MINIMUM HEIGHT OF 7'-6" AFF.
3. PROVIDE AND INSTALL SPLIT SYSTEM OUTDOOR UNIT (HEAT PUMP) ON ROOF. PROVIDE AND INSTALL ACCESSORIES PER MANUFACTURERS INSTRUCTIONS. SUPPORT OUTDOOR UNIT ON MACHINE ROOM ROOF WITH ANGLED (SLOPED) ROOF CURBS RATED FOR EQUIPMENT WEIGHT. SECURE SUPPORT TO WALL AND OUTDOOR UNIT TO SUPPORT. PROVIDE AND INSTALL INTERCONNECTING REFRIGERANT PIPING AND CONTROL WIRING. PROVIDE AND INSTALL WEATHER-PROOF PIPING "BOOT" FOR PIPE AND CONDUIT PENETRATIONS. COORDINATE WORK WITH GENERAL AND ELECTRICAL CONTRACTORS. PROVIDE AND INSTALL TWO WIND BAFFLES AND TWO OUTLET GUIDES ON THE OUTDOOR CONDENSING UNIT, AND A NEMA 3R FUSED DISCONNECT ADJACENT TO OUTDOOR UNIT.
4. PROVIDE AND INSTALL REFRIGERANT MONITOR MSA CHILLGUARD 5000 WITH SENSOR AND VENTING TUBE. ROUTE VENTING TUBE TO DISCHARGE IN EXHAUST PLENUM NEAR BACK OF LOUVER. MOUNT MONITOR 4'-0" AFF AND INLET TUBE 6" AFF. COORDINATE EXACT LOCATION WITH ELEVATOR EQUIPMENT AND ELECTRICAL PANELS AND EQUIPMENT. COORDINATE WORK WITH GC AND EC AND ELEVATOR PROVIDER.
5. PROVIDE AND INSTALL FAN AND ACCESSORIES AS SCHEDULED M-501. PROVIDE AND INSTALL VIBRATION ISOLATION HANGERS AND MOUNT AS HIGH AS POSSIBLE. UNIT SHALL MOUNTED FROM ADDITIONAL SUPPORT STEEL SPANNING FROM SI STRUCTURAL MEMBERS. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION. PROVIDE AND INSTALL UNIT WALL MOUNTED LINE VOLTAGE MOUNTED DISCONNECT PER SCHEDULE ON M-501. PROVIDE AND INSTALL THERMOSTAT AT 4'-0" AFF. PROVIDE AND INSTALL 24x24x12 DEEP. INSULATED SHEET METAL PLENUM TO BACK OF INLET LOUVER. PROVIDE AND INSTALL INSULATED AUTOMATIC DAMPER AND CONTROL WIRING TO INTERLOCK WITH FAN. COORDINATE WORK WITH GC, EC AND ELEVATOR PROVIDER. PROVIDE AND INSTALL 19.5"x8" DUCT FROM FAN DISCHARGE INTO 24x24x24 DEEP INSULATED PLENUM. MOUNT PLENUM TO THE BACK OF THE EXHAUST LOUVER. PROVIDE ACCESS DOOR ON INLET AND EXHAUST PLENUMS.
6. PROVIDE AND INSTALL 24 AC/DC NEMA 4X HORN (85dB) AND RED FLASHING STROBE ADJACENT TO EMR ENTRY. PROVIDE AND INSTALL A WARNING SIGN INSIDE AND OUTSIDE OF EMR DOOR. COORDINATE WORK GC AND EC.
7. PROVIDE AND INSTALL 1-1/4" TYPE L COPPER CONDENSATE DRAIN. CONNECT TO FAN COIL UNIT DRAIN DISCHARGE WITH 1-1/4" PVC AND TRANSITION TO COPPER. ROUTE PIPE TO ELEVATOR PIT. TERMINATE 2" ABOVE PIT NEAR SUMP PUMP. INSULATE CONDENSATE DRAIN PIPING WITHIN THE ELEVATOR MACHINE ROOM WITH 1" THICK ARMAFLEX OR APPROVED EQUAL. PROVIDE AND INSTALL STEEL PIPE SLEEVE AT EXTERIOR WALL PENETRATION. SEE DETAIL ON DRAWING M-501.



KEY PLAN

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APPROVED BY COUNTY					

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COMMONWEALTH OF VIRGINIA
JON HELHOWSKI
Lic. No. 0402016185
PROFESSIONAL ENGINEER
6-10-2020

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QUANTICO STATION

ENLARGED PLANS

IFB NO: IFB-020-019
DRAWING NO: M-401
SCALE: 1/4" = 1'-0"
SHEET NO: 160 OF 202

GENERAL SHEET NOTES

1. FOR MECHANICAL SYMBOLS AND ABBREVIATIONS SEE DRAWING M-001.

HEAT PUMP UNIT SCHEDULE

MARK	BASIS OF DESIGN MFR	BASIS OF DESIGN MODEL	COOLING MBH	AMB TEMP°F	HEATING MBH @ 47°F	HEATING MBH @ 17°F	REFRIGERANT QUANTITY	REFRIGERANT TYPE	COMPRESSOR FAN				COMPRESSOR			VOLTS	PHASE	Hz	MCA	MOCP	NOTES
									CFM	NO.	FLA	WATTS	NO.	RLA	LRA						
HP-1	MITSUBISHI	PUZ-A36NHA4	34.2	95	38.0	25.0	6 LBS., 10 OZ	R-410A	1940	1	0.75	75	1	12	17.5	208	1	60	25	40	1, 2, 3, 4, 5, 6, 7
HP-2	MITSUBISHI	PUZ-A36NHA4	34.2	95	38.0	25.0	6 LBS., 10 OZ	R-410A	1940	1	0.75	75	1	12	17.5	208	1	60	25	40	1, 2, 3, 4, 5, 6, 7
HP-3	MITSUBISHI	PUZ-A36NHA4	34.2	95	38.0	25.0	6 LBS., 10 OZ	R-410A	1940	1	0.75	75	1	12	17.5	208	1	60	25	40	1, 2, 3, 4, 5, 6, 7

NOTES:
1. PROVIDE STANDARD FEATURES: HIGH PRESSURE SENSOR, HIGH PRESSURE SWITCH, OVERHEAT PROTECTION, OVER-CURRENT PROTECTION.
2. PROVIDE TWO WIND BAFFLES (WB-PA3) AND TWO OUTLET GUIDES (PAC-SH96SG-E) FOR LOW AMBIENT OPERATION (DOWN TO 5°F).
3. PROVIDE WITH MA REMOTE CONTROLLER (PAR-33MAA-J) WITH THERMOSTAT. FIELD INSTALLED AND WIRED.
4. PROVIDE BACnet INTERFACE (PAC-UKPRC001-CN-1) FIELD INSTALLED AND WIRED.
5. CONTRACTOR SHALL PROVIDE ANGLED ROOF CURB AND SECURE UNIT TO THE ROOF.
6. CONTRACTOR SHALL PROVIDE FOR INTERCONNECTING REFRIGERANT PIPE, INSULATION, PIPE HANGERS AND CONTROL WIRING. COORDINATE ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
7. PROVIDE NEMA 3R FUSED DISCONNECT, WALL MOUNT ADJACENT TO CU UNIT.

FAN COIL SCHEDULE

MARK	BASIS OF DESIGN MFR	BASIS OF DESIGN MODEL	CFM	ESP IN. W.G.	TOTAL MBH	SENSIBLE MBH	ROOM TEMP °F db/ °F wb	VOLTS	PHASE	Hz	NOTES
FC-1	MITSUBISHI	PKA-A36KA4	705, 810, 920	N/A DUCTLESS	34.2	23.9	80 / 67	208	1	60	1, 2, 3
FC-2	MITSUBISHI	PKA-A36KA4	705, 810, 920	N/A DUCTLESS	34.2	23.9	80 / 67	208	1	60	1, 2, 3
FC-3	MITSUBISHI	PKA-A36KA4	705, 810, 920	N/A DUCTLESS	34.2	23.9	80 / 67	208	1	60	1, 2, 3

NOTES:
1. STANDARD FEATURES: POLYPROPYLENE HONEYCOMB AIR FILTER.
2. PROVIDE UNIT WITH MULTI-SPEEDS.
3. CONTRACTOR SHALL PROVIDE MANUFACTURERS WALL MOUNT BRACKET.

FAN SCHEDULE

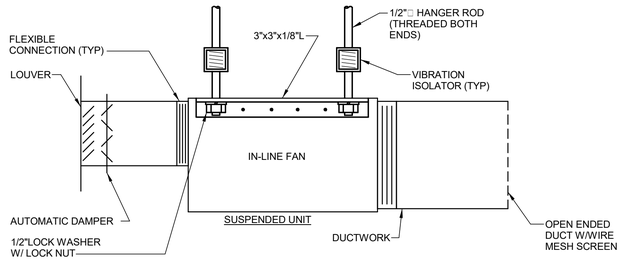
MARK	MFR	MODEL	TYPE	CFM	RPM	EXTERNAL SP (IN WG)	WHEEL		DRIVE	MOTOR				NOTE
							TYPE	MIN DIA		INPUT WATTS	VOLTS	PHASE	Hz	
F-1	GREENHECK	CSP-A700	INLINE CABINET	715	1092	0.4	FORWARD CURVED	7.75	DIRECT	56	115	1	60	1, 2, 3, 4, 5
F-2	GREENHECK	CSP-A700	INLINE CABINET	715	1092	0.4	FORWARD CURVED	7.75	DIRECT	56	115	1	60	1, 2, 3, 4, 5
F-3	GREENHECK	CSP-A700	INLINE CABINET	715	1092	0.4	FORWARD CURVED	7.75	DIRECT	56	115	1	60	1, 2, 3, 4, 5

NOTES:
1. PROVIDE MOTOR WITH THERMAL OVERLOAD, CSA APPROVAL, 40 DEGREE C AMBIANT TEMPERATURE, UL/ULc 507 LISTED, AND RATED FOR CONTINUOUS USE.
2. PROVIDE SOLID STATE SPEED CONTROL, 6 AMP, FOR BALANCING AIR FLOW; FIELD MOUNTED AND WIRED ON FAN.
3. PROVIDE ISOLATION KIT (PN: VI KIT SP/CSP) FIELD INSTALLED.
4. PROVIDE NEMA 1 DISCONNECT SWITCH.
5. PROVIDE THERMOSTAT COOLING WITH HIGH LIMIT SHUT OFF.

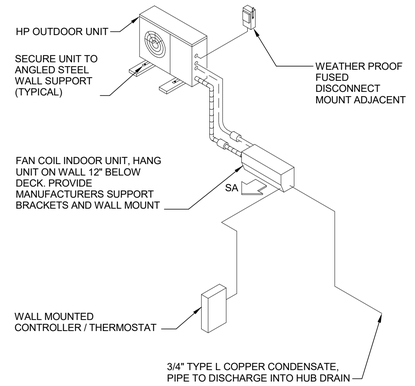
LOUVER SCHEDULE

MARK	MFR	MODEL	CFM	MAX. PD IN. WG	FACE VEL FPM	SIZE	FREE AREA	NOTE
L-1	RUSKIN	ELF375DX	715	0.1	372	24" W x 24" H	1.92	1, 3
L-2	RUSKIN	ELF375DX	715	0.1	538	24" W x 18" H	1.33	2, 3

NOTES:
1. PROVIDE INTAKE WITH INSECT SCREEN
2. PROVIDE EXHAUST WITH BIRD SCREEN
3. PROVIDE WITH INSULATED AD



1 M-501 **IN-LINE FAN SUPPORT DETAIL**
NO SCALE



2 M-501 **(FC-1,2,3 / HP-1,2,3) DETAIL**
NO SCALE

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APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
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APPROVED BY COUNTY					

DESIGNED BY: J. SICKLER
DRAWN BY: J. SICKLER
CHECKED BY: M. LEVENGOOD
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
JON HELHOWSKI
Lic. No. 0402016185
PROFESSIONAL ENGINEER
6-10-2020

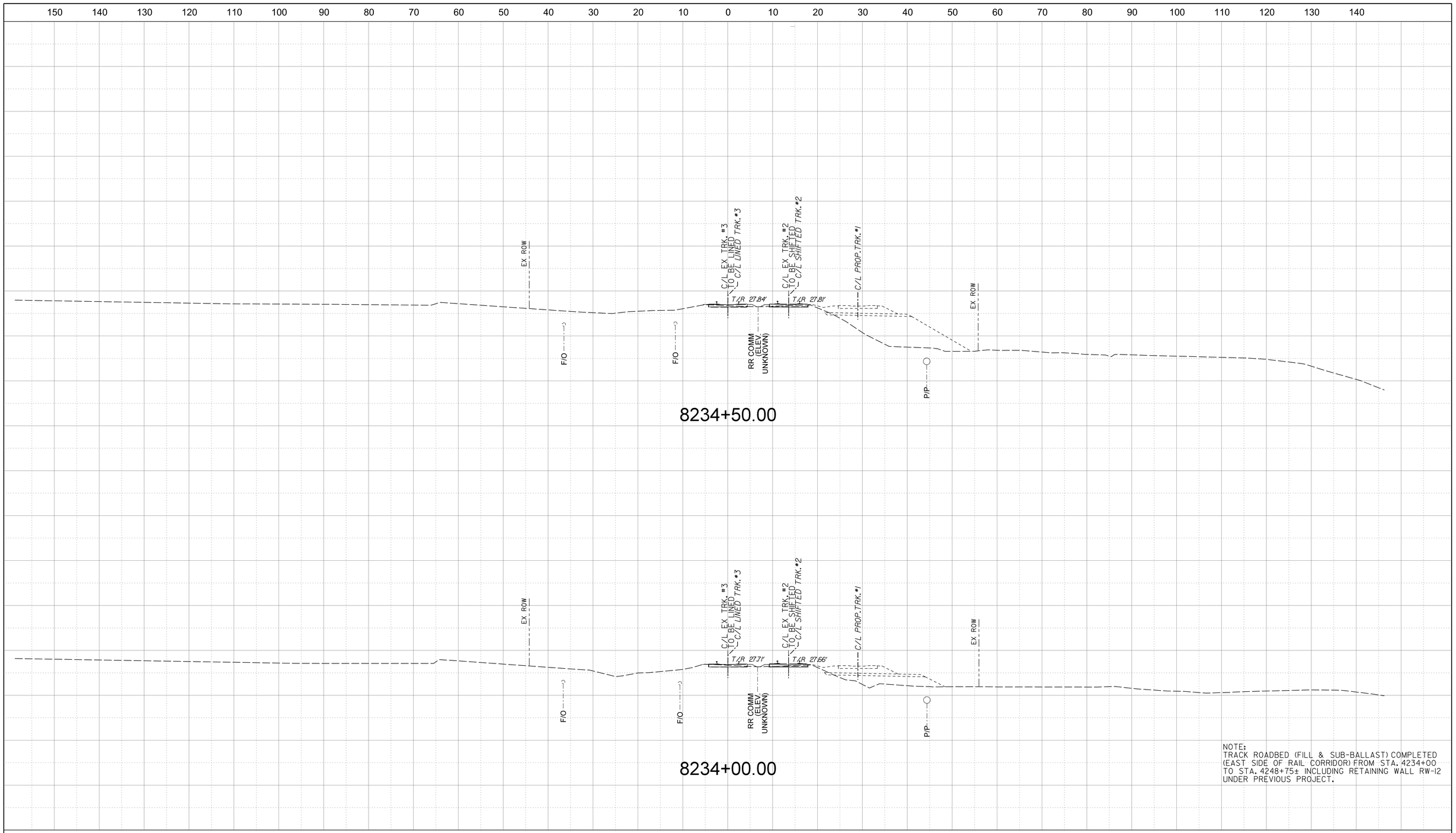
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QUANTICO STATION

SCHEDULES AND DETAILS

IFB NO: IFB-020-019
DRAWING NO: M-601
SCALE: AS NOTED
SHEET NO: 161 OF 202



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
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DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
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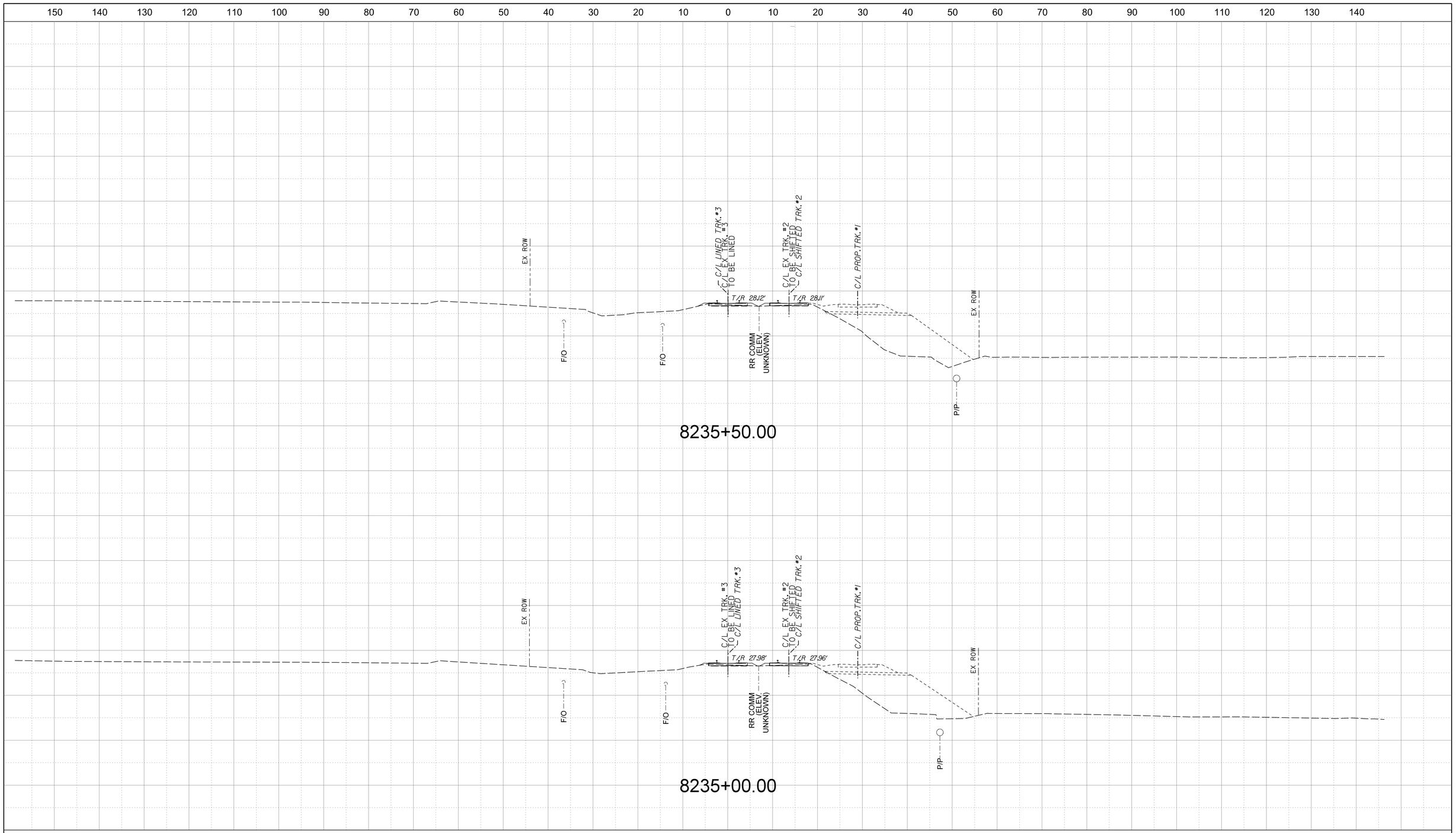
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QUANTICO STATION

STA. 8234+00.00
TO
STA. 8234+50.00

IFB NO: IFB-020-019
DRAWING NO: XS-001
SCALE: 1" = 10'
SHEET NO: 162 OF 202

$$FILESS
$$DATESS
$$TIMESS



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NOT FOR CONSTRUCTION

NOTE:
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06-10-2020
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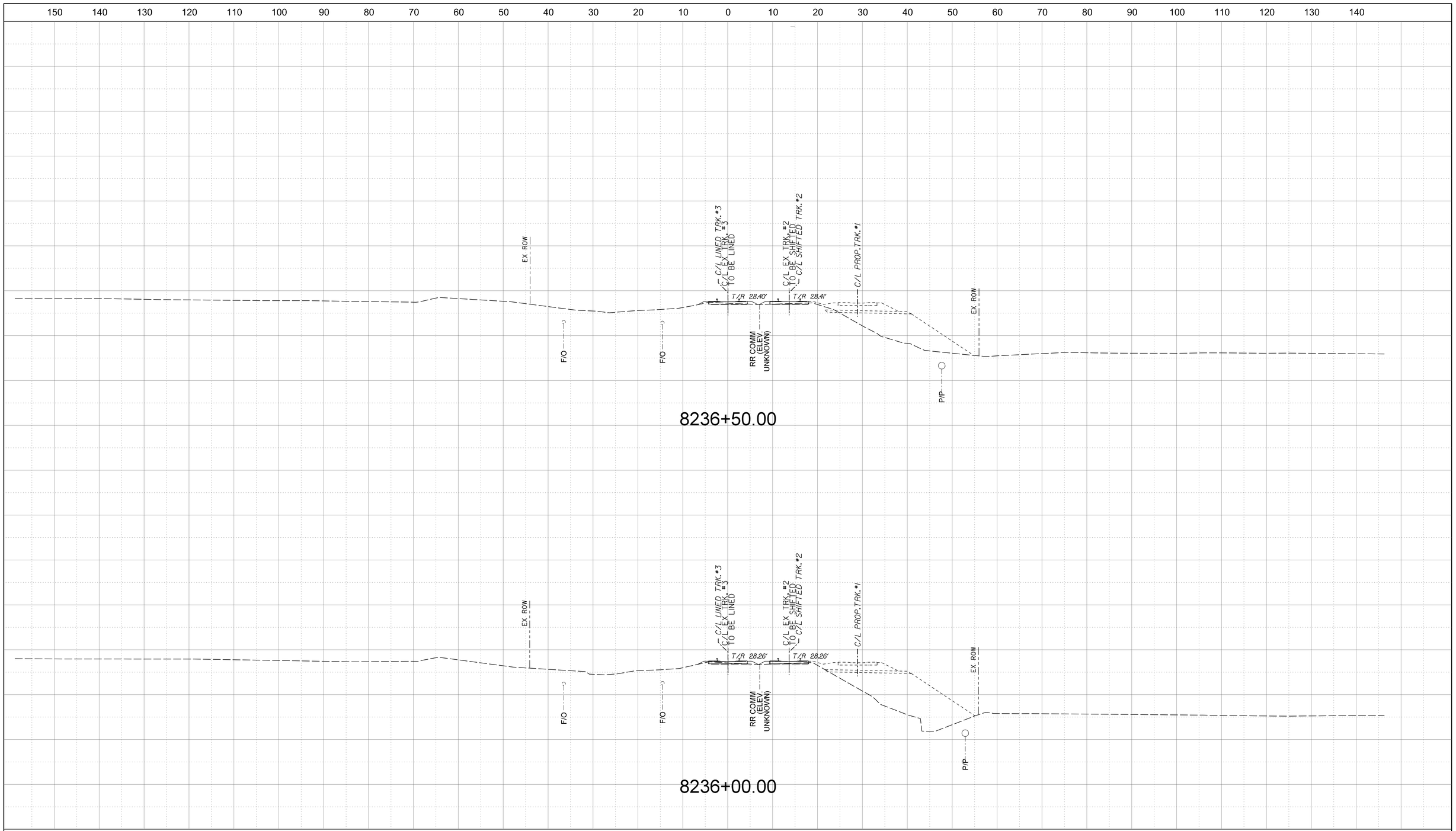
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QUANTICO STATION

STA. 8235+00.00
TO
STA. 8235+50.00

IFB NO: IFB-020-019
DRAWING NO: XS-002
SCALE: 1" = 10'
SHEET NO: 163 OF 202

$$FILES$
$$DATES$
$$TIMES$



INVITATION FOR BID
NOT FOR CONSTRUCTION

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DRAWN BY: KRJ
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06-10-2020
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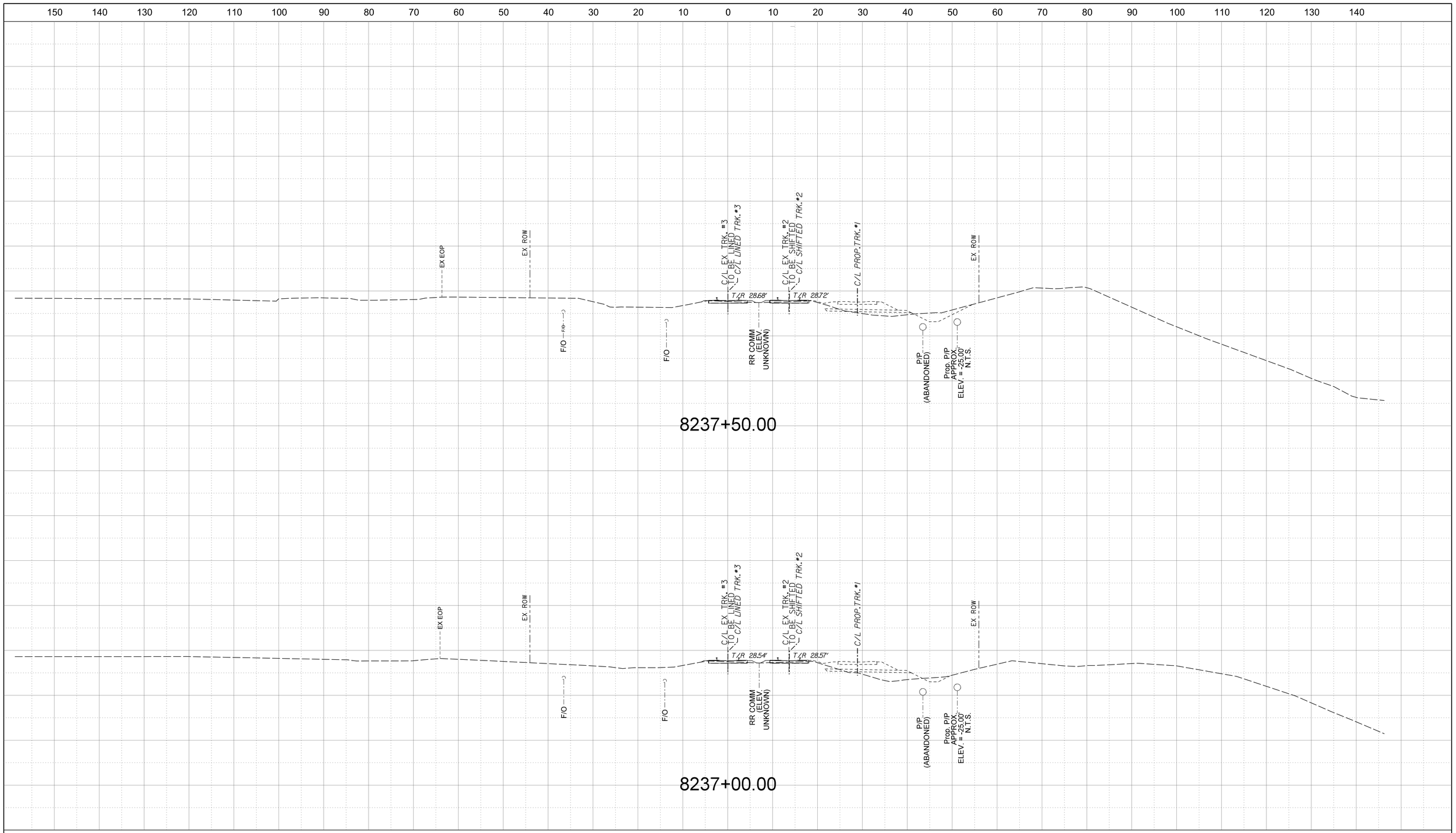
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QUANTICO STATION

STA. 8236+00.00
TO
STA. 8236+50.00

IFB NO: IFB-020-019
DRAWING NO: XS-003
SCALE: 1" = 10'
SHEET NO: 164 OF 202

$$FILESS
$$DATESS
$$TIMESS



INVITATION FOR BID
NOT FOR CONSTRUCTION

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DATE: 06/10/2020

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06-10-2020
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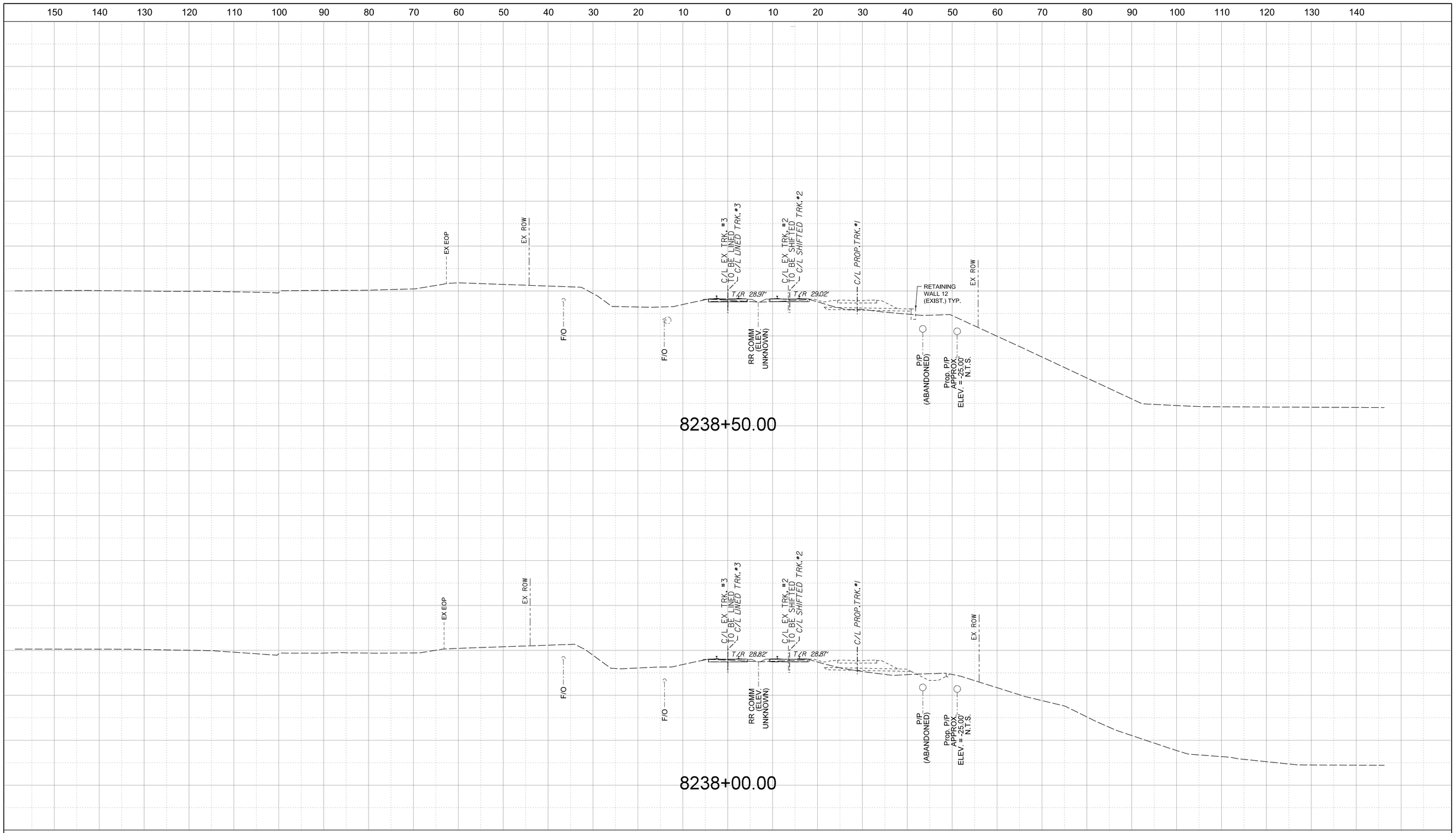
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Fairfax, Virginia 22031

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TO
STA. 8237+50.00

IFB NO: IFB-020-019
DRAWING NO: XS-004
SCALE: 1" = 10'
SHEET NO: 165 OF 202

$$FILES$
$$DATES$
$$TIMES$



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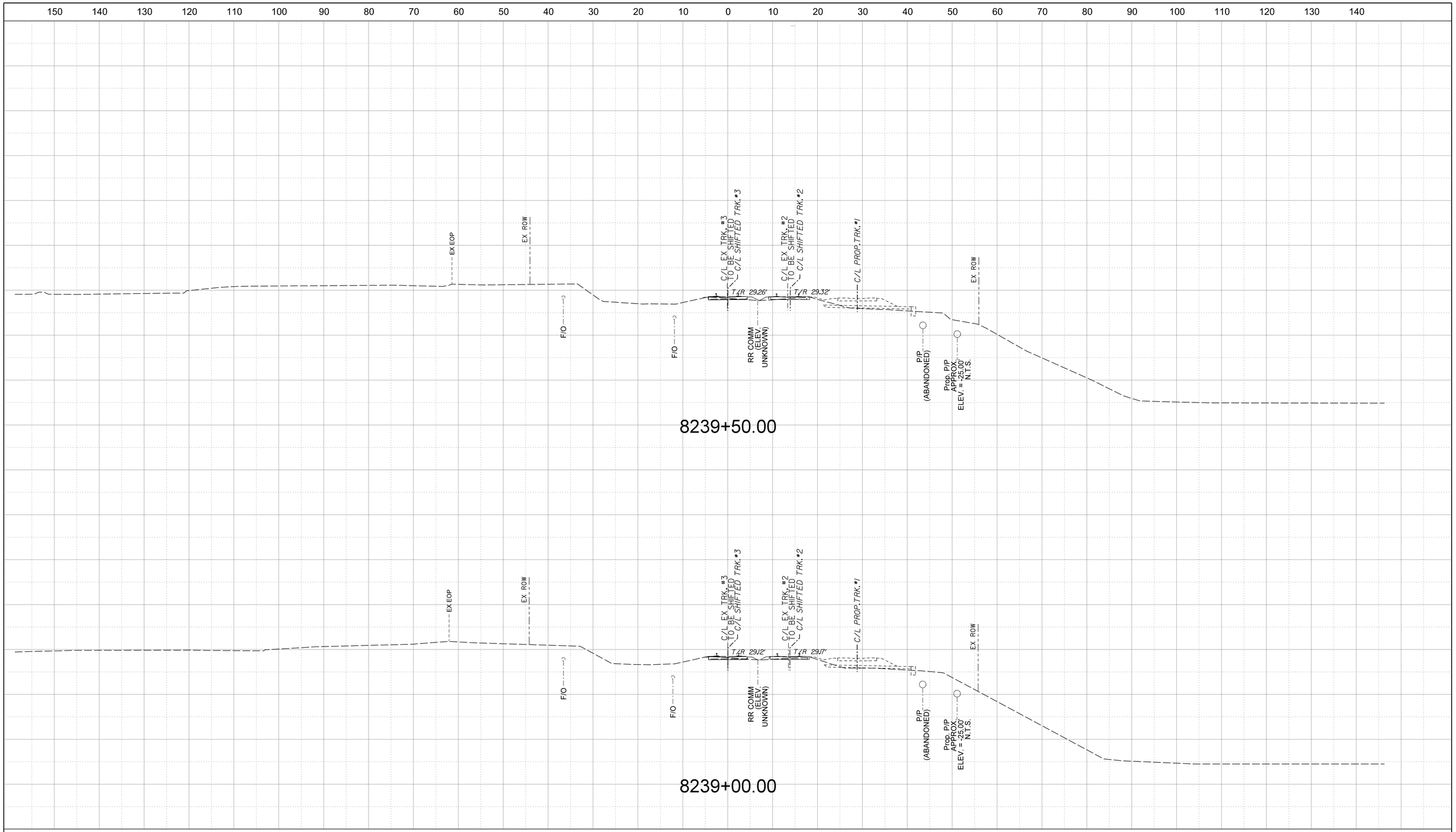
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TO
STA. 8238+50.00

IFB NO: IFB-020-019
DRAWING NO: XS-005
SCALE: 1" = 10'
SHEET NO: 166 OF 202

$$FILES$
$$DATES$
$$TIMES$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE

APPROVED BY COUNTY

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	06/10/20			INVITATION FOR BID

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

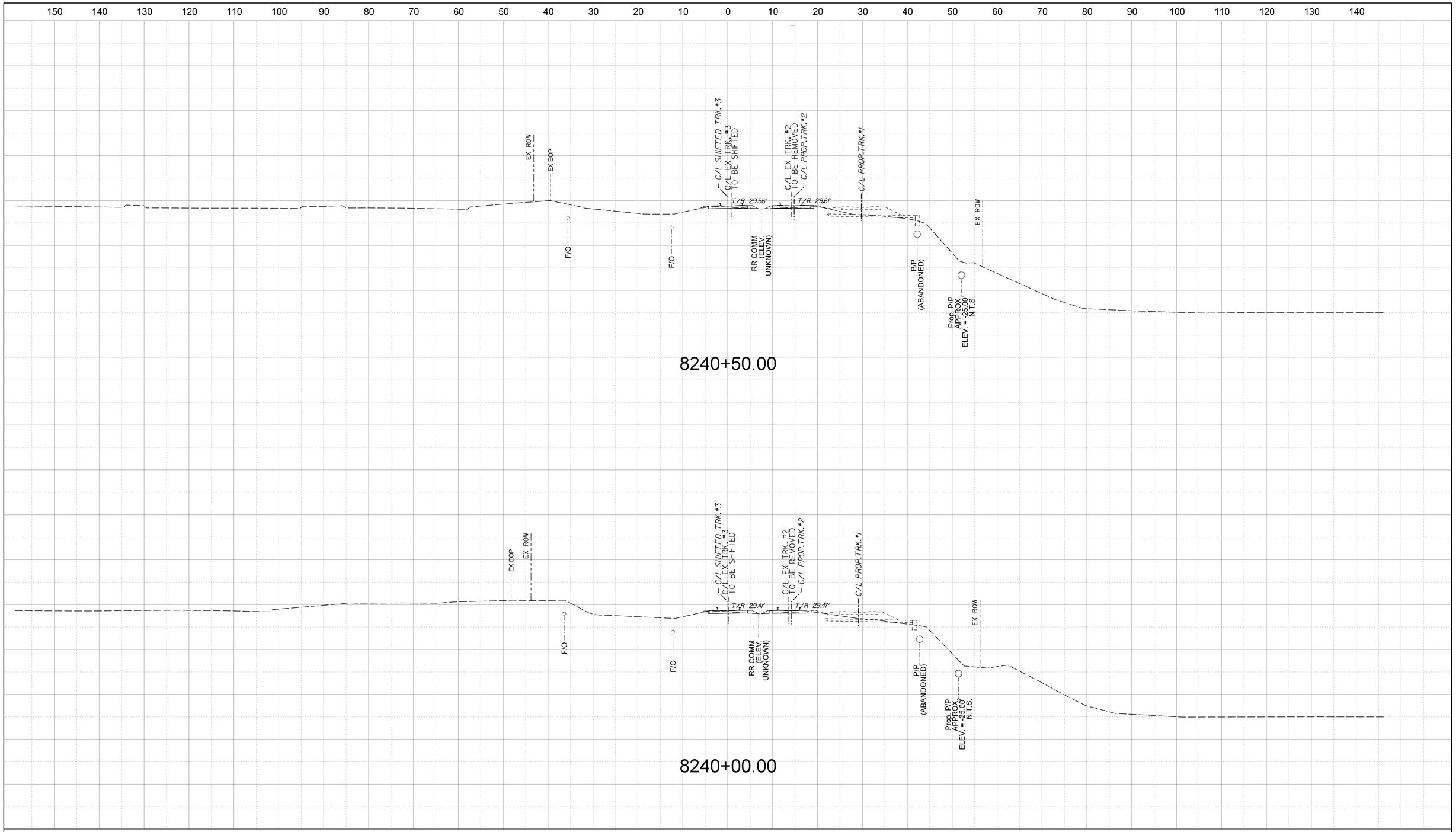
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8239+00.00
TO
STA. 8239+50.00

IFB NO: IFB-020-019
DRAWING NO: XS-006
SCALE: 1" = 10'
SHEET NO: 167 OF 202

$$FILESS
$$DATESS
$$TIMESS



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

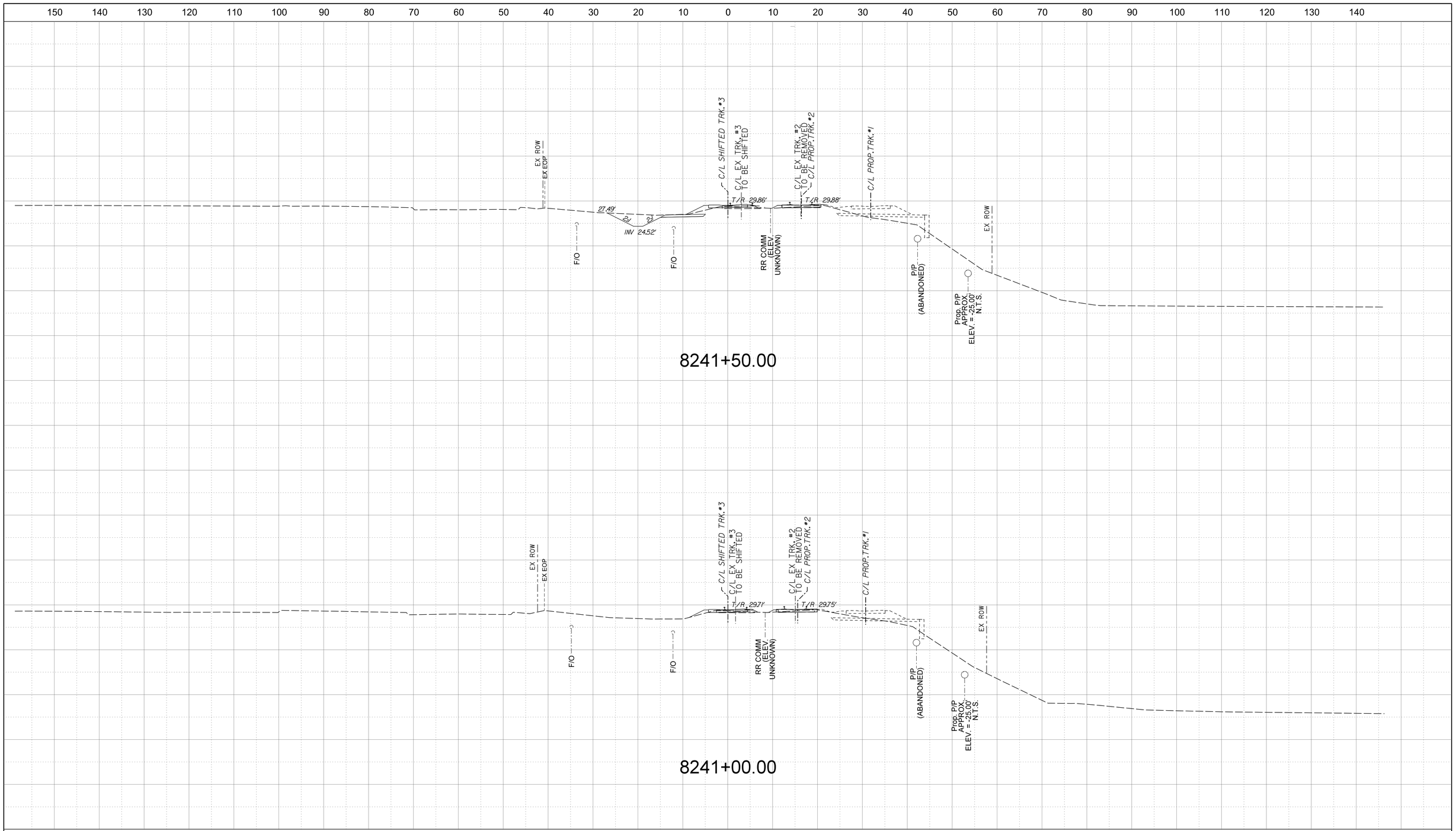
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8240+00.00
TO
STA. 8240+50.00

IFB NO: IFB-020-019
DRAWING NO: XS-007
SCALE: 1" = 10'
SHEET NO: 168 OF 202

$$FILE$$
$$DATE$$
$$TIME$$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

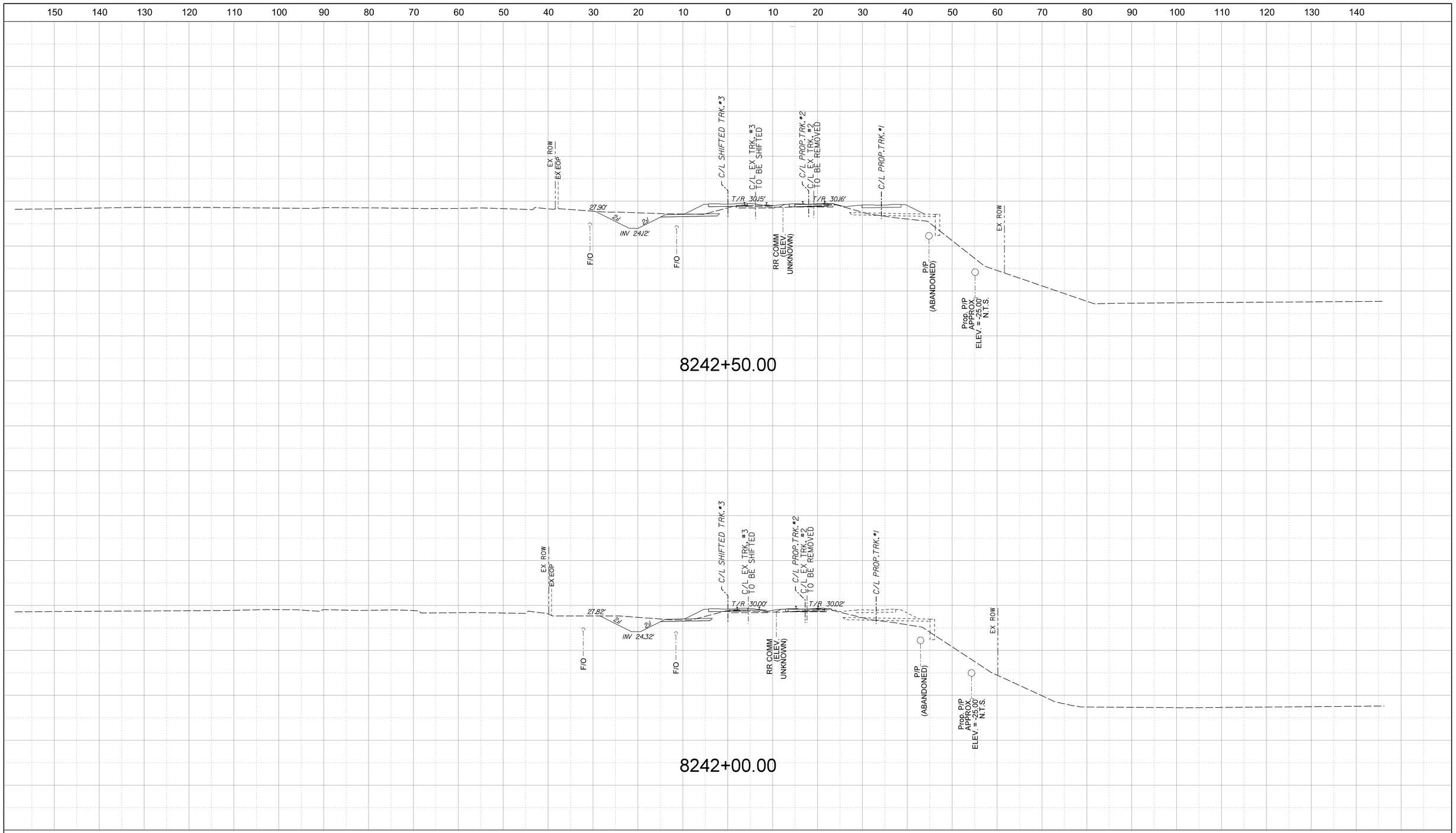
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8241+00.00
TO
STA. 8241+50.00

IFB NO: IFB-020-019
DRAWING NO: XS-008
SCALE: 1" = 10'
SHEET NO: 169 OF 202

$$FILES$
$$DATES$
$$TIMES$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

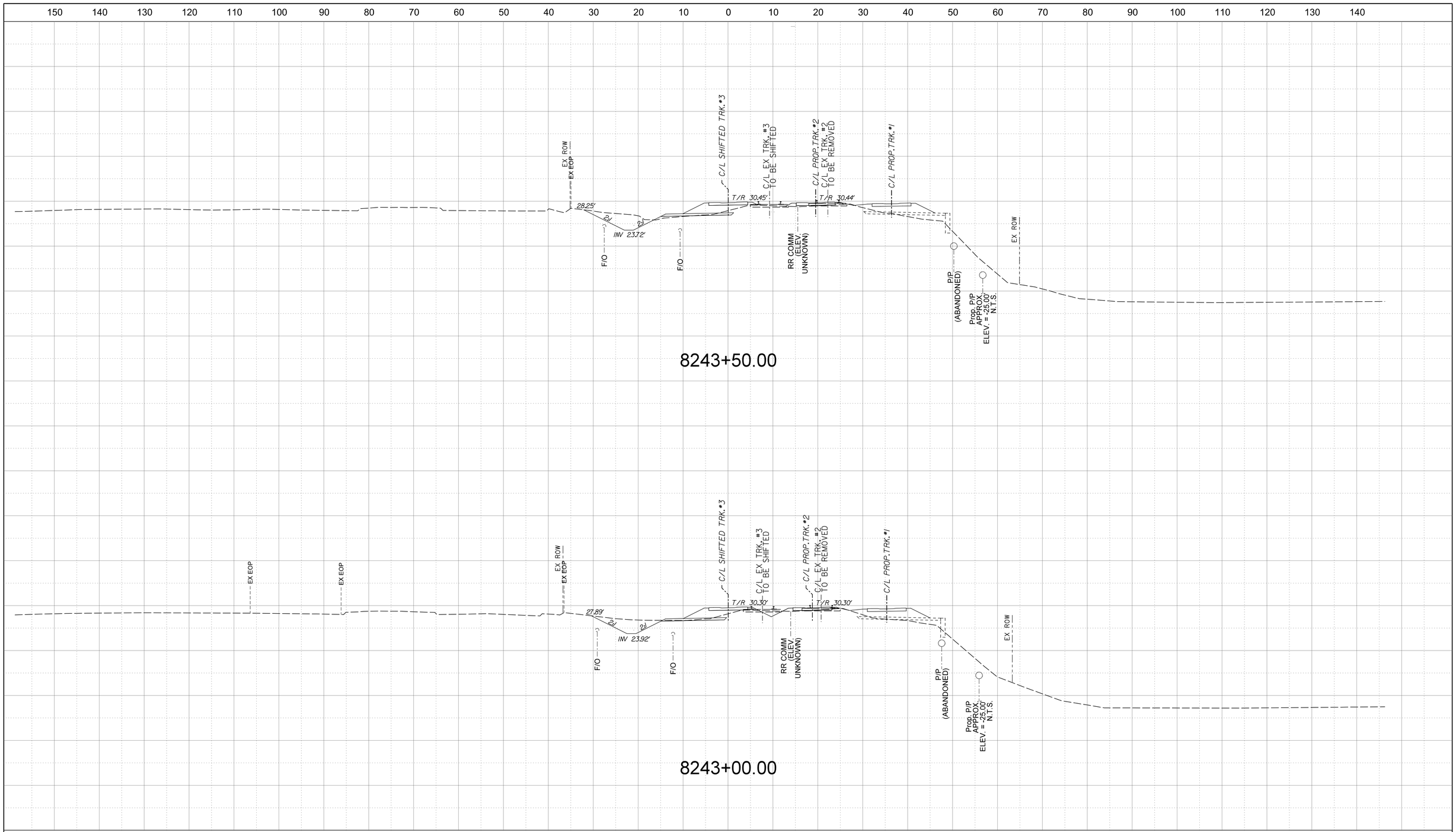
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8242+00.00
TO
STA. 8242+50.00

IFB NO: IFB-020-019
DRAWING NO: XS-009
SCALE: 1" = 10'
SHEET NO: 170 OF 202

$$FILESS
$$DATESS
$$TIMESS



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

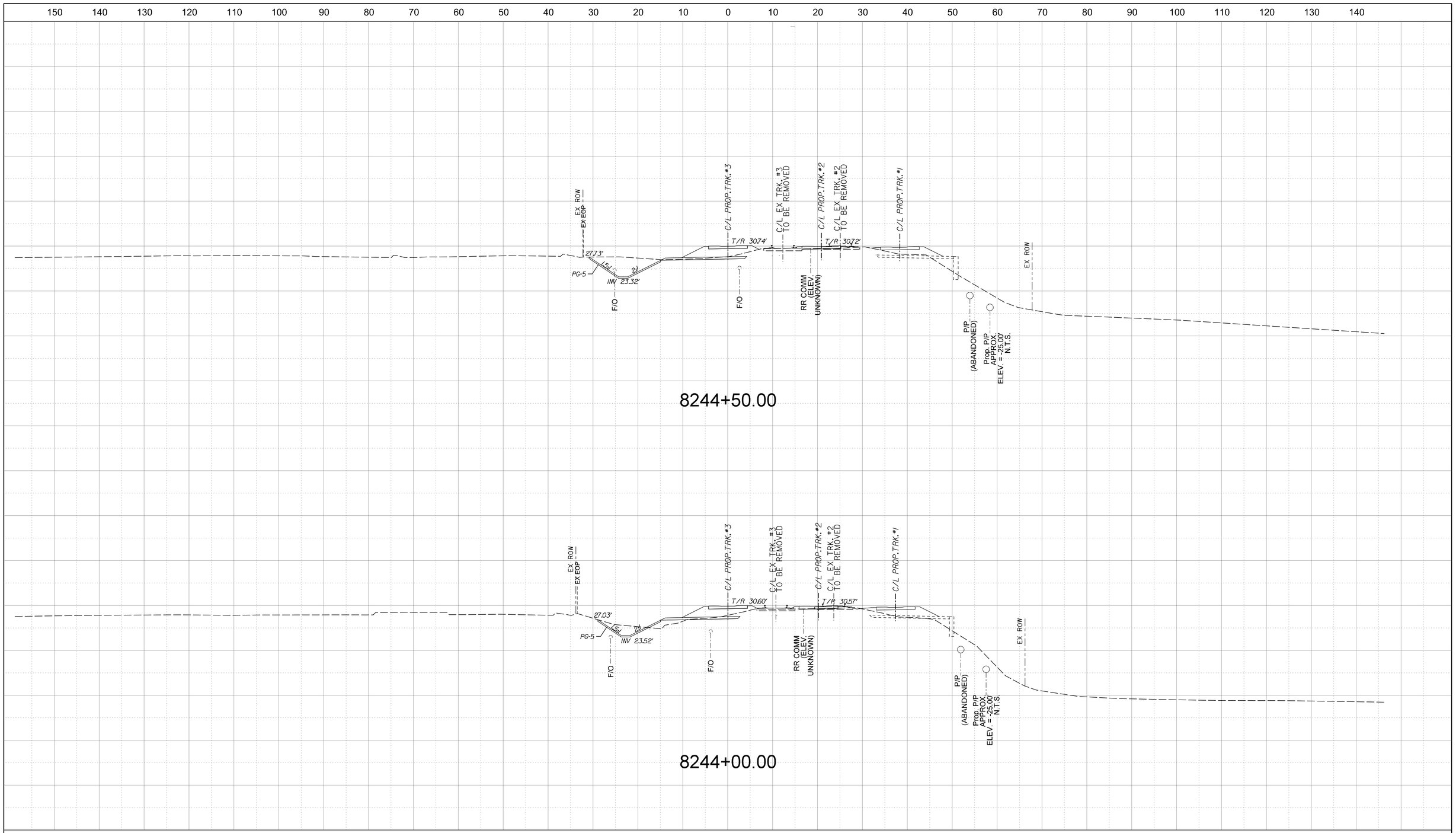
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8243+00.00
TO
STA. 8243+50.00

IFB NO: IFB-020-019
DRAWING NO: XS-010
SCALE: 1" = 10'
SHEET NO: 171 OF 202

$$FILES$
$$DATES$
$$TIMES$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

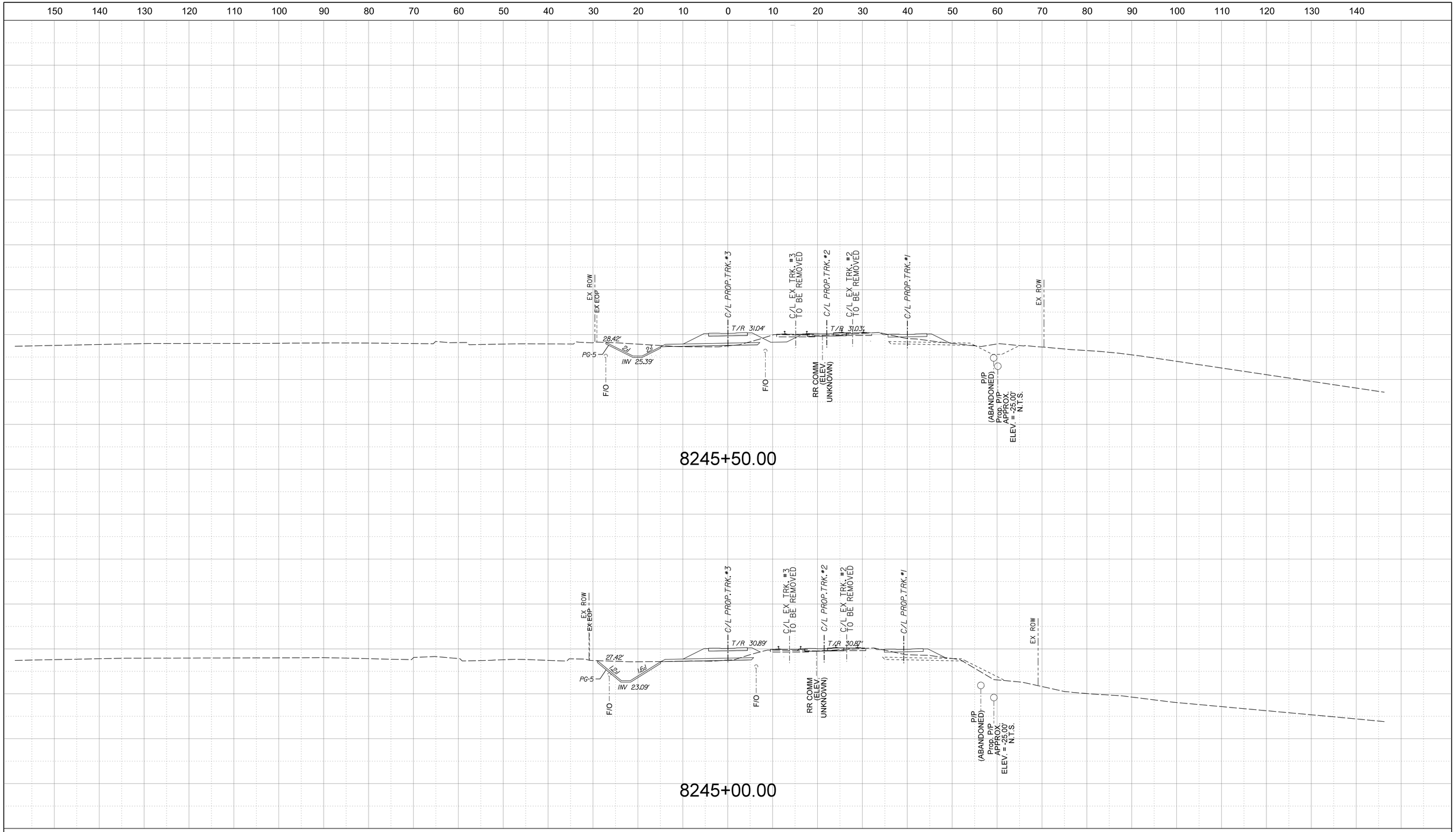
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8244+00.00
TO
STA. 8244+50.00

IFB NO: IFB-020-019
DRAWING NO: XS-011
SCALE: 1" = 10'
SHEET NO: 172 OF 202

$$FILESS
$$DATESS
$$TIMESS



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

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DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

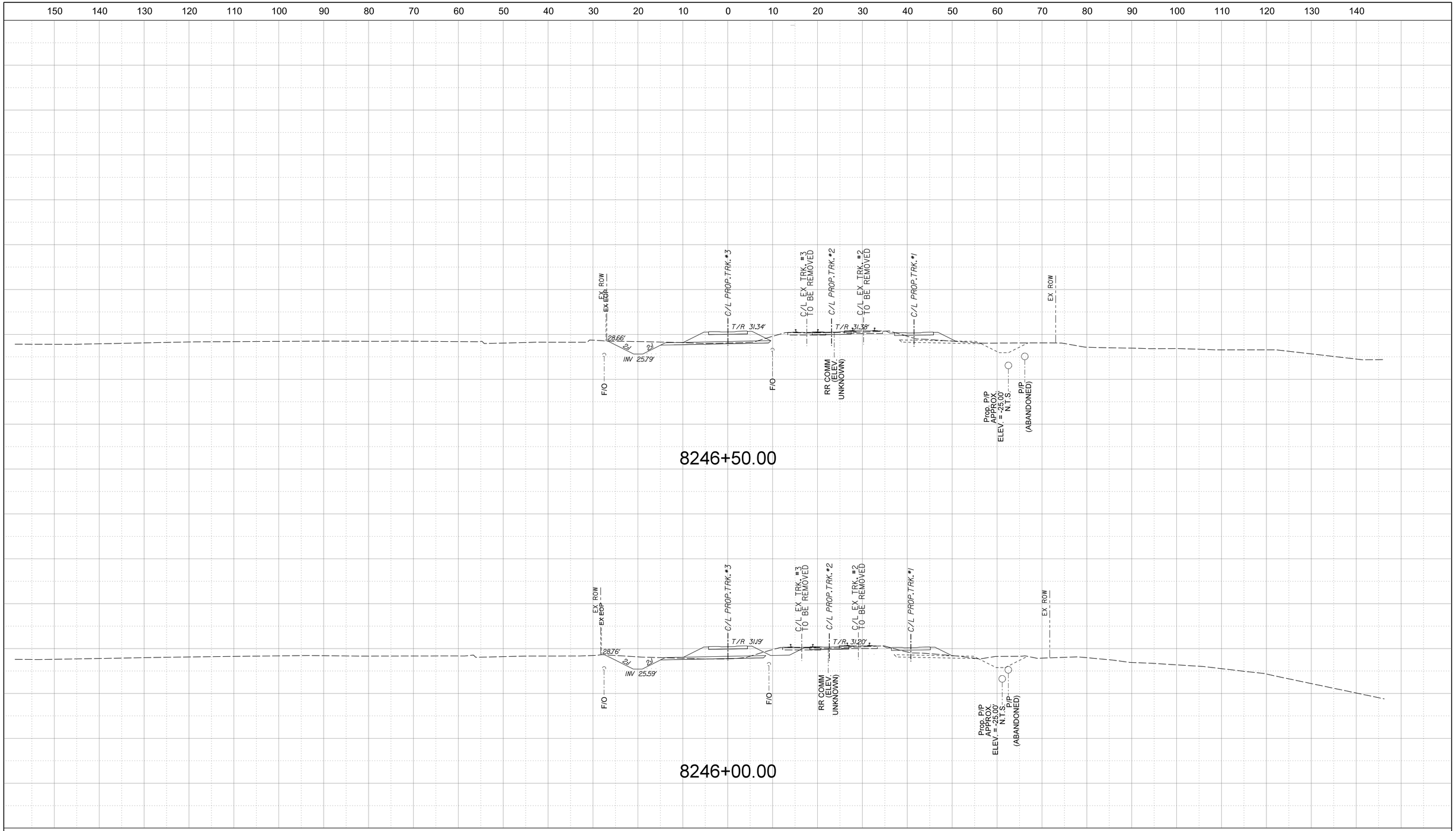
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8245+00.00
TO
STA. 8245+50.00

IFB NO: IFB-020-019
DRAWING NO: XS-012
SCALE: 1" = 10'
SHEET NO: 173 OF 202

$$FILES$
$$DATES$
$$TIMES$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
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APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
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COMMONWEALTH OF VIRGINIA
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06-10-2020
PROFESSIONAL ENGINEER

VRE

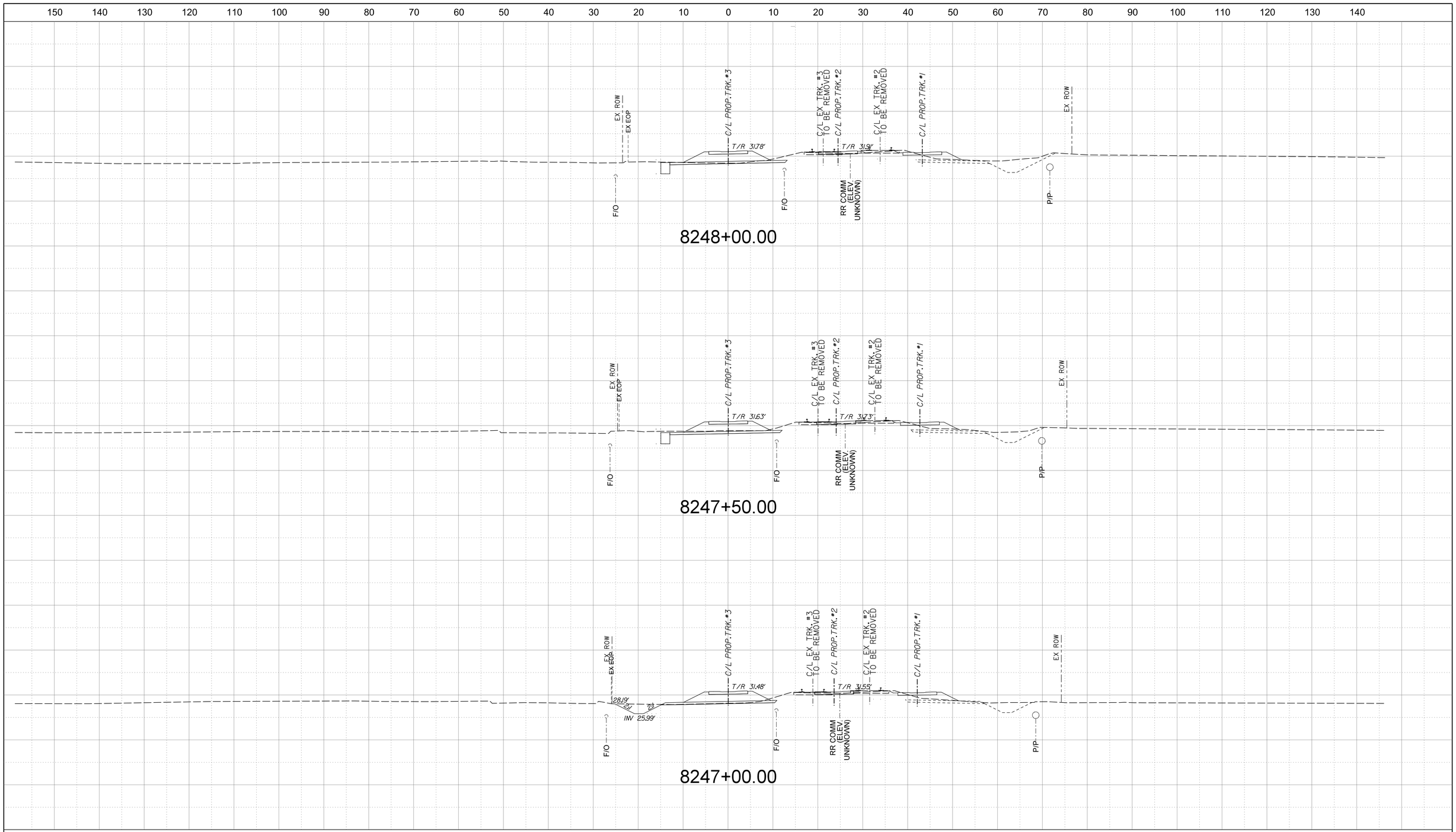
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8246+00.00
TO
STA. 8246+50.00

IFB NO: IFB-020-019
DRAWING NO: XS-013
SCALE: 1" = 10'
SHEET NO: 174 OF 202

$$FILESS
$$DATESS
$$TIMESS



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
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COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
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06-10-2020
PROFESSIONAL ENGINEER

VRE

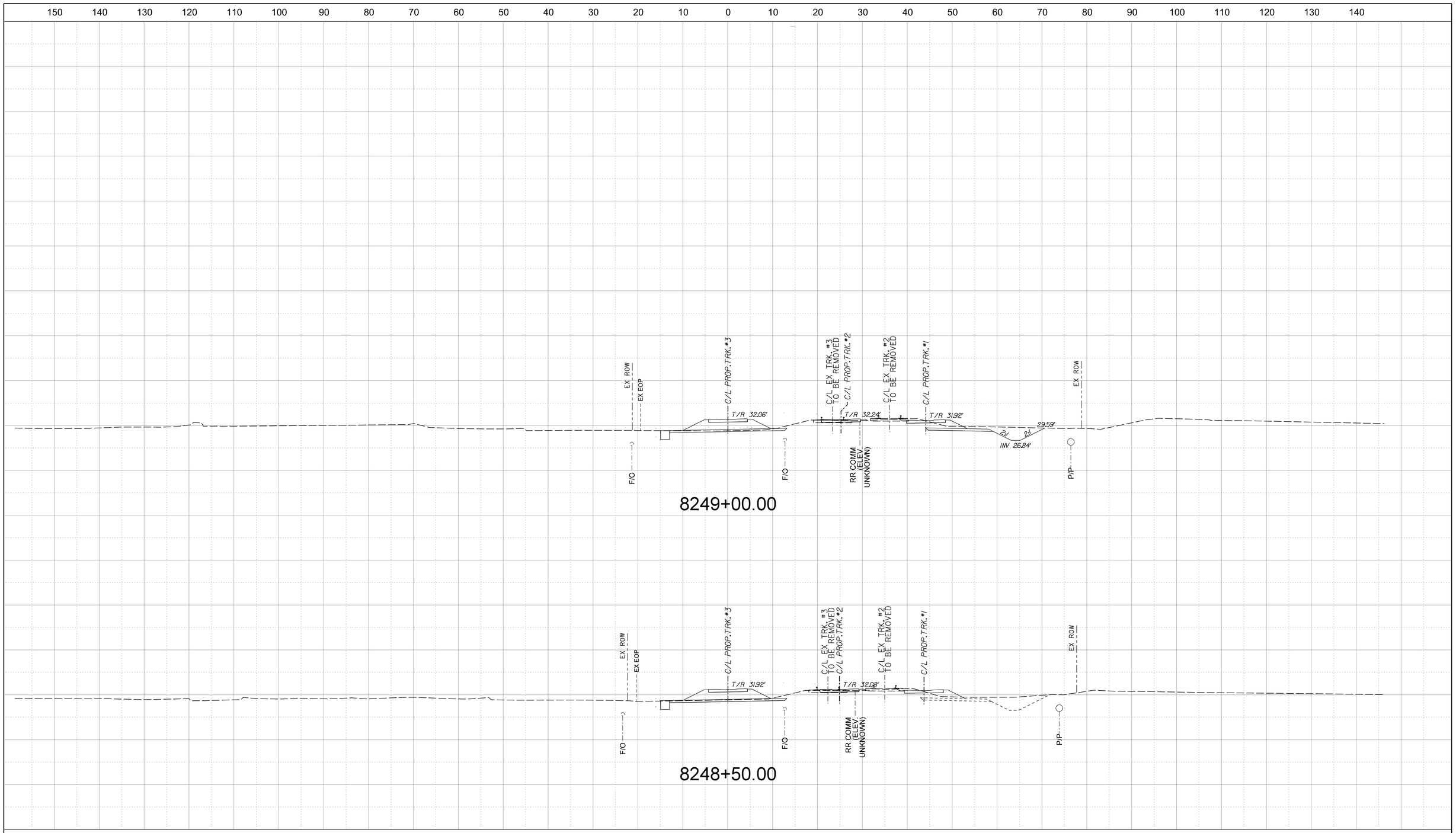
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8247+00.00
TO
STA. 8248+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-014
SCALE: 1" = 10'
SHEET NO: 175 OF 202

$$FILE$$
$$DATE$$
$$TIME$$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

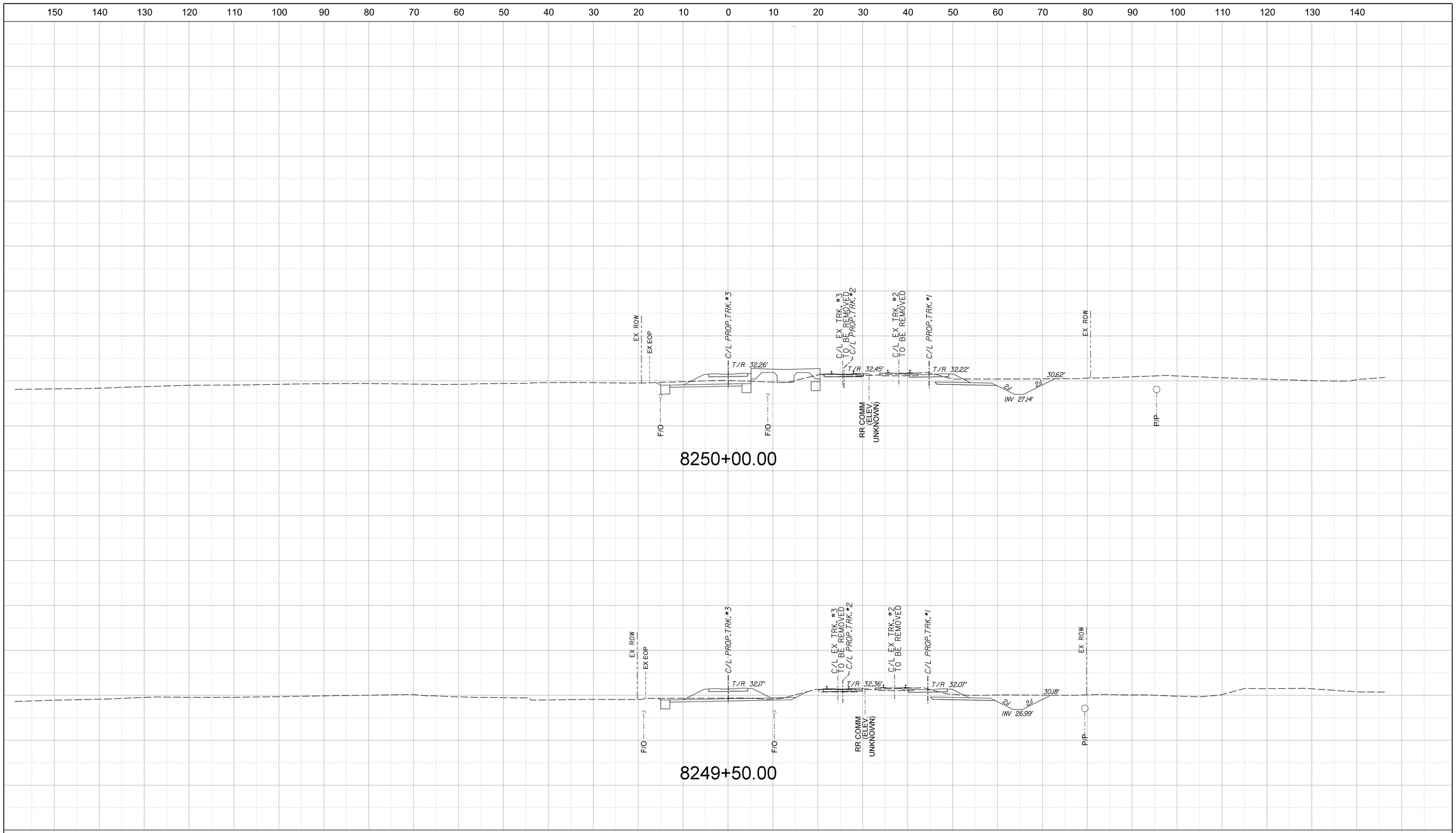
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8248+50.00
TO
STA. 8249+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-015
SCALE: 1" = 10'
SHEET NO: 176 OF 202

$$FILE$$
$$DATE$$
$$TIME$$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
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APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

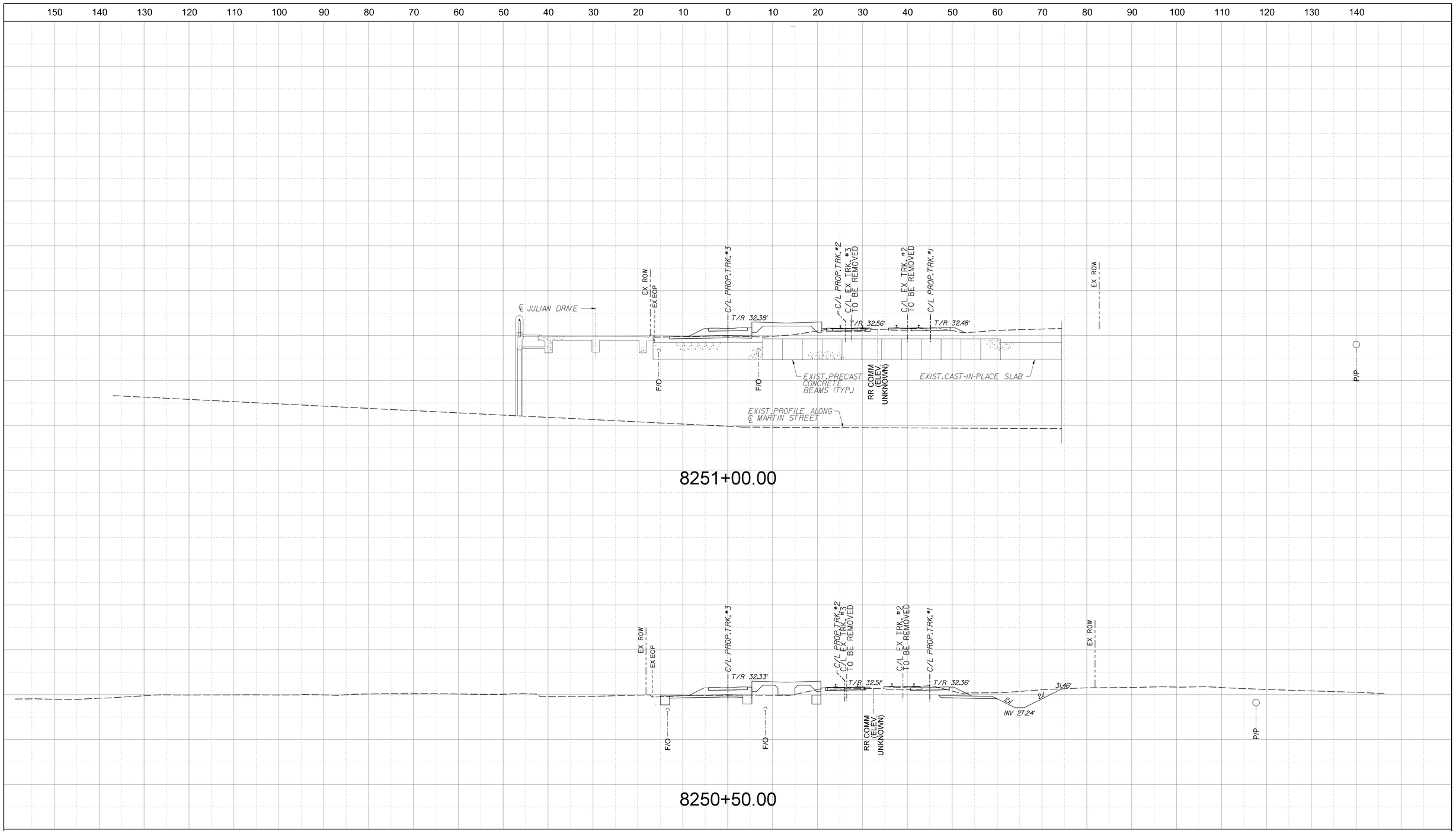
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8249+50.00
TO
STA. 8250+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-016
SCALE: 1" = 10'
SHEET NO: 177 OF 202

$$FILESS
$$DATESS
$$TIMESS



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

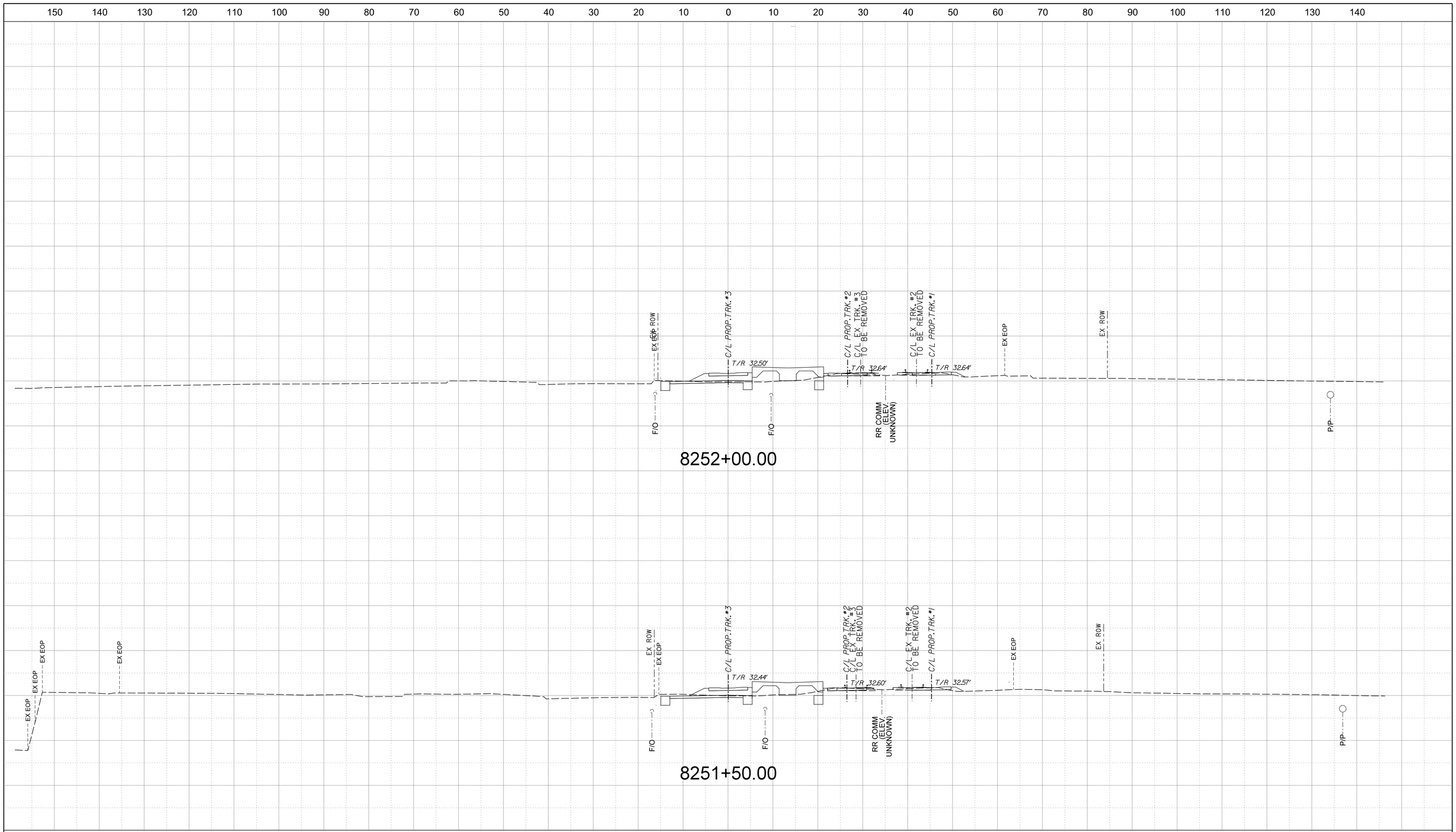
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8250+50.00
TO
STA. 8251+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-017
SCALE: 1" = 10'
SHEET NO: 178 OF 202

$$FILESS
$$DATESS
$$TIMESS



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE

APPROVED BY COUNTY

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	06/10/20			INVITATION FOR BID

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

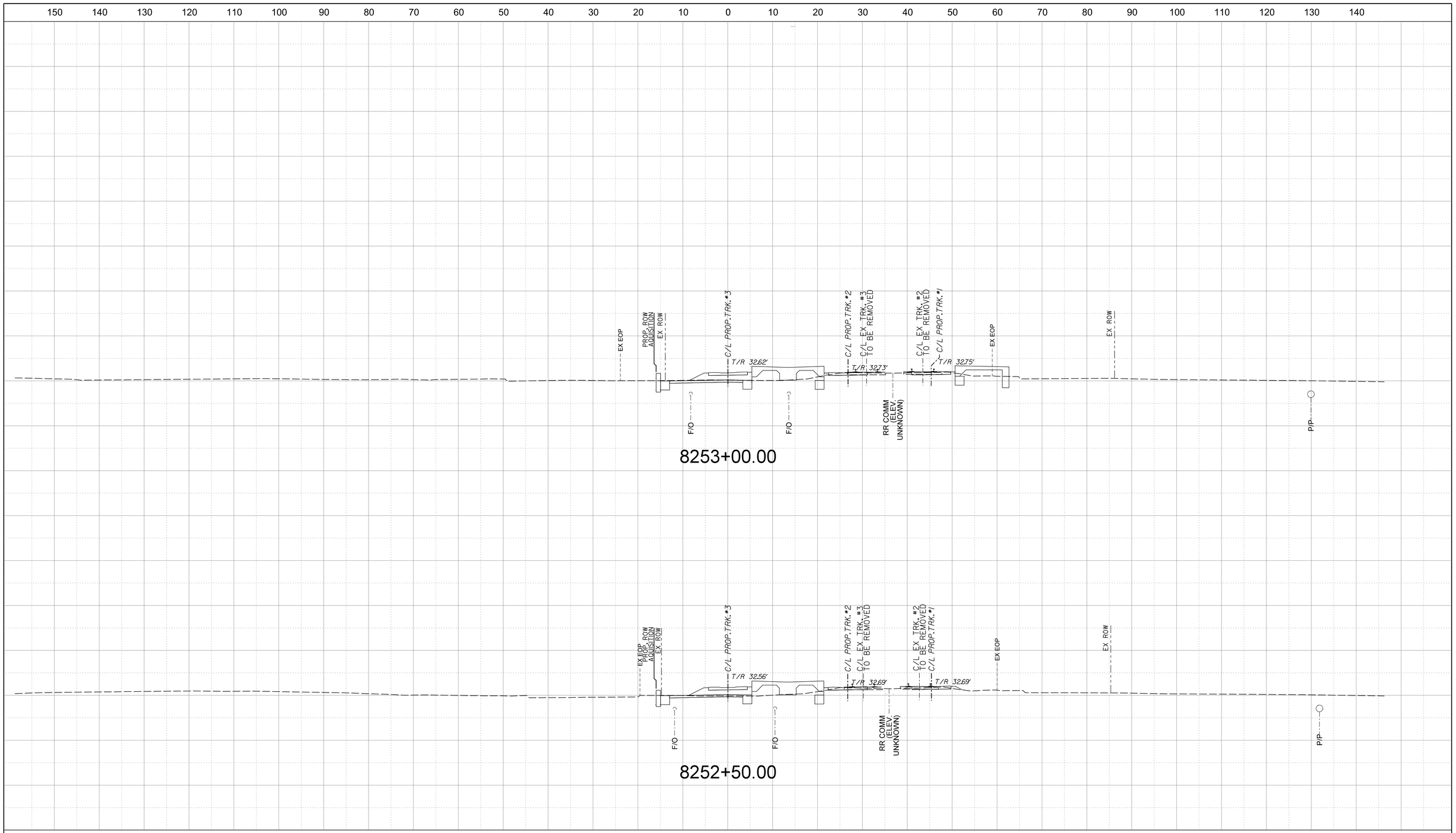
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8251+50.00
TO
STA. 8252+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-018
SCALE: 1" = 10'
SHEET NO: 179 OF 202

$$FILESS
$$DATESS
$$TIMESS



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

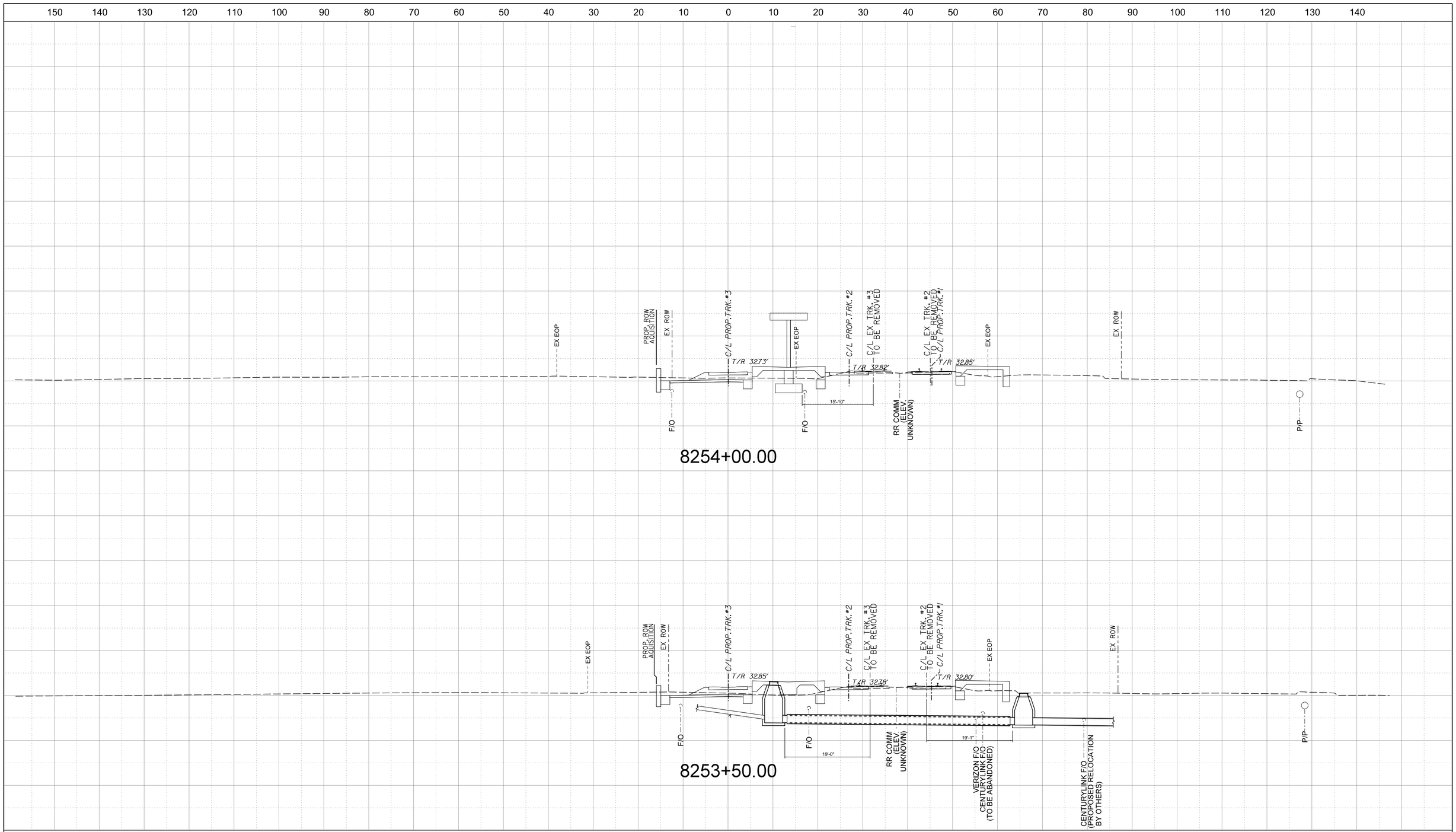
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8252+50.00
TO
STA. 8253+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-019
SCALE: 1" = 10'
SHEET NO: 180 OF 202

$$FILESS
$$DATESS
$$TIMESS



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

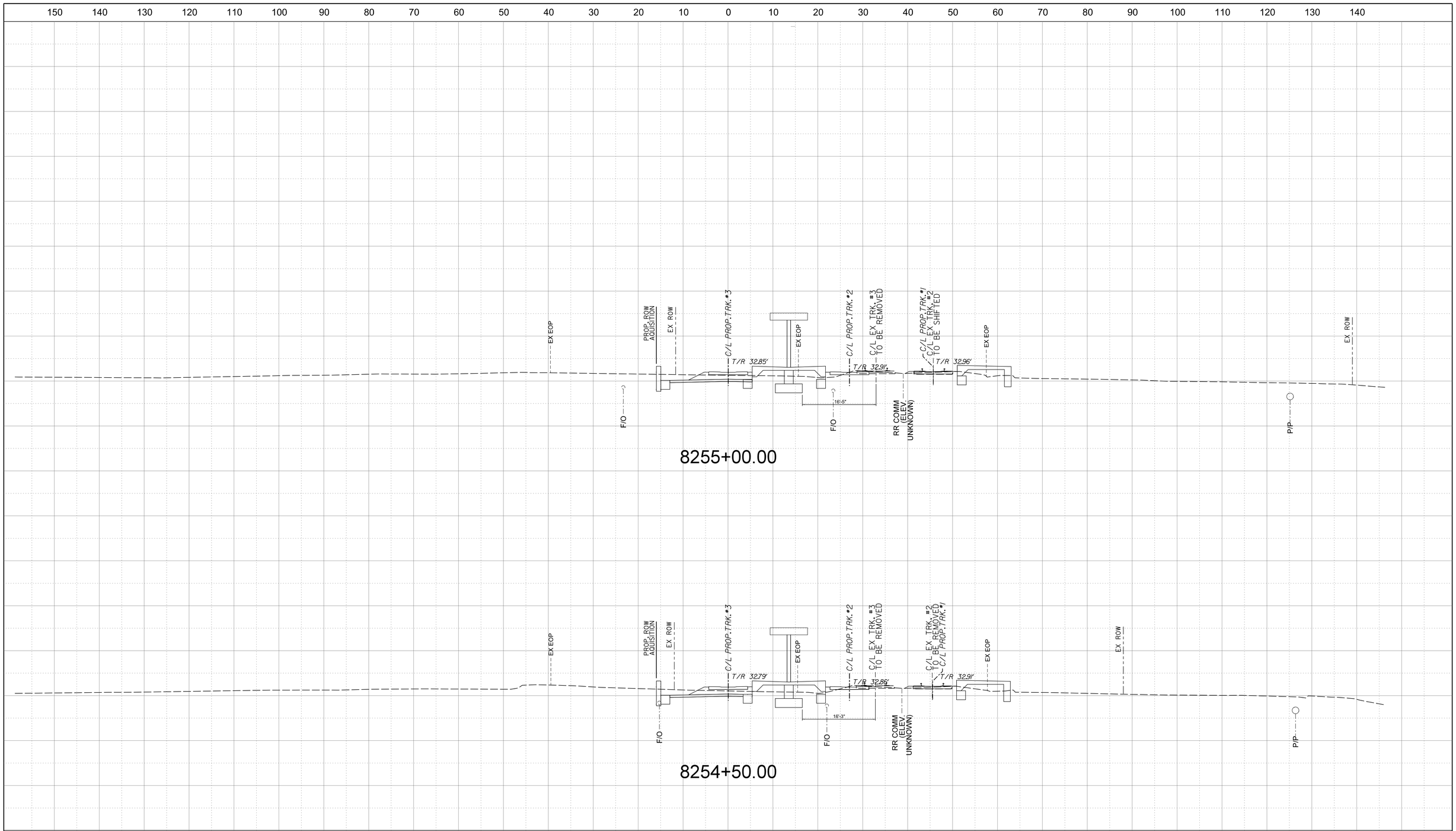
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8253+50.00
TO
STA. 8254+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-020
SCALE: 1" = 10'
SHEET NO: 181 OF 202

$$FILESS
$$DATESS
$$TIMESS



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
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Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

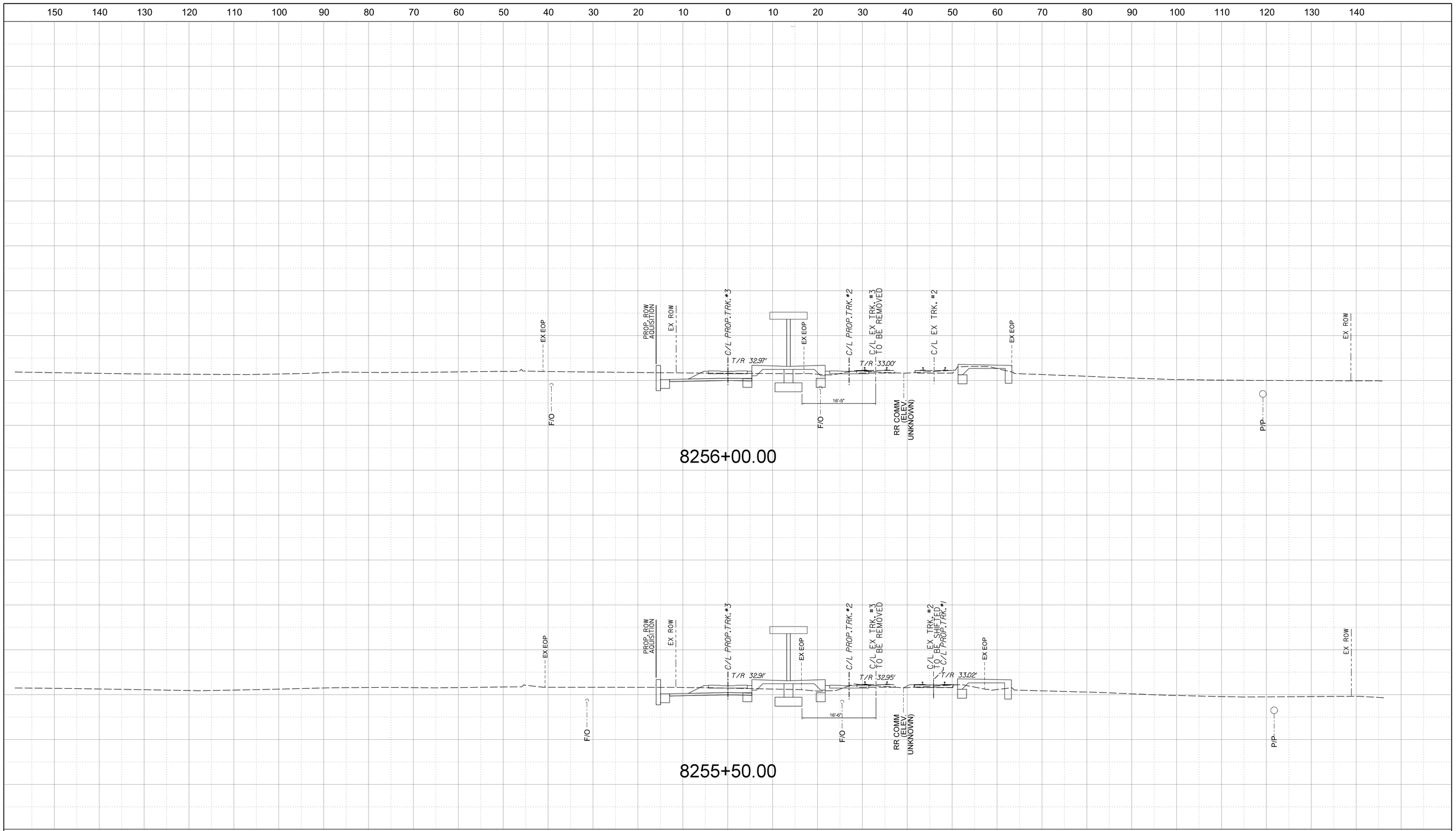
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8254+50.00
TO
STA. 8255+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-021
SCALE: 1" = 10'
SHEET NO: 182 OF 202

$$FILESS
$$DATESS
$$TIMESS



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

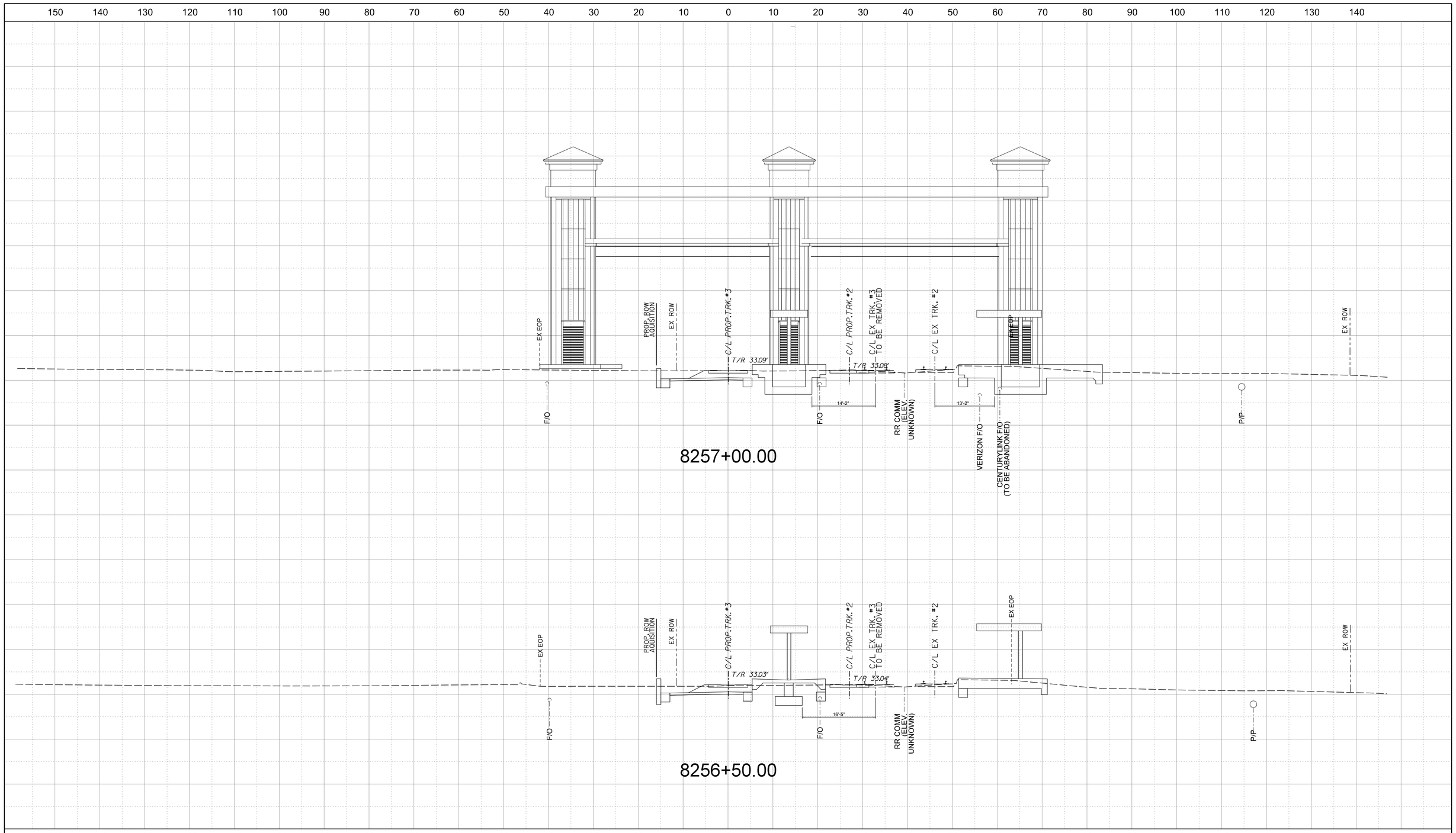
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8255+50.00
TO
STA. 8256+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-022
SCALE: 1" = 10'
SHEET NO: 183 OF 202

$$FILESS
$$DATESS
$$TIMESS



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
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	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
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CHECKED BY: RCB
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COMMONWEALTH OF VIRGINIA
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PROFESSIONAL ENGINEER

VRE

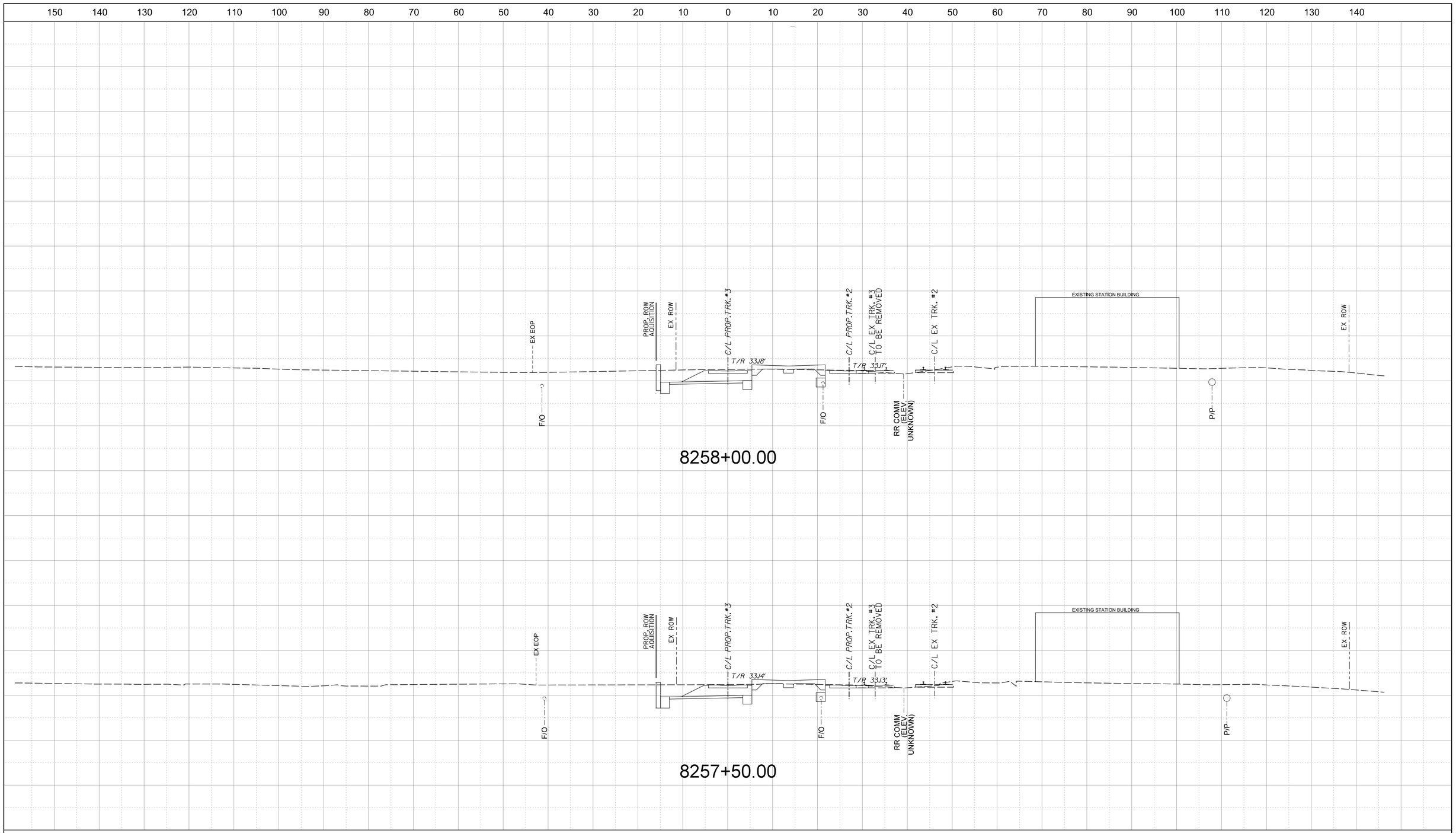
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8256+50.00
TO
STA. 8257+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-023
SCALE: 1" = 10'
SHEET NO: 184 OF 202

$$FILE$$
$$DATE$$
$$TIME$$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

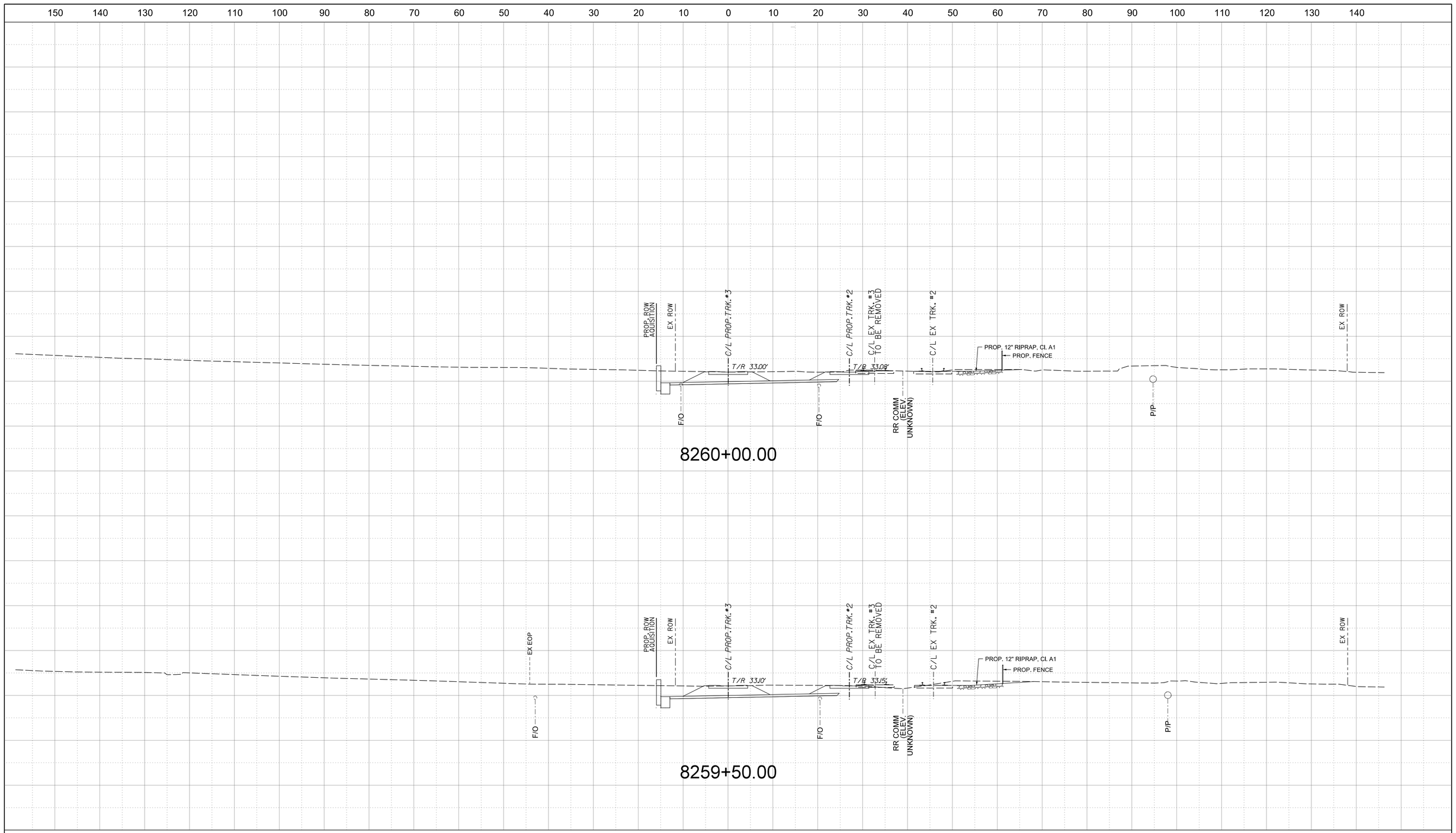
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8257+50.00
TO
STA. 8258+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-024
SCALE: 1" = 10'
SHEET NO: 185 OF 202

$$FILES$
$$DATES$
$$TIMES$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
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2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
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06-10-2020
PROFESSIONAL ENGINEER

VRE

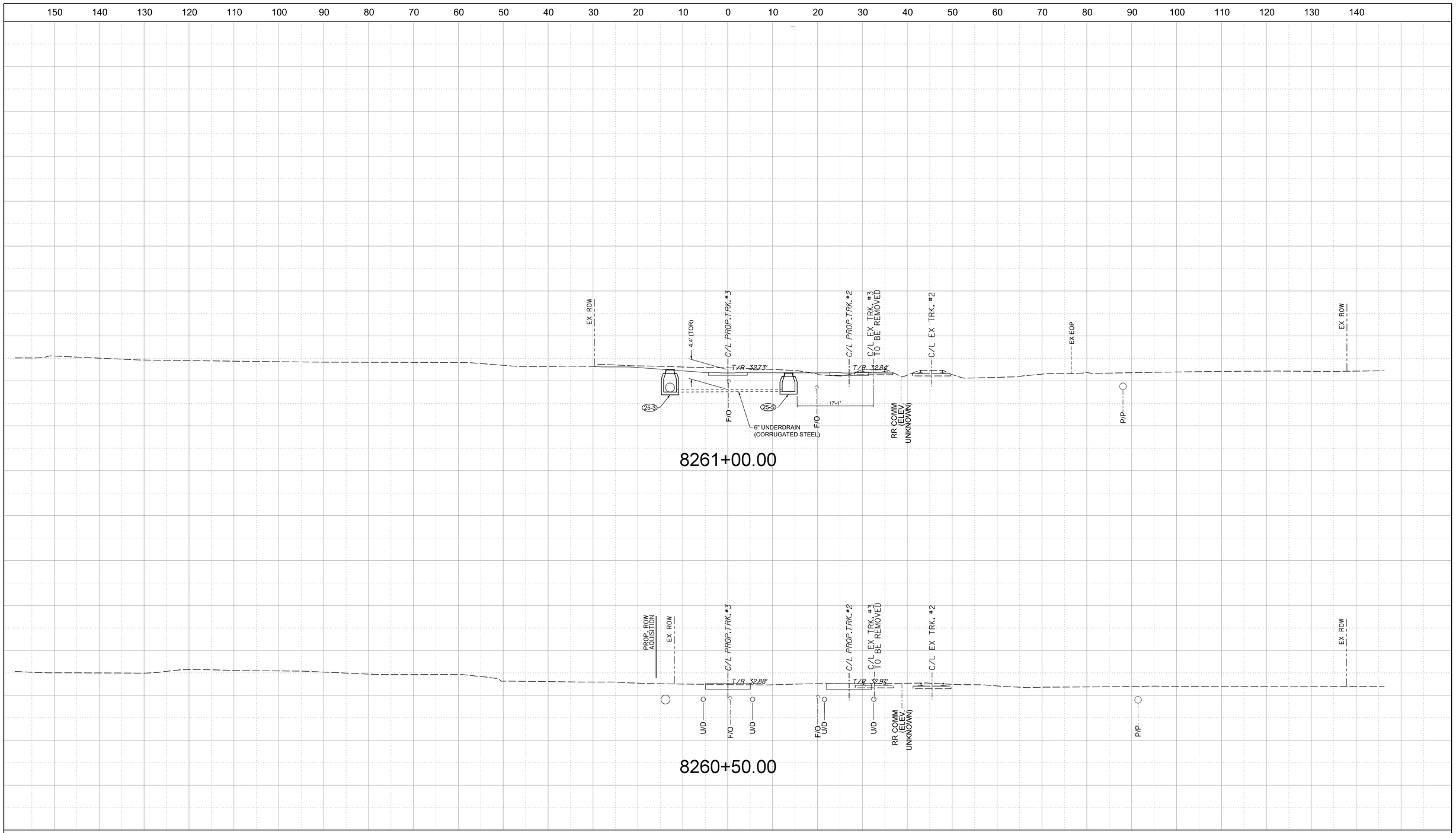
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8259+50.00
TO
STA. 8260+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-026
SCALE: 1" = 10'
SHEET NO: 186 OF 202

$$FILES$
$$DATES$
$$TIMES$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
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2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE

APPROVED BY COUNTY

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	06/10/20			INVITATION FOR BID

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

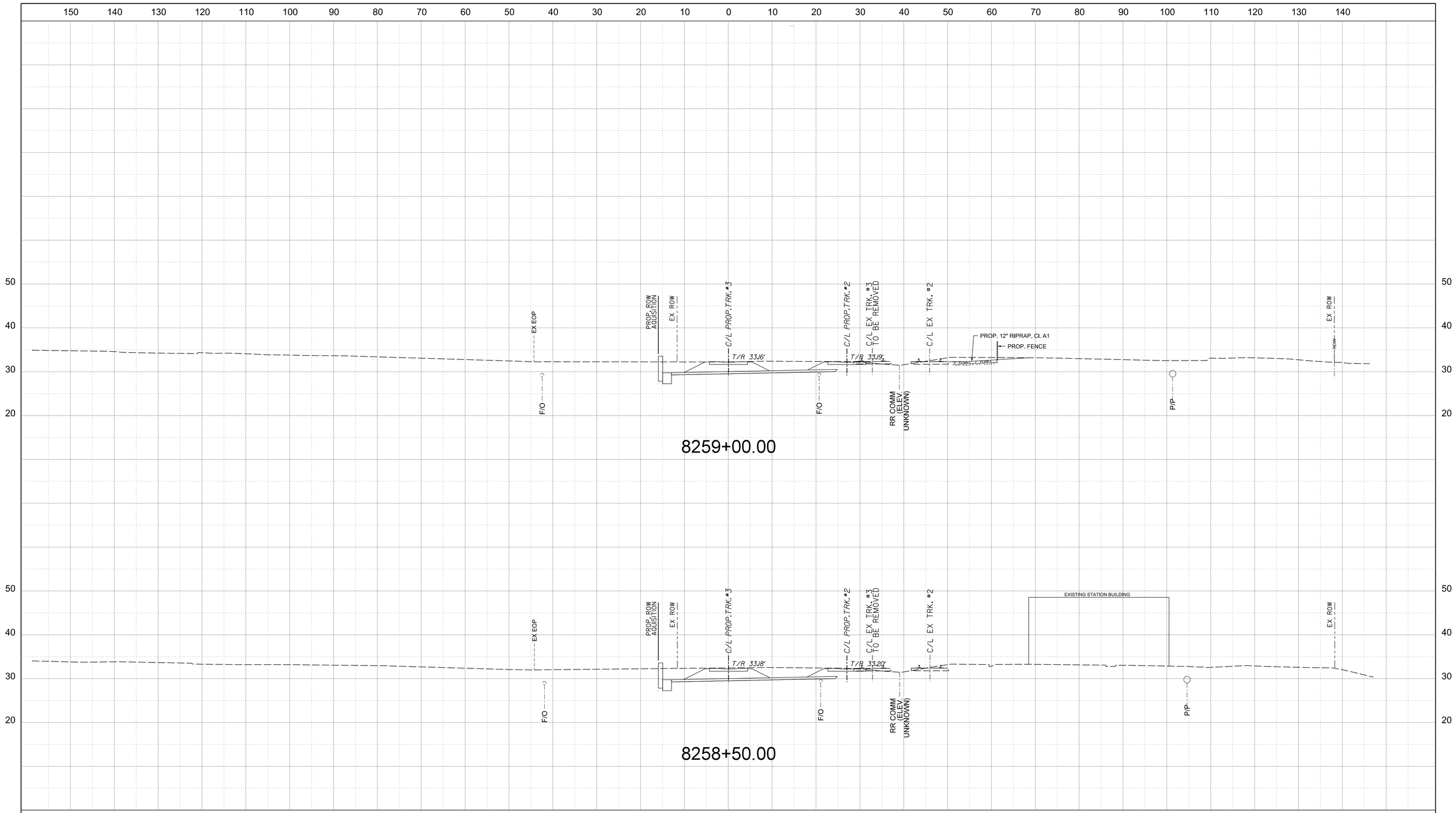
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8260+50.00
TO
STA. 8261+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-027
SCALE: 1" = 10'
SHEET NO: 187 OF 202

$$FILE$$
$$DATE$$
$$TIME$$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

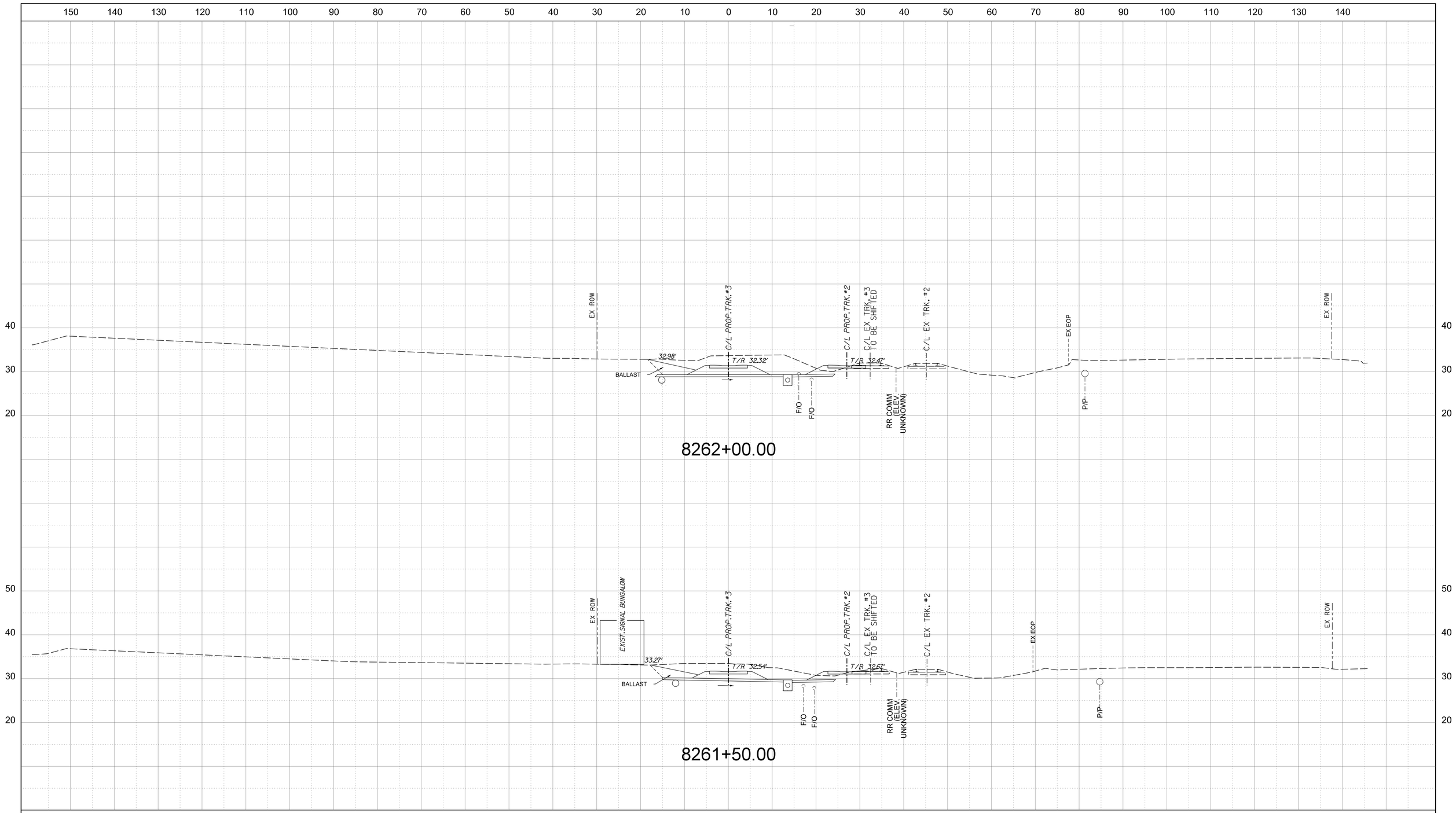
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8258+50.00
TO
STA. 8259+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-025
SCALE: 1" = 10'
SHEET NO: 188 OF 202

$$FILESS
$$DATESS
$$TIMESS



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

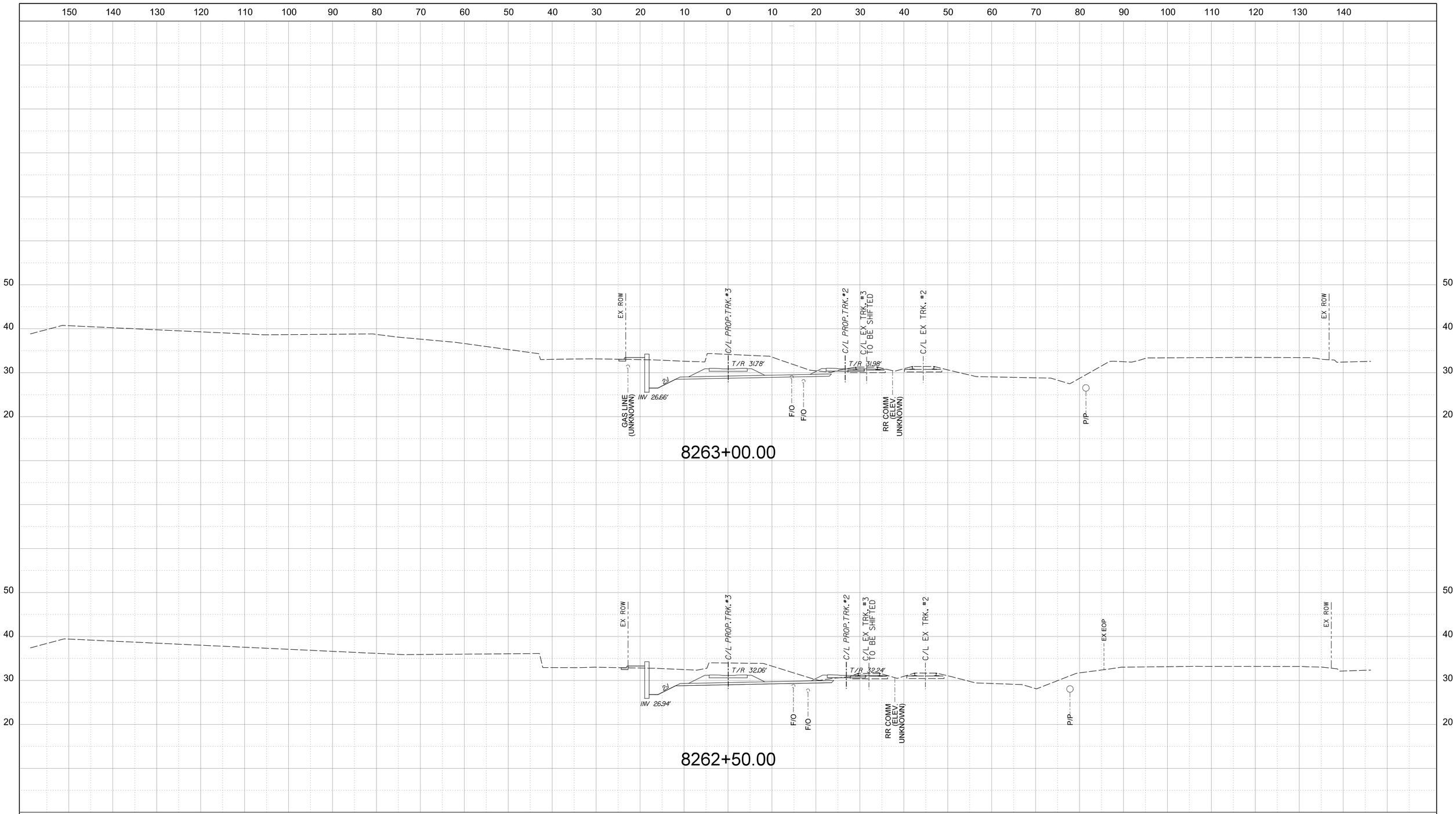
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8261+50.00
TO
STA. 8262+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-028
SCALE: 1" = 10'
SHEET NO: 189 OF 202

$$FILESS
$$DATESS
$$TIMESS



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

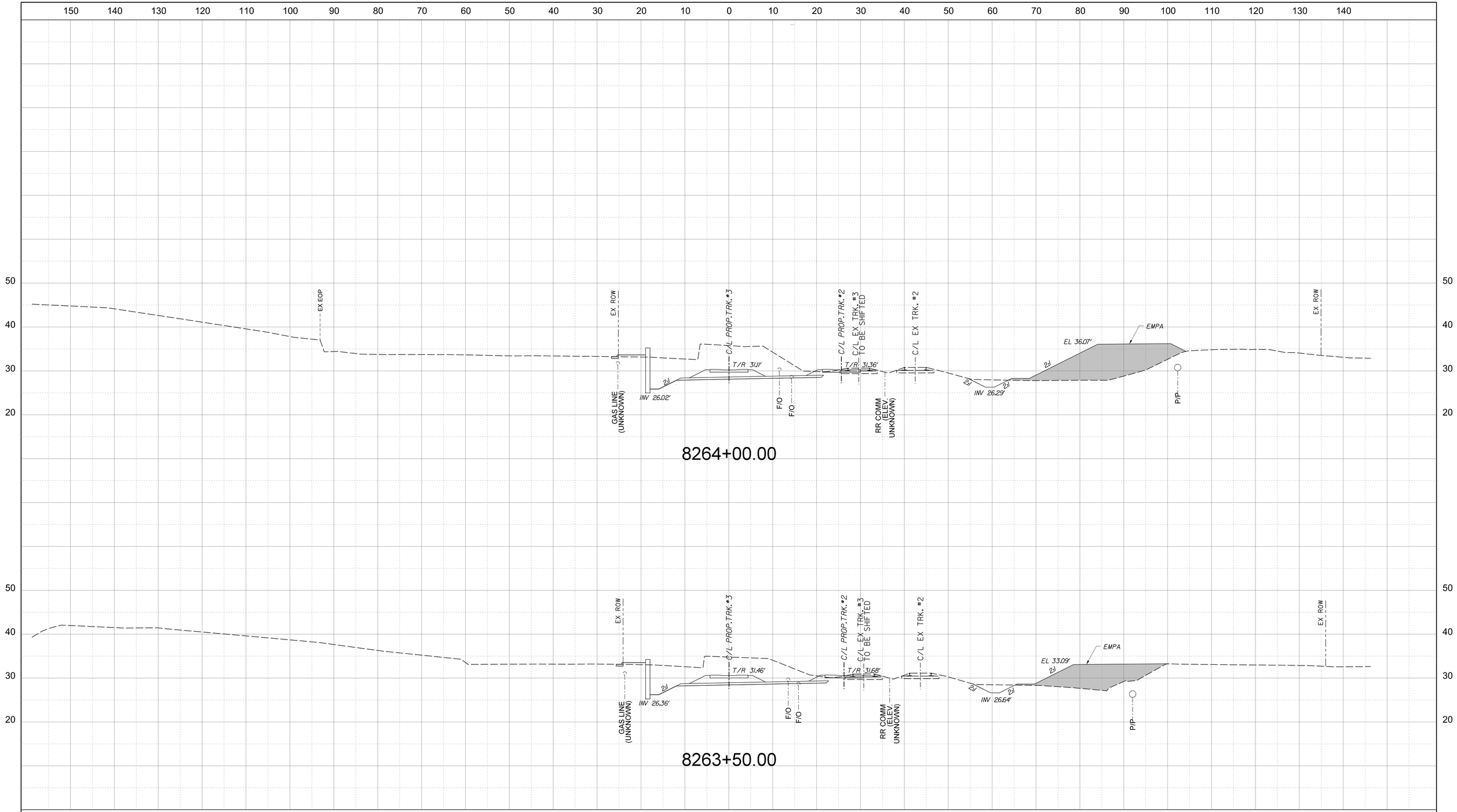
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8262+50.00
TO
STA. 8263+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-029
SCALE: 1" = 10'
SHEET NO: 190 OF 202

$$FILES$
$$DATES$
$$TIMES$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

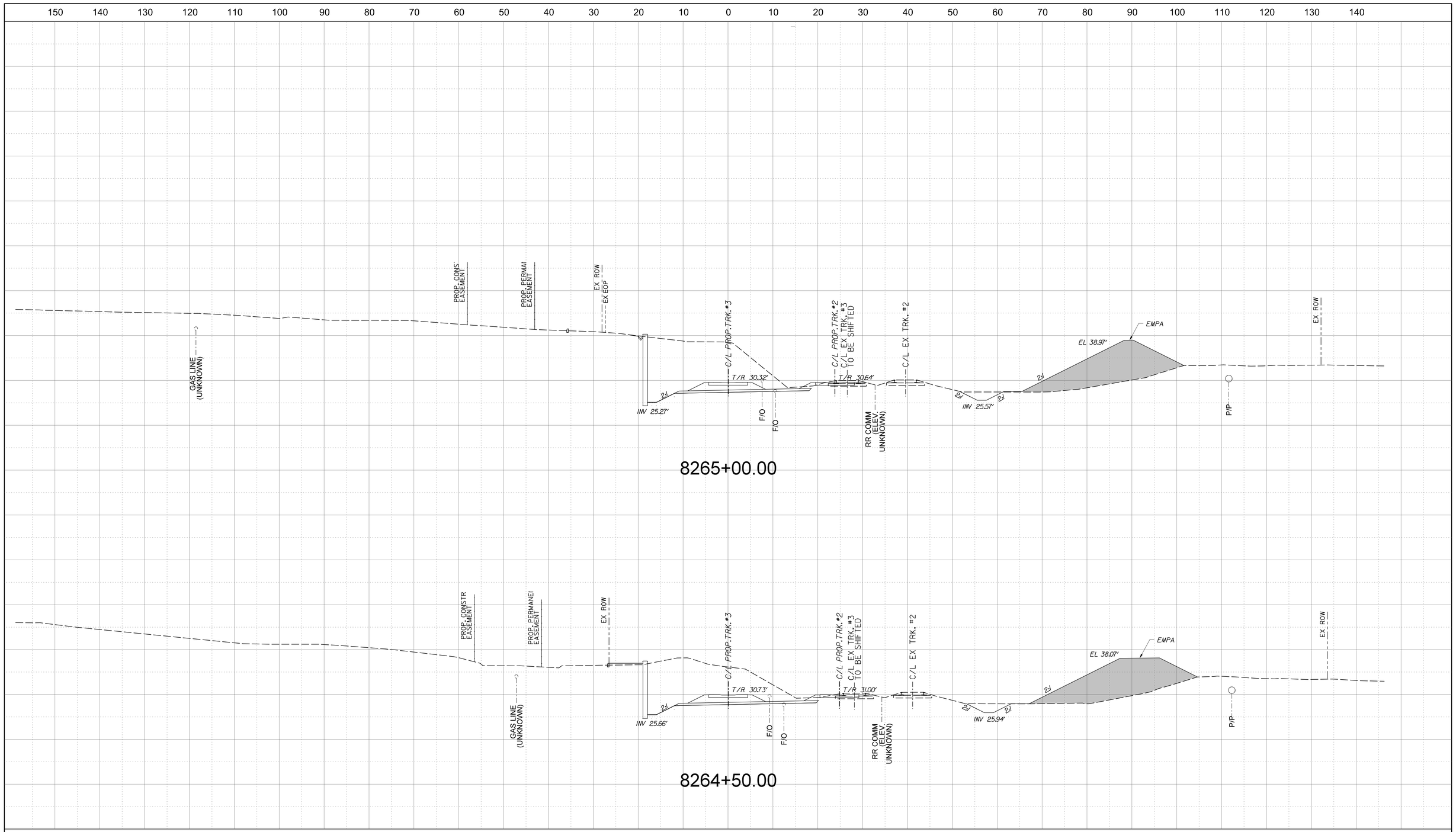
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8263+50.00
TO
STA. 8264+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-030
SCALE: 1" = 10'
SHEET NO: 191 OF 202

$$FILES$
$$DATES$
$$TIMES$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

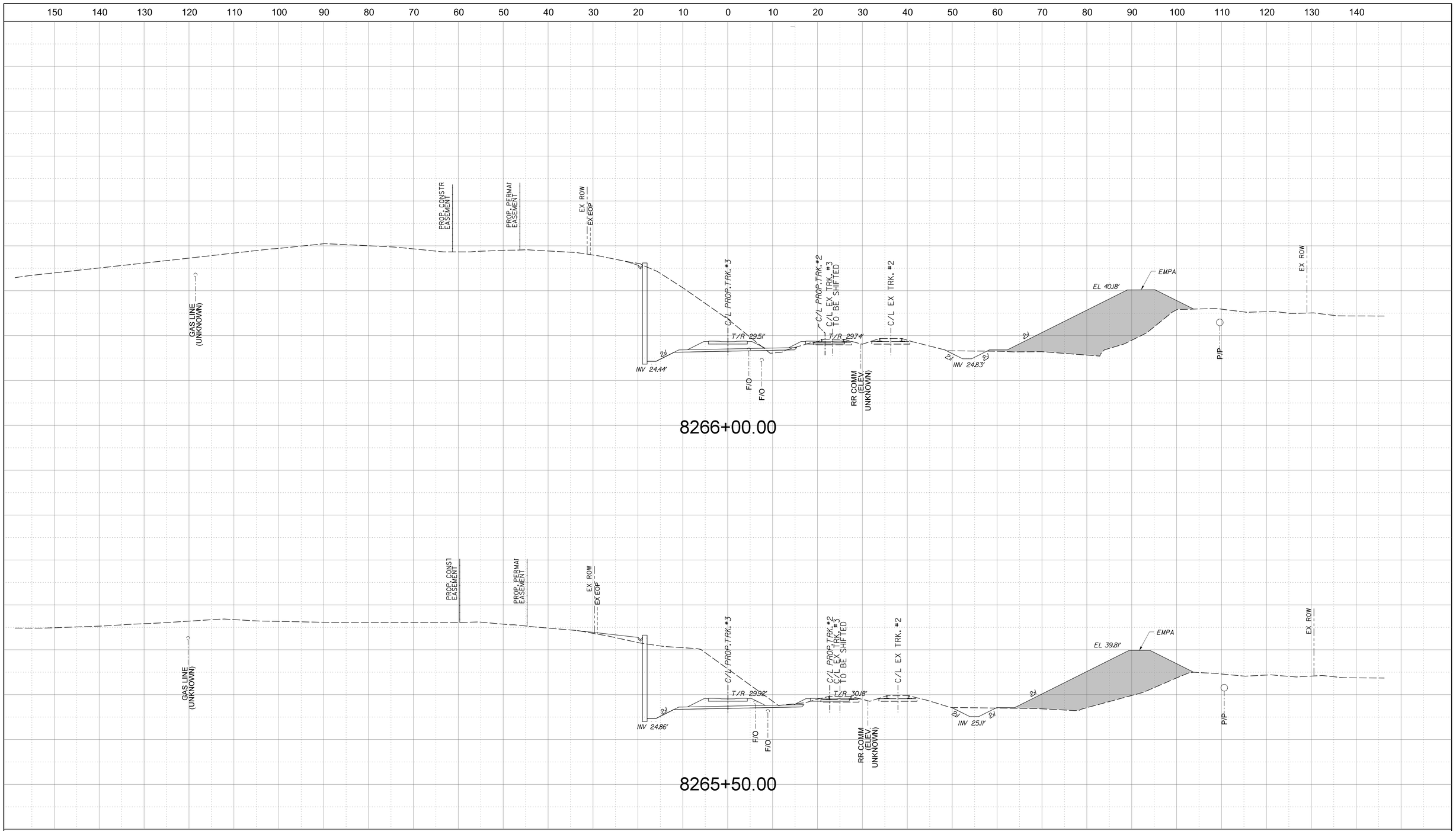
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8264+50.00
TO
STA. 8265+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-031
SCALE: 1" = 10'
SHEET NO: 192 OF 202

$$FILE$$
$$DATE$$
$$TIME$$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

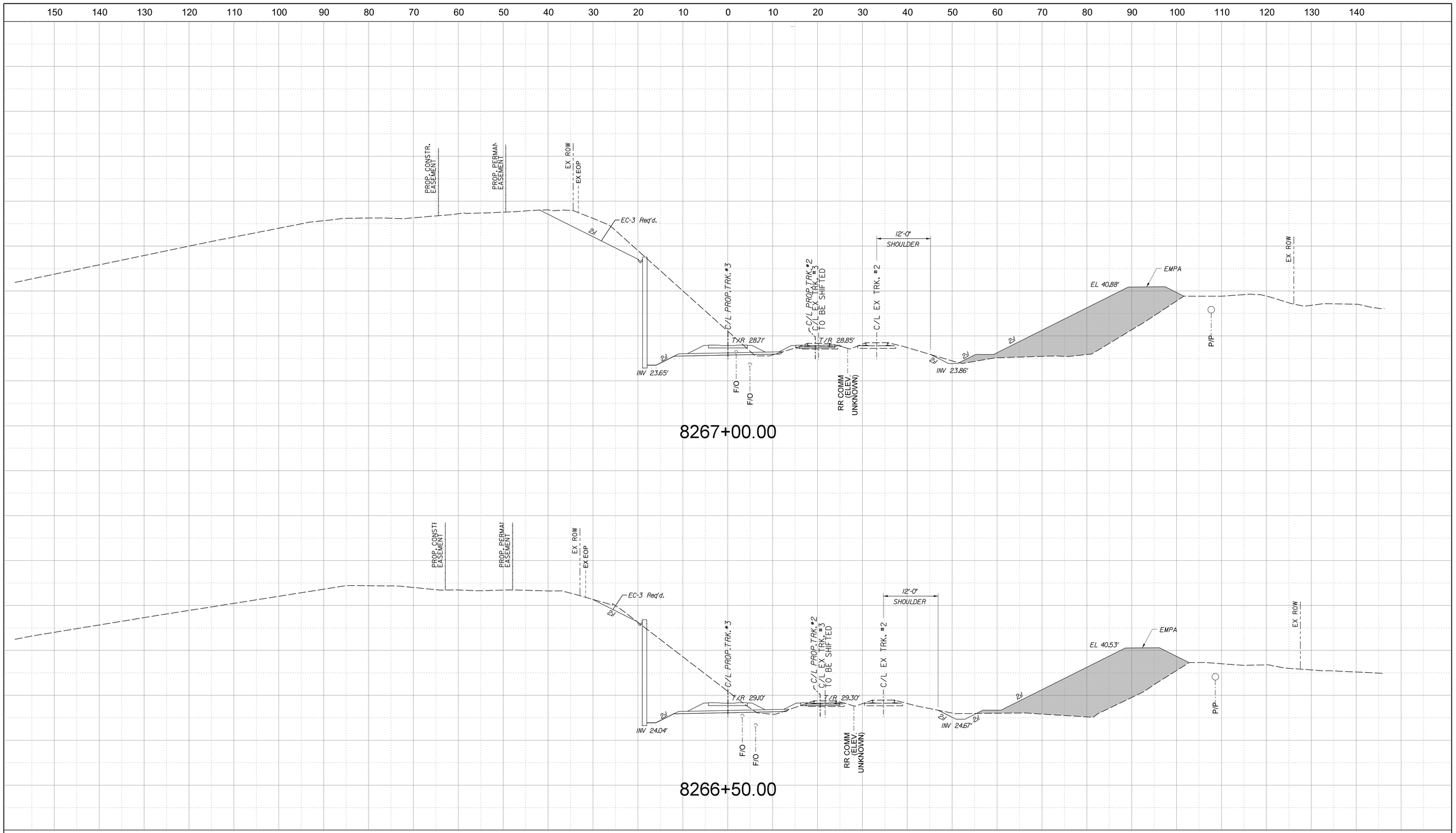
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8265+50.00
TO
STA. 8266+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-032
SCALE: 1" = 10'
SHEET NO: 193 OF 202

$$FILES$
$$DATES$
$$TIMES$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

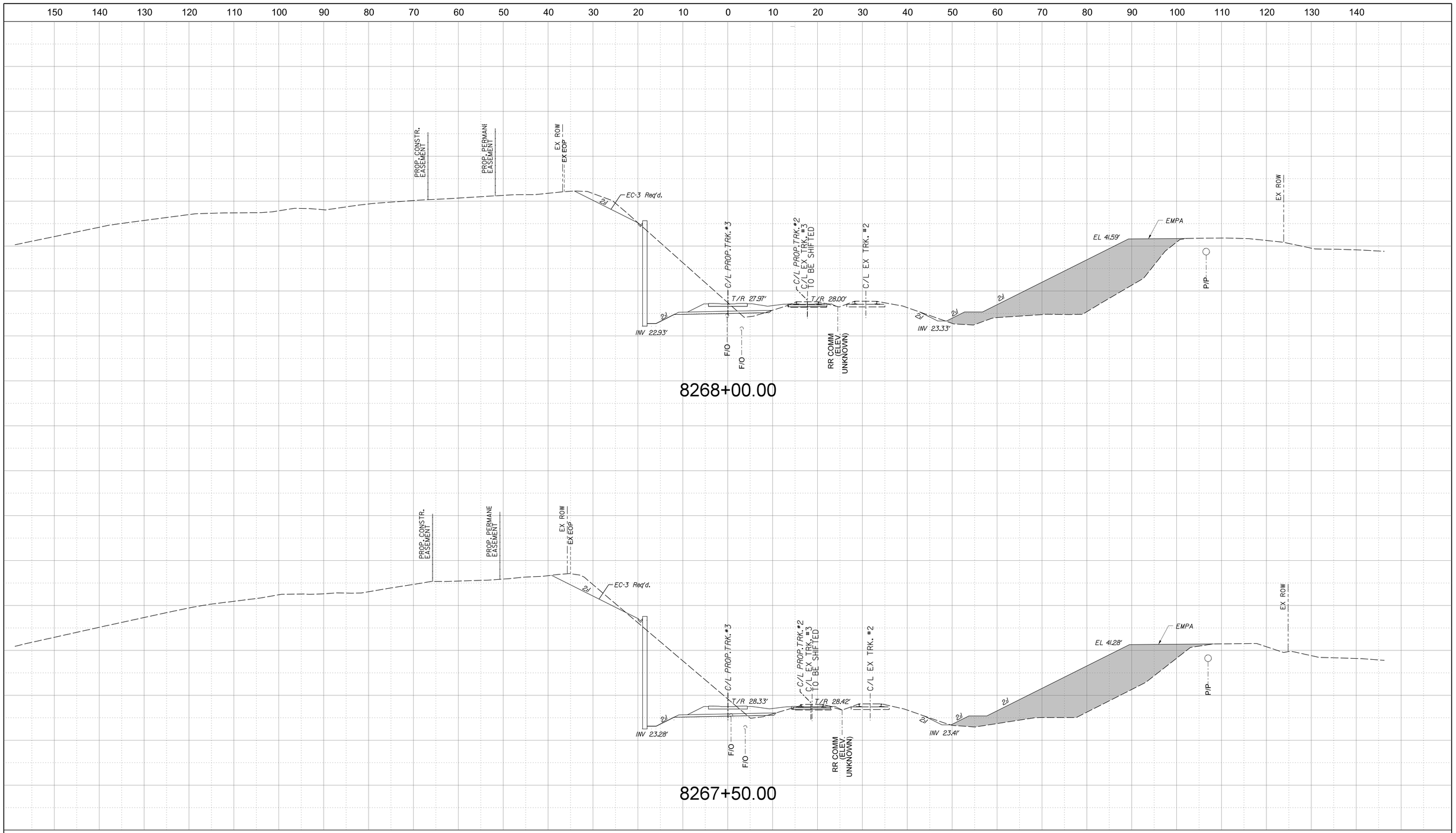
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8266+50.00
TO
STA. 8267+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-033
SCALE: 1" = 10'
SHEET NO: 194 OF 202

$$FILES$
$$DATES$
$$TIMES$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
2. PROPOSED RELOCATED PLANTATION PIPELINE IS 30FT BELOW GRADE.

APPROVED BY VRE

APPROVED BY COUNTY

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	06/10/20			INVITATION FOR BID

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

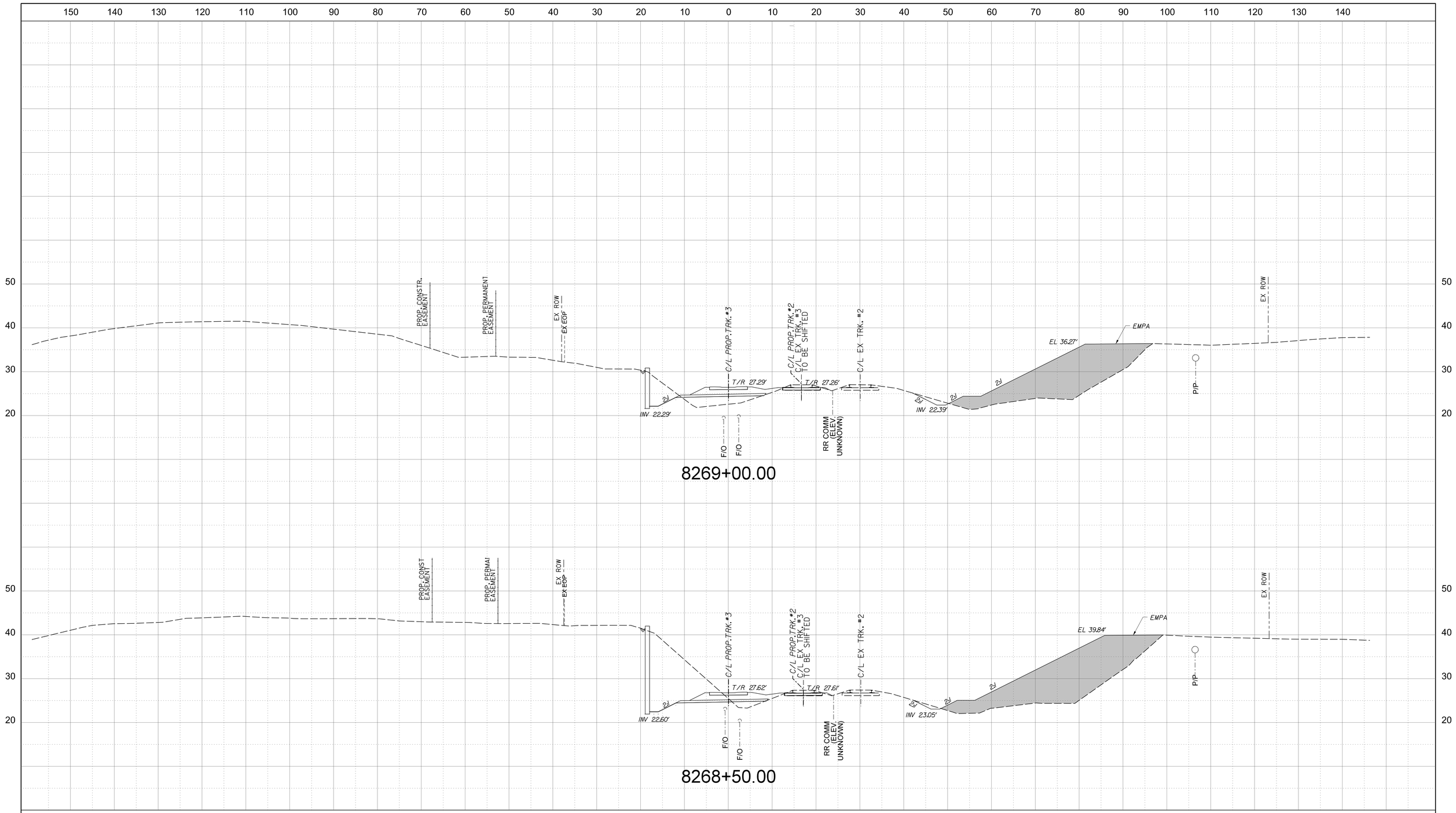
STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

STA. 8267+50.00
TO
STA. 8268+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-034
SCALE: 1" = 10'
SHEET NO: 195 OF 202

$$FILES$
$$DATES$
$$TIMES$



INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
1. ALL UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY UTILITY BEFORE CONSTRUCTION.
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APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

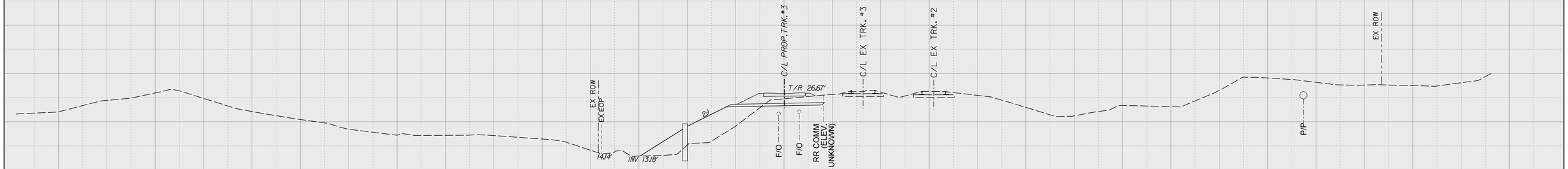
QUANTICO STATION

STA. 8268+50.00
TO
STA. 8269+00.00

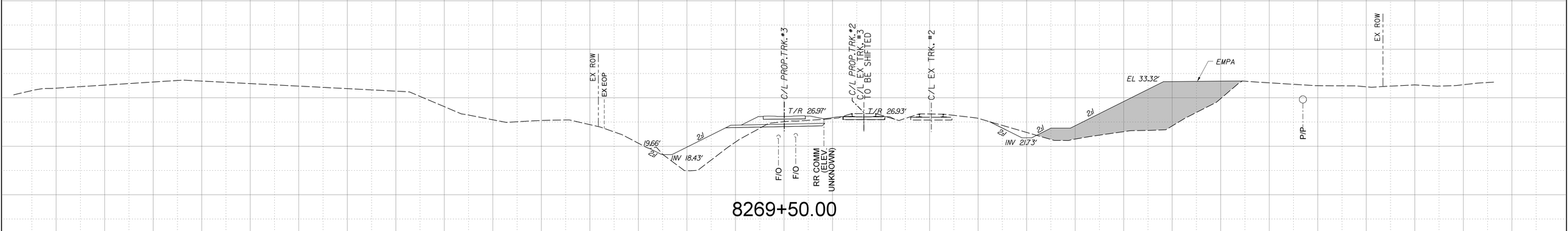
IFB NO: IFB-020-019
DRAWING NO: XS-035
SCALE: 1" = 10'
SHEET NO: 196 OF 202

$$FILES$
$$DATES$
$$TIMES$

NO CHANGE FROM DESIGN/BUILD
PLANS PACKAGE 4



8270+00.00



8269+50.00

INVITATION FOR BID
NOT FOR CONSTRUCTION

NOTE:
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APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION
	0	06/10/20			INVITATION FOR BID
APPROVED BY COUNTY					

DESIGNED BY: KRJ
DRAWN BY: KRJ
CHECKED BY: RCB
DATE: 06/10/2020

COMMONWEALTH OF VIRGINIA
RONALD C. BRIGGS
Lic. No. 011415
06-10-2020
PROFESSIONAL ENGINEER

VRE

STV 100 Years
STV Incorporated
2701 Prosperity Avenue, Suite 305
Fairfax, Virginia 22031

QUANTICO STATION

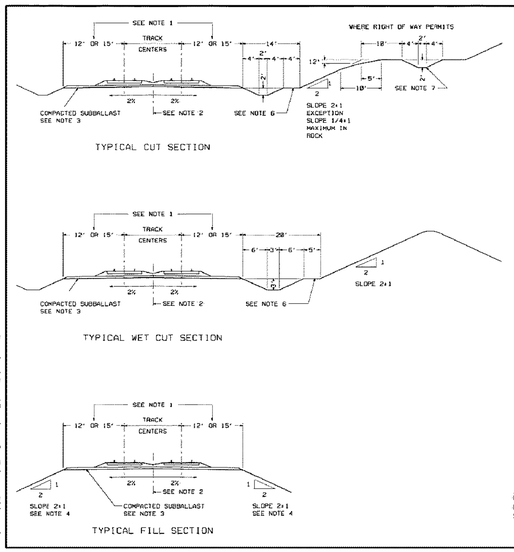
STA. 8269+50.00
TO
STA. 8270+00.00

IFB NO: IFB-020-019
DRAWING NO: XS-036
SCALE: 1" = 10'
SHEET NO: 197 OF 202

$$FILESS
$$DATESS
$$TIMESS

Diagram: Roadbed Sections (2601)

2601



NOTES:

1. ROADBED WIDTHS AT TOP OF SUBGRADE:
   A. SINGLE MAIN TRACKS, SIDINGS, AND HEAVY TONNAGE TRACKS. 15'-0" FROM CENTERLINE OF TRACK, 30'-0" TOTAL
   B. SINGLE YARD, INDUSTRY, AND OTHER TRACK: 12'-0" FROM CENTERLINE OF TRACK, 24'-0" TOTAL
   C. MULTIPLE PARALLEL TRACKS, 12'-0" OR 15'-0" FROM CENTERLINE OF TRACK DEPENDING ON THE TYPE OF TRACKS PLUS DISTANCE BETWEEN TRACK CENTERLINES.
2. LOCATION OF GRADE POINT:
   A. SINGLE MAIN OR OTHER TRACK IS THE CENTERLINE OF TRACK.
   B. DOUBLE MAIN TRACKS IS THE CENTERLINE BETWEEN TRACKS.
   C. GRADE POINT FOR MAIN TRACK AND SIDING IS CENTERLINE OF MAIN TRACK.
3. DEPTH OF SUBBALLAST:
   A. SUBBALLAST ON MAIN TRACKS, SIDINGS AND HEAVY TONNAGE TRACKS IS 6" OVER THE 30' ROADBED WIDTH.
   B. SUBBALLAST ON YARD, INDUSTRIAL AND OTHER TRACKS IS 4" OVER THE 24' ROADBED WIDTH.
4. THE STANDARD SLOPE ON FILL SECTIONS MAY BE INCREASED TO A MAXIMUM OF 1 :1(1) AT LOCATIONS WHERE THE BEARING CAPACITY OF THE NATURAL BED HAS BEEN VERIFIED BY FIELD TESTS AND THE STABILITY OF THE FILL MATERIAL VERIFIED BY LABORATORY TESTS.
5. INSTRUCTIONS FOR THE USE AND INSTALLATION OF GEOTEXTILES AND GEOGRIDS ARE INCLUDED IN MW1-1003.
6. OMIT BENCH WHERE EXCAVATION IS 5 FEET OR LESS.
7. OMIT BERM DITCH WHEN NATURAL GROUND SLOPES AWAY FROM THE EXCAVATION.

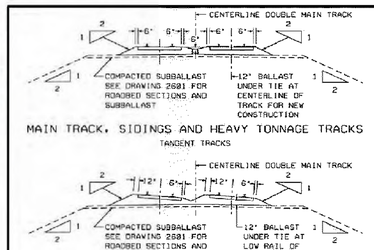
CSX TRANSPORTATION

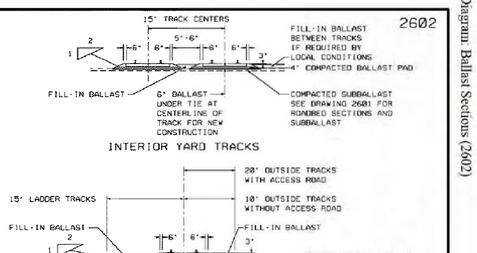
ROADBED SECTIONS

REVIEWED - DIRECTOR, STANDARDS AND TESTING	APPROVED - ASSISTANT VICE PRESIDENT, EQUIPMENT AND TRACK SYSTEMS ENGINEERING
ISSUED: JANUARY 27, 1997	REVISED: INITIAL ISSUE

Diagram: Ballast Sections (2602)

2602





NOTES:

1. BALLAST TO CONFORM TO THE CURRENT CSXT SPECIFICATION FOR BALLAST.
2. AREMA GRADATION 4A BALLAST IS TO BE USED ON ALL TRACK EXCEPT YARD TRACKS WHERE AREMA GRADATION 5 IS TO BE USED.
3. BALLAST PAD 4" THICK OF AREMA GRADATION 4A WILL BE USED UNDER TRACK FOR NEW CONSTRUCTION OF YARD TRACKS.
4. FILL-IN BALLAST WILL BE AREMA GRADATION 5.
5. BALLAST TO BE EVEN WITH TOP OF TIE.
6. BALLAST SHOULDER WILL EXTEND 6" FROM END OF TIE TO EDGE OF SLOPE ON TANGENTS AND THE INSIDE OF CURVES, AND 12" ON THE OUTSIDE OF CURVES. THE 12" WIDTH IS TO EXTEND ONTO THE TANGENT AT EACH END OF THE CURVE FOR 100 FEET AND THEN TAPERED IN TO 6" IN THE NEXT 50 FEET.

CSX TRANSPORTATION

BALLAST SECTIONS

APPROVED - CHIEF ENGINEER MAINTENANCE OF WAY	APPROVED - VICE PRESIDENT ENGINEERING
PREPARED BY: J. E. REYERL	ISSUED: JANUARY 27, 1997 REVISED: JANUARY 23, 2006

Diagram: Clearance Diagrams (2604)

2604

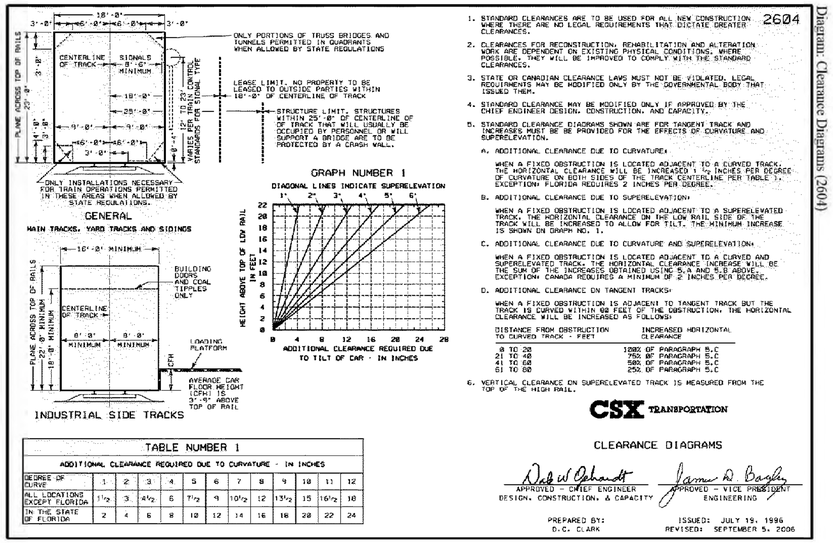


TABLE NUMBER 1 ADDITIONAL CLEARANCE REQUIRED DUE TO CURVATURE - IN INCHES												
DEGREE OF CURVE	1	2	3	4	5	6	7	8	9	10	11	12
ALL LOCATIONS EXCEPT FLORIDA	1½	3	4½	6	7½	9	10½	12	13½	15	16½	18
IN THE STATE OF FLORIDA	2	4	6	8	10	12	14	16	18	20	22	24

1. STANDARD CLEARANCES ARE TO BE USED FOR ALL NEW CONSTRUCTION WHERE THERE ARE NO LEGAL REQUIREMENTS THAT DICTATE GREATER CLEARANCES.
2. CLEARANCES FOR RECONSTRUCTION, REHABILITATION AND ALTERATION WORK ARE DEPENDENT ON EXISTING PHYSICAL CONDITIONS. WHERE POSSIBLE, THEY WILL BE IMPROVED TO COMPLY WITH THE STANDARD CLEARANCES.
3. STATE OR CANADIAN CLEARANCE LAWS MUST NOT BE VIOLATED. LEGAL REQUIREMENTS MAY BE MODIFIED ONLY BY THE GOVERNMENTAL BODY THAT ISSUED THEM.
4. STANDARD CLEARANCE MAY BE MODIFIED ONLY IF APPROVED BY THE CHIEF ENGINEER DESIGN, CONSTRUCTION, AND CAPACITY.
5. STANDARD CLEARANCE DIAGRAMS SHOWN ARE FOR TANGENT TRACK AND INCREASES MUST BE PROVIDED FOR THE EFFECTS OF CURVATURE AND SUPERELEVATION.
   A. ADDITIONAL CLEARANCE DUE TO CURVATURE:
      WHEN A FIXED OBSTRUCTION IS LOCATED ADJACENT TO A CURVED TRACK, THE HORIZONTAL CLEARANCE WILL BE INCREASED 1 ½ INCHES PER DEGREE OF CURVATURE ON BOTH SIDES OF THE TRACK CENTERLINE PER TABLE 1. EXCEPTION: FLORIDA REQUIRES 2 INCHES PER DEGREE.
   B. ADDITIONAL CLEARANCE DUE TO SUPERELEVATION:
      WHEN A FIXED OBSTRUCTION IS LOCATED ADJACENT TO A SUPERELEVATED TRACK, THE HORIZONTAL CLEARANCE ON THE LOW RAIL SIDE OF THE TRACK WILL BE INCREASED TO ALLOW FOR TILT. THE MINIMUM INCREASE IS SHOWN ON GRAPH NO. 1.
   C. ADDITIONAL CLEARANCE DUE TO CURVATURE AND SUPERELEVATION:
      WHEN A FIXED OBSTRUCTION IS LOCATED ADJACENT TO A CURVED AND SUPERELEVATED TRACK, THE HORIZONTAL CLEARANCE INCREASE WILL BE THE SUM OF THE INCREASES OBTAINED USING 5.A AND 5.B ABOVE. EXCEPTION: CANADA REQUIRES A MINIMUM OF 2 INCHES PER DEGREE.
   D. ADDITIONAL CLEARANCE ON TANGENT TRACKS:
      WHEN A FIXED OBSTRUCTION IS ADJACENT TO TANGENT TRACK BUT THE TRACK IS CURVED WITHIN 88 FEET OF THE OBSTRUCTION, THE HORIZONTAL CLEARANCE WILL BE INCREASED AS FOLLOWS:

DISTANCE FROM OBSTRUCTION TO CURVED TRACK - FEET	INCREASED HORIZONTAL CLEARANCE
0 TO 20	100% OF PARAGRAPH 5.C
21 TO 40	75% OF PARAGRAPH 5.C
41 TO 60	50% OF PARAGRAPH 5.C
61 TO 88	25% OF PARAGRAPH 5.C

6. VERTICAL CLEARANCE ON SUPERELEVATED TRACK IS MEASURED FROM THE TOP OF THE HIGH RAIL.

CSX TRANSPORTATION

CLEARANCE DIAGRAMS

APPROVED - CHIEF ENGINEER DESIGN, CONSTRUCTION, & CAPACITY	APPROVED - VICE PRESIDENT ENGINEERING
PREPARED BY: D.C. CLARK	ISSUED: JULY 19, 1996 REVISED: SEPTEMBER 5, 2006

Diagram: Standard Clearance Matrix (2605)

2605

DIMENSIONS - NOTES:
ARE SHOWN IN FEET AND INCHES (FT-IN).
ARE FOR TANGENT TRACK. SEE CSX 2604 FOR INCREASE DUE TO CURVATURE.
VERTICAL CLEARANCE IS MEASURED FROM TOP OF HIGH RAIL FOR THE ENTIRE FULL HORIZONTAL WIDTH DESCRIBED BELOW.
HORIZONTAL CLEARANCE IS MEASURED FROM CENTERLINE OF NEAR TRACK.
APPLY TO ALL NEW CONSTRUCTION, RECONSTRUCTION AND ALTERATIONS
ALL COLUMNS ARE MINIMUM EXCEPT COLUMNS 22, 24, 27, AND 29 WHICH ARE MAXIMUM
CFH - CAR FLOOR HEIGHT.
REFERENCE CHAPTER 28 OF AREMA MANUAL FOR RAILWAY ENGINEERING FOR ENTIRE DETAILS OF STATE LEGAL CLEARANCES

TRACK CENTERS									VERTICAL				HORIZONTAL					
MAIN TRACKS	ANY TWO NON-MAIN ADJACENT	NON-MAIN TRACK TO ANY MAIN TRACK	NON-MAIN TRACK TO ANY PARALLEL TRACK	LADDER TRACKS OUTSIDE TRACKS	TEAM TRACKS IN PAIRS	UNLOADING TRACKS AT PLATFORMS	MAIN TRACK AND SIDING TO UNLOADING TRACK	GENERAL (UNLESS PROVIDED FOR)	THRU BRIDGES	MIDWAY BRIDGE (SPANNING TRACKS)	TUNNELS	BUILDING DOORS	IN BUILDINGS	GENERAL (UNLESS PROVIDED FOR)	THRU BRIDGES	MIDWAY BRIDGE (SPANNING TRACKS)	TUNNELS	BUILDING DOORS	IN BUILDINGS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
15-0	14-0	15-0	19-0	19-2	14-0	13-6	13-6	18-0	23-0	23-0	23-0	23-0	18-0	22-0	9-0	9-0	18-0	9-0	8-0	8-0

EXCEPTIONS: COLUMN 6 SHALL BE 17-0 IN MASSACHUSETTS
COLUMN 7 AND 8 SHALL BE 14-8 IN MICHIGAN
COLUMN 14 SHALL BE 21-0 IN OHIO; 22-0 IN INDIANA, WEST VIRGINIA, & CANADA; 22-6 IN CONNECTICUT, MASSACHUSETTS, & MICHIGAN
COLUMN 15 SHALL BE 22-6 IN CONNECTICUT, MASSACHUSETTS, & MICHIGAN; 23-0 IN DELAWARE
COLUMN 16 SHALL BE 12-0 IN PENNSYLVANIA
COLUMN 18 SHALL BE 25-0 IN SOUTH CAROLINA
COLUMN 20 SHALL BE 8-6 IN MASSACHUSETTS AND MICHIGAN
COLUMN 21 SHALL BE 8-6 IN MICHIGAN

HORIZONTAL												
PLATFORMS				SIGNALS								
CENTERLINE OF TRACK / GENERAL; TOP OF RAIL; D, B, A, C					LOW BETWEEN TRACKS		SWITCH BOXES ETC.					
PASSENGER		FREIGHT		HIGH	HEIGHT	CLEARANCE	HEIGHT	CLEARANCE	POLES	ORE AND COAL DOCKS		
A	B	C	D									
22	23	24	25	26	27	28	29	30	31	32		
8'-3	5'-1	CFH	8'-8	8'-6	3'-8	6'-8	0'-4	3'-8	12'-8	8'-8		

EXCEPTIONS: COLUMN 23 SHALL BE 5-2 IN CONNECTICUT
COLUMN 25 SHALL BE 8-6 IN CONNECTICUT, MARYLAND, MICHIGAN, NEW YORK, & PENNSYLVANIA
COLUMN 26 SHALL BE 9-0 IN DELAWARE; 12-0 IN PENNSYLVANIA
COLUMN 27 SHALL BE 4-0 IN CANADA
COLUMN 29 SHALL BE 0-5 IN CANADA
COLUMN 30 SHALL BE 3-10 IN CANADA
COLUMN 32 SHALL BE 8-4½ IN CANADA; 8-6 IN DC, & MARYLAND

CSX TRANSPORTATION

STANDARD CLEARANCE MATRIX

APPROVED - CHIEF ENGINEER DESIGN, CONSTRUCTION, & CAPACITY	APPROVED - VICE PRESIDENT ENGINEERING
PREPARED BY: D.C. CLARK	ISSUED: JULY 19, 1996 REVISED: SEPTEMBER 5, 2006

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DRAWN BY:
CHECKED BY:
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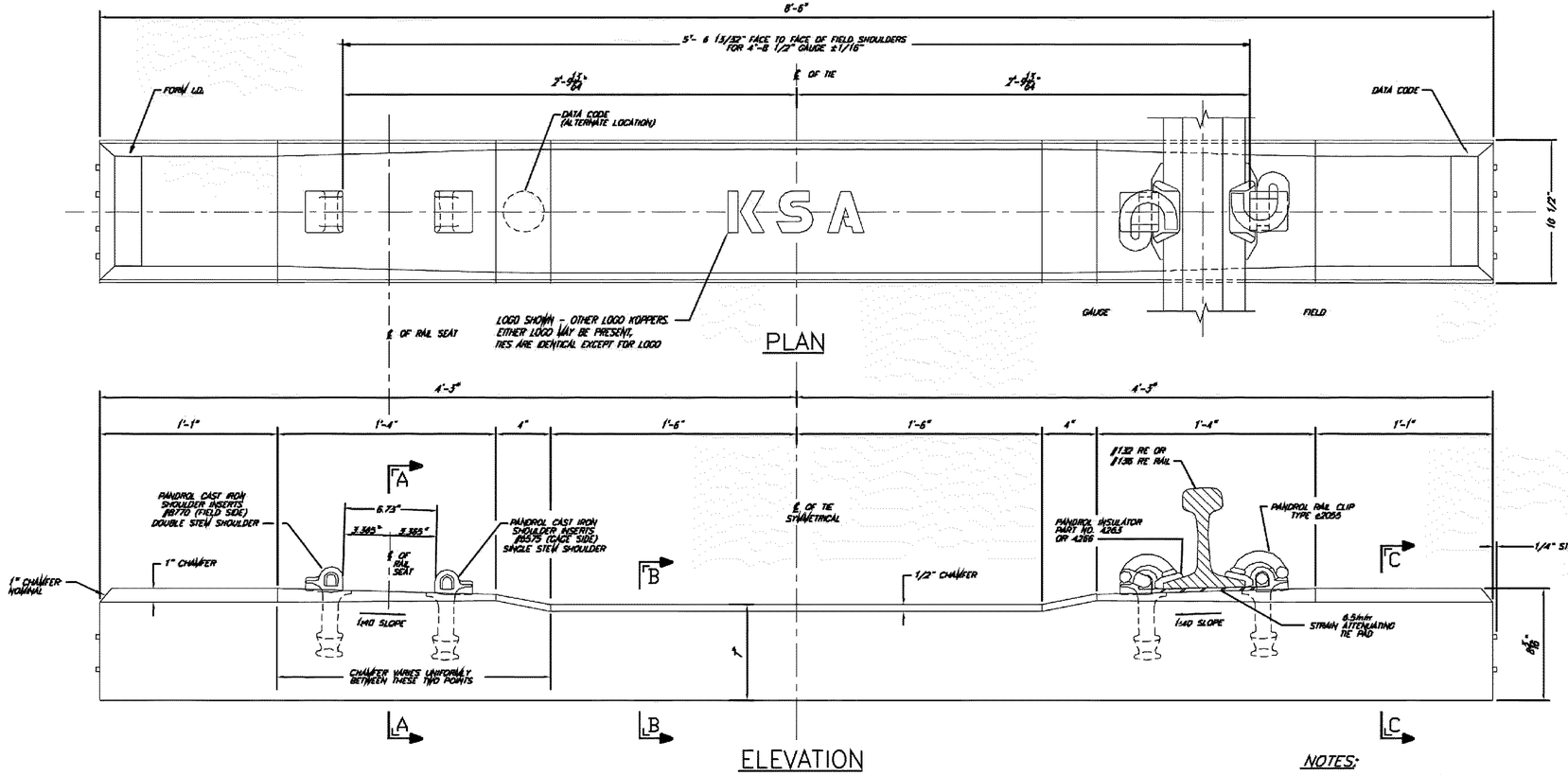
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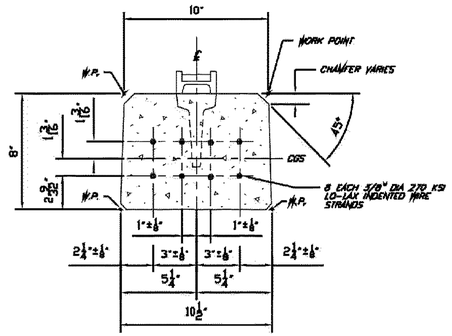
QUANTICO STATION

CSX DETAILS
CROSS SECTION DIAGRAMS

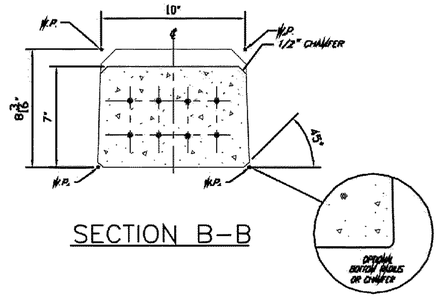
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DRAWING NO: CSX-001
SCALE: AS SHOWN
SHEET NO: 198 OF 202

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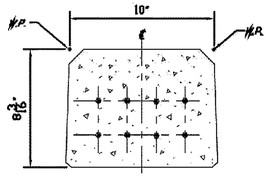




SECTION A–A



SECTION B–B



SECTION C–C

NOTES:

1. TIES TO BE MANUFACTURED IN ACCORDANCE WITH AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTER-30 PART 4.
2. CONCRETE
   - STRENGTH: f'_{ci} = 4000 PSI @ TRANSFER; f'_c = 7000 PSI @ 28 DAYS - NOMINAL
   - SPECIFICATIONS:
     - CEMENT: ASTM C150 LOW ALKALI
     - AGGREGATES: ASTM C-33
     - WATER REDUCING ADMIXTURES: ASTM C494
     - AIR ENTRAINING ADMIXTURES: ASTM C260, 3% TO 6% (WET CONCRETE)
3. CURING
   - HEAT CURE NOT TO EXCEED 140°F
4. PRESTRESSING
   - STRAND 3/8" DIA INDENTED WIRE, GRADE 270K LO-LAX, ASTM A886
   - INITIAL TENSION: 75% ULTIMATE = 17.25 KIPS PER STRAND
5. WEIGHT OF TIE INCLUDING PANDROL SHOULDERS, APPROX. 690#
6. TOLERANCES:
   - LENGTH: ±1/4"
   - WIDTH: ±1/8"
   - HEIGHT: +1/2"-1/8"

PANDROL RAIL FASTENING SYSTEM COMPONENTS:

A) SHOULDER #8770 AND #6575
B) CLIPS e2055
C) INSULATOR 4263 OR 4266
D) PAD 6.5mm EVA STRAIN ATTENUATING TIE PAD

PHILIP J. McOLEEN CORP.	8772	4	ADDED 6575 NOTE TO GAGE SHOULDER	EDH	1/14/88
DRAWING NO. WAS (REVISION 1)	A103723	3	REVISED GAGE DIMENSIONS	EDH	9/21/87
REFERENCE	DWG. NO.	2	REVISED STRAND LOCATION AND DIMENSIONS	EDH	10/11/87
		1	REVISED DATA CODE BLOCK & ADD SHOULDER #6575	W.D.P.	11/5/87
		REVISION	DESCRIPTION	DRAWN BY	DATE

	NAME	DATE
DRAWN BY:	A.M. ALBENIS	2/16/88
CHECKED BY:	H.J. TRAUTMANN	2/17/88
APPROVED BY:	W.D. PILESI	2/17/88

KSA
Portsmouth, OH Birmingham, AL Pittsburgh, PA
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STANDARD
SERIES 1011
PRESTRESSED CONCRETE CROSSTIE
GENERAL LAYOUT & SPECIFICATION
W/PANDROL RAIL FASTENING SYSTEM

B.M. NO.: | SCALE: 3"=1'-0"
DRAWING NO.: 5026-G024 | REVISION: 8

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DATE: 06/10/2020

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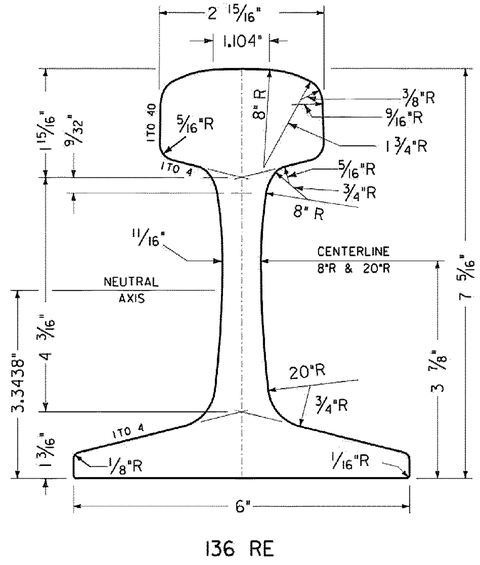
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CSX DETAILS
CONCRETE TIES

IFB NO: IFB-020-019
DRAWING NO: CSX-002
SCALE: AS SHOWN
SHEET NO: 199 OF 202

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$$TIME$$



136 RE

AREA :
HEAD - 4.82 IN.^{2} = 36.3 %
WEB - 3.64 IN.^{2} = 27.1%
BASE - 4.87 IN.^{2} = 36.6 %

RAIL WEIGHT :
135.9 LBS./YD.

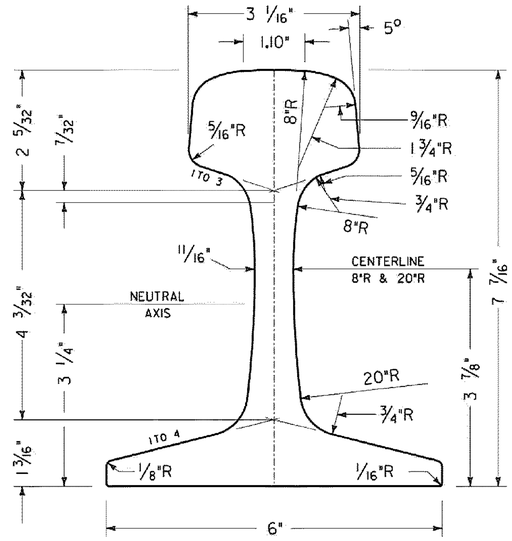
MOMENT OF INERTIA :
94.2 IN.^{4}

SECTION MODULUS :
HEAD = 23.7 IN.^{3}
BASE = 28.2 IN.^{3}

NET TONS PER TRACK MILE :
239.36 TONS

RAIL DRILLING :
3 3/32 IN. ABOVE BASE

HEAD WIDTH :
MAXIMUM = 2.9375 IN.
AT GAGE PT. = 2.8903 IN.



141 RE

AREA :
HEAD - 5.38 IN.^{2} = 38.9 %
WEB - 3.56 IN.^{2} = 25.8 %
BASE - 4.87 IN.^{2} = 35.3 %

RAIL WEIGHT :
140.91 LBS./YD.

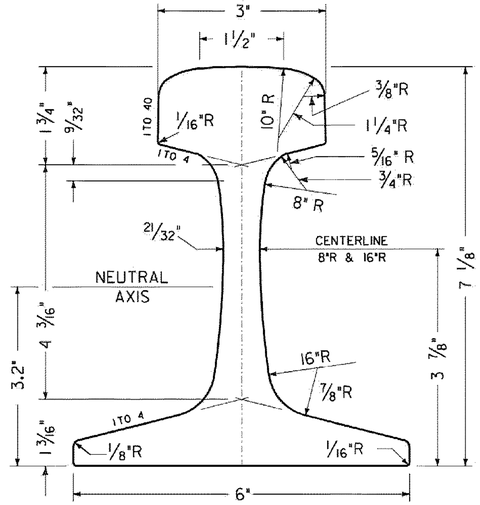
MOMENT OF INERTIA :
100.44 IN.^{4}

SECTION MODULUS :
HEAD = 25.3 IN.^{3}
BASE = 29.0 IN.^{3}

NET TONS PER TRACK MILE :
248.00 TONS

RAIL DRILLING :
3 3/32 IN. ABOVE BASE

HEAD WIDTH :
MAXIMUM = 3.0625 IN.
AT GAGE PT. = 2.9063 IN.



132 RE

AREA :
HEAD - 4.42 IN.^{2} = 34.1%
WEB - 3.66 IN.^{2} = 28.3 %
BASE - 4.87 IN.^{2} = 36.6 %

RAIL WEIGHT :
132.1 LBS./YD.

MOMENT OF INERTIA :
87.9 IN.^{4}

SECTION MODULUS :
HEAD = 22.4 IN.^{3}
BASE = 27.4 IN.^{3}

NET TONS PER TRACK MILE :
232.32 TONS

RAIL DRILLING :
3 3/32 IN. ABOVE BASE

HEAD WIDTH :
MAXIMUM = 3.0000 IN.
AT GAGE PT. = 2.9650 IN.

CSX TRANSPORTATION

132 RE, 136 RE, AND 141 RE RAIL SECTIONS

K A Dounard
APPROVED - CHIEF ENGINEER
MAINTENANCE OF WAY

James D. Bayley
APPROVED - VICE PRESIDENT
ENGINEERING

PREPARED BY:
D.C. CLARK

ISSUED: DECEMBER 7, 2000
REVISED: JUNE 22, 2007

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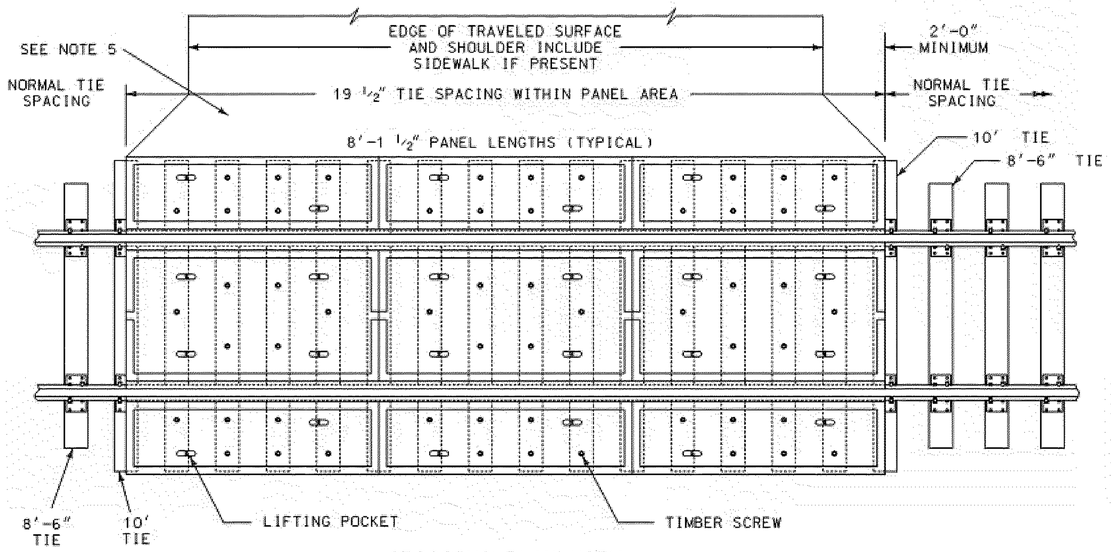
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CSX DETAILS
RAIL SECTIONS

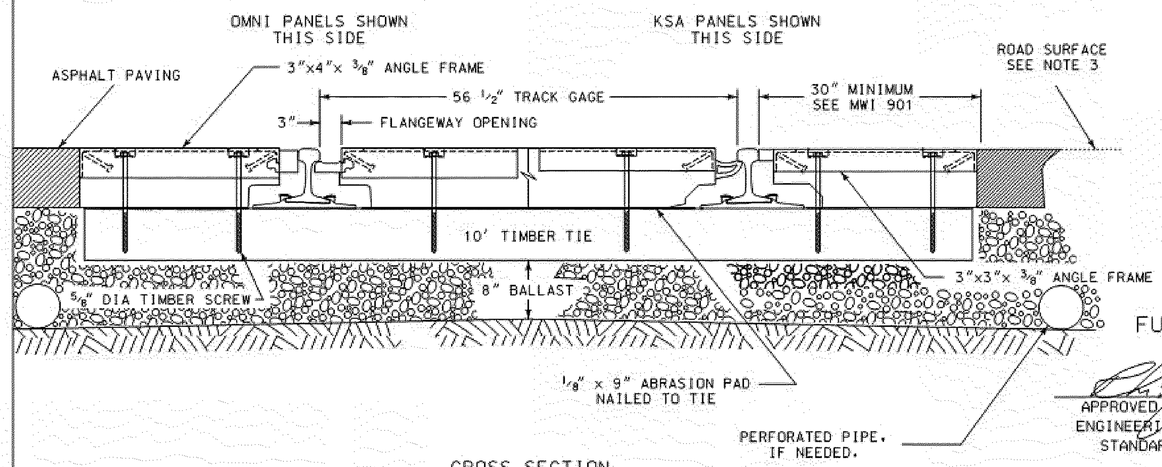
IFB NO: IFB-020-019
DRAWING NO: CSX-003
SCALE: AS SHOWN
SHEET NO: 200 OF 202

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$$TIME$$

2527



CROSSING PLAN VIEW



CROSS SECTION

NOTES

1. MWI 901 (LASTEST REVISION) IS TO BE USED IN CONJUNCTION WITH THIS DRAWING.
2. FOR NEW CONSTRUCTION, HIGHWAY SHOULD INTERSECT RAILROAD AT OR NEARLY RIGHT ANGLES.
3. FOR NEW CONSTRUCTION, HIGHWAY SURFACE SHOULD NOT BE MORE THAN 3 IN. HIGHER OR LOWER THAN TOP OF NEAR RAIL 30 FT. FROM THE RAIL ALONG THE ROAD CENTERLINE, UNLESS TRACK SUPERELEVATION DICTATES OTHERWISE.
4. USE STATE DOT SPECIFICATIONS FOR BITUMINOUS CONCRETE AND ASPHALT SPRAY TACK COAT FOR THE STATE IN WHICH THE CROSSING IS LOCATED.
5. CROSSING SHOULD BE CONTINUOUS BETWEEN ROADWAY OR SIDEWALK EDGES. IF NOT PRACTICABLE, DRAINAGE MUST BE PROVIDED BETWEEN PAVED AREAS TO ELIMINATE WATER POCKETS.
6. SLOPE PAVING TO RETURN TO ORIGINAL PAVEMENT SURFACE. LENGTH OF TRANSITION WILL DEPEND ON LOCAL CONDITIONS. USE A RUNOFF OF 1 IN. PER 10 FT. WHERE PRACTICABLE.
7. IF ROADBED STABLIZATION IS REQUIRED, EXTEND IT 10 FT. BEYOND EDGE OF CROSSING UNDER TRACK.
8. APPROXIMATE WEIGHT FOR 136RE MATERIALS:
   3,200 LBS. - CONCRETE CENTER PANEL
   1,700 LBS. - CONCRETE FIELD PANEL
9. PERFORATED PIPE TO BE SIZED AND LOCATED FOR SITE CONDITIONS. USE 6" MIN. DIA. PIPE AND LOCATE AT LEAST 12" BEYOND END OF TIE.

ORDERING INFORMATION		
ITEM NO.	RAIL WGT.	DESCRIPTION
014-5250300	115 - 122	CROSSING, CONCRETE PANELS, HEAVY DUTY, FOR 10 FT. WOOD TIES. ORDER BY "TRACK FEET" IN APPROX. 8 FT. INCREMENTS. EACH 8'-1 1/2" SECTION INCLUDES 1 CONCRETE CENTER AND 2 CONCRETE FIELD PANELS WITH RUBBER FILLERS.
014-5250305	132 - 136	
014-5250310	141	

CSX TRANSPORTATION

HEAVY DUTY ROAD CROSSING
FULL WIDTH CONCRETE ON WOOD TIES

APPROVED - VICE PRESIDENT
ENGINEERING AND MECHANICAL
STANDARDS AND QUALITY

APPROVED - VICE PRESIDENT
ENGINEERING

PREPARED BY,
J. E. BEYERL

ISSUED, DECEMBER 12, 2002
REVISED, MARCH 22, 2005

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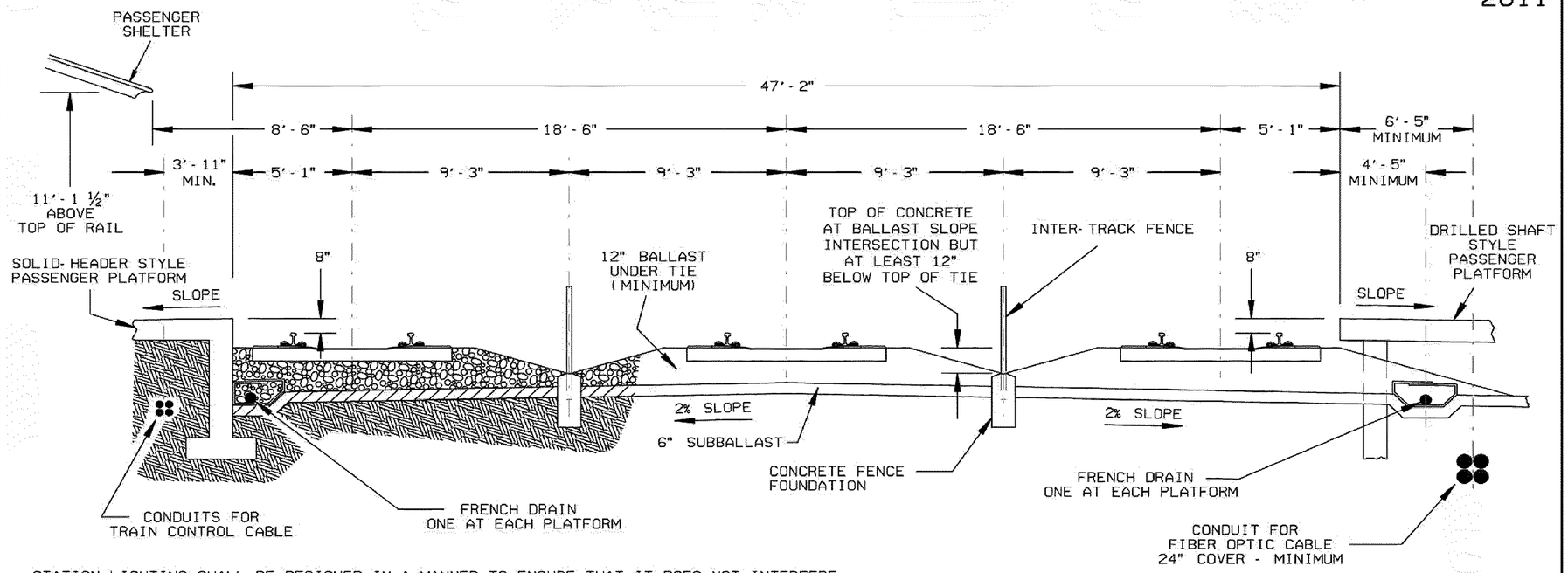
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DRAWING NO: CSX-004
SCALE: AS SHOWN
SHEET NO: 201 OF 202

$$FILE$$
$$DATE$$
$$TIME$$

2611



STATION LIGHTING SHALL BE DESIGNED IN A MANNER TO ENSURE THAT IT DOES NOT INTERFERE WITH TRAIN CONTROL SIGNALS.

TRAIN CONTROL CONDUITS - USE 4 EACH 4" SCHEDULE 40 PIPES WITH PULL WIRES. EXTEND 36" BEYOND PLATFORM AND CAP.

FRENCH DRAINS - USE 6" PERFORATED DRAINAGE PIPE, EITHER POLYETHYLENE OR CORRUGATED METAL. WRAP BALLAST AND PIPE WITH 6 OZ NONWOVEN GEOTEXTILE.

FIBER OPTIC CABLE CONDUIT - USE 4 EACH 8" HDPE - HDR11 OR STEEL CONDUIT WITH MINIMUM 0.388" WALL THICKNESS. EXTEND 36" BEYOND PLATFORM AND CAP.

INTER- TRACK FENCE - 4'-0" TALL, 6" WIDE MAX. REMOVABLE, FENCE PANELS SHALL EXTEND A MINIMUM OF 100' BEYOND ENDS OF LONGEST PLATFORM OR TO A POINT WHERE OTHER ELEMENTS RESTRICT PEDESTRIAN MOVEMENT ACROSS TRACKS.

CONCRETE TIES WITH ELASTIC FASTENERS SHALL EXTEND A MINIMUM OF 150' BEYOND THE PLATFORMS. IN WOOD TIE TERRITORY, THE TRANSITION ZONE SHALL NOT BE IN A CURVE. WOOD TIES WITH APPROPRIATE FASTENERS MAY BE USED IF THE TRACK CENTERS ARE INCREASED TO 20 FEET OR GREATER.

CLEARANCES SHOWN ARE BASED ON STRAIGHT AND LEVEL TRACK. IF ACTUAL CONDITIONS DIFFER, CLEARANCES MUST BE REVIEWED. STATE OR CANADIAN CLEARANCE LAWS MUST NOT BE VIOLATED. SEE CSXT DRAWING 2605.

PEDESTRIAN CROSSINGS ARE TO BE GRADE SEPARATED.

CSX TRANSPORTATION

GENERAL ARRANGEMENT AT PASSENGER PLATFORMS

SIGNED	SIGNED
REVIEWED - DIRECTOR ENGINEERING STANDARDS	APPROVED - CHIEF ENGINEER MAINTENANCE OF WAY
PREPARED BY, D. N. WITT	ISSUED, FEBRUARY 28, 2002 REVISED, INITIAL ISSUE

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QUANTICO STATION

CSX DETAILS
PASSENGER PLATFORMS

IFB NO: IFB-020-019
DRAWING NO: CSX-005
SCALE: AS SHOWN
SHEET NO: 202 OF 202

$$FILE$$
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$$TIME$$