SPECIAL USE PERMIT

VIRGINIA HOUSING DEVELOPMENT AUTHORITY PARKING DECK

CITY OF RICHMOND, VIRGINIA

SITE SUMMARY

OWNER/DEVELOPER: VIRGINIA HOUSING DEVELOPMENT AUTHORITY

13 S 13TH STREET RICHMOND, VIRGINIA 23260

CONTACT: KEVIN RYAN TELEPHONE NO: 202-600-7026

ENGINEER: DRAPER ADEN ASSOCIATES
1030 WILMER AVE, SUITE 100

CONTACT: KEITH SCHOLTEN, P.E. TELEPHONE NO. 804-799-7661 FAX NO. 804-264-8773

EMAIL: KSCHOLTEN@DAA.COM

PARCEL NUMBER: W0000094001

LOCATION: 13 S 13TH STREET, RICHMOND, VA 23260

PRESENT ZONING: M-1 - LIGHT INDUSTRIAL

PROJECT SUMMARY:

EXISTING USE: OPEN SPACE PROPOSED USE: PARKING DECK

ACREAGE: 1.289 ACRES (PARCEL AREA FROM CITY GIS)

NO

FLOOD ZONE X FIRM COMMUNITY-PANEL NUMBER: 5101290037D DATED APRIL 2, 2009

LAND DISTURBANCE: 1.20 ACRES

WETLANDS ON—SITE: NO
WETLAND PERMITS REQ'D: NO
VSMP PERMIT: YES
RPA ON—SITE: NO

RMA ON-SITE: YES
WATER: CITY OF RICHMOND

SEWER: CITY OF RICHMOND

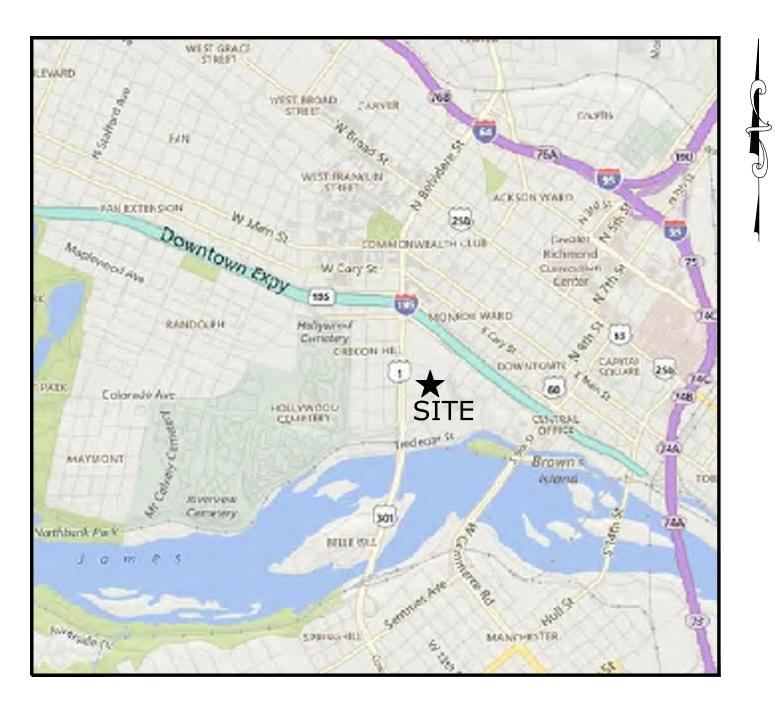
PERMIT CHECKLIST:

WETLANDS DISTURBANCE (STATE) NO
RSMP (CITY) YES
PLUMBING (CITY) YES
BUILDING (CITY) YES
WORK IN STREET (CITY) NO

<u>PARKING</u>

VSMP (STATE)

<u>LEVEL</u> LEVEL 1	<u>FULL SPACES</u> 45	ACCESSIBLE SPACES	VAN SPACES	TOTAL SPACES
LEVEL 2	76	2	۷	78
LEVEL 3 LEVEL 4	76 81	2 2		78 83
TOTAL				000



VICINITY MAP

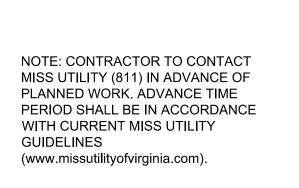
PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO CONSTRUCT A NEW PARKING DECK AND ASSOCIATED HARDSCAPE FEATURES, STORM, AND UTILITY INFRASTRUCTURE TO SERVE THE VHDA HEADQUARTERS EXPANSION. THE TOTAL AREA OF LAND DISTURBANCE FOR THIS PROJECT IS 1.20 ACRES.

1" = 2000'

DAA PROJECT #19020461-010303

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THINKING BEYOND THE CONCRETE. 411 E. FRANKLIN STREET, SUITE 400

HOURIGAN

400 RICHMOND, VA 23219 PHONE: 804.282.5300 www.hourigan.group







SHEET LIST TABLE

ARCHITECTURAL

AM.1

A202

A203

A204

A301

A303

ELECTRICAL

E212

E213

E214

FIRE PROTECTION

SHEET NUMBER SHEET TITLE

COVER SHEET

EROSION CONTROL NOTES
POLLUTION PREVENTION PLAN

EROSION CONTROL PHASE 1

EROSION CONTROL PHASE 2

EROSION CONTROL DETAILS

PARKING DECK LANDSCAPE PLAN

VENTILATION CALCULATIONS

LANDSCAPE NOTES & PLANT SCHEDULE

ELECTRICAL - LIGHTING - D1 FLOOR PLAN

ELECTRICAL - LIGHTING - D2 FLOOR PLAN

ELECTRICAL - LIGHTING - D3 FLOOR PLAN

ELECTRICAL - LIGHTING - D4 FLOOR PLAN

PLUMBING-FIRE PROTECTION-D1 FLOOR PLAN

CIVIL DEMOLITION PLAN

SITE LAYOUT PLAN

SITE UTILITY PLAN

SITE DETAILS
UTILITY DETAILS

UTILITY DETAILS

3D VIEWS

LEVEL D1

LEVEL D2

LEVEL D3

LEVEL D4

SECTIONS

ELEVATIONS

ELEVATIONS

PANEL DETAILS

ONE LINE DIAGRAM

GARAGE SIGNAGE

SITE GRADING PLAN

SITE DRAINAGE PLAN

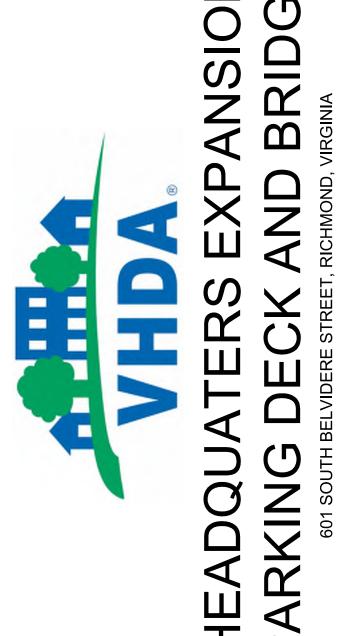
GENERAL NOTES, LEGEND & ABBREVIATIONS











ISSUE LOG

SPECIAL USE PERMIT	4/14/2020	
CITY COMMENTS	7/31/2020	
CITY COMMENTS	10/14/2020	
DESCRIPTION	DATE	N ₁



Sheet Name:
COVER SHEET

Sheet Number:

C100

Hourigan Project Number:

GENERAL NOTES

"MISS UTILITY", 1-800-552-7001.

- DIMENSIONS AND RADII ARE TO FACE OF CURB, WHERE APPLICABLE, UNLESS OTHERWISE INDICATED.
- . DIMENSIONS AT BUILDING ARE TO OUTSIDE FACE, UNLESS OTHERWISE INDICATED. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT
- FROM THE CITY OF RICHMOND OR STATE AGENCIES. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND AT HIS EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE
- ALL PAVING MATERIALS AND DRAINAGE STRUCTURES SHALL BE BUILT AND INSTALLED IN ACCORDANCE WITH CITY OF RICHMOND STANDARDS AND SPECIFICATIONS.

FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.

- THE LOCATION OF EXISTING SEWER, WATER OR GAS LINES, CONDUITS OR OTHER STRUCTURES ACROSS, UNDERNEATH, OR OTHERWISE ALONG THE LINE OF PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS, AND IF SHOWN ARE ONLY APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT ENGINEER IMMEDIATELY IF LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLANS, IF THERE APPEARS TO BE A CONFLICT, OR UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE PLANS. FOR ASSISTANCE IN LOCATING EXISTING UTILITIES CALL
- ALL WATER AND SEWER CONSTRUCTION AND MATERIALS SHALL CONFORM WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE CITY OF RICHMOND. (REFERENCE DEPARTMENT OF PUBLIC UTILITIES CITY OF RICHMOND, VIRGINIA STANDARDS FOR DETAILS.)
- WHERE PAVEMENT IS BEING REMOVED. THE CONTRACTOR SHALL REMOVE AGGREGATE BASE MATERIAL TO SUB-GRADE.
- DAMAGE TO UTILITIES (INCLUDING UNDERGROUND) OR PROPERTY OF OTHERS BY CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRECONSTRUCTION CONDITIONS BY CONTRACTOR AT NO COST TO OWNER.
- O. EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY CONTRACTOR (WHICH ARE NOT TO BE REMOVED) SHALL BE REPAIRED TO LIKE-NEW CONDITION.
- . THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL PIPES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURES IN OPERABLE CONDITION.
- 2. THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY CITY INSPECTORS.
- 3. PARKING SPACES SHALL BE DELINEATED BY FOUR INCH WIDE WHITE TRAFFIC
- 14. LANDSCAPING AND SITE IMPROVEMENTS WILL BE INSTALLED AND MAINTAINED SO AS NOT TO INTERFERE WITH SIGHT DISTANCE NEEDS OF DRIVERS WITHIN THE PARKING AREA AND AT ENTRANCE/EXIT LOCATIONS.
- 15. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AT LEAST 48 HOURS PRIOR TO STARTING WORK ON THIS PROJECT.
- 16. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF REPAIR OR REPLACEMENT OF ANY TRAFFIC CONTROL EQUIPMENT THAT EITHER NEEDS TO BE RELOCATED OR THAT IS DAMAGED AS A RESULT OF THIS PROJECT. ANY WORK INVOLVING THE TRAFFIC CONTROL EQUIPMENT SHALL BE COORDINATED THROUGH THE CITY OF RICHMOND TRAFFIC ENGINEERING.
- 7. FIRE LANE DESIGNATION AND MARKING TO BE DETERMINED PRIOR TO PROJECT COMPLETION.
- 18. UNLESS OTHERWISE NOTED, ALL CONCRETE PIPE SHALL BE REINFORCED CONCRETE PIPE, CLASS III.
- 19. ALL EXCAVATION FOR UNDERGROUND PIPE INSTALLATION MUST COMPLY WITH OSHA STANDARDS FOR THE CONSTRUCTION INDUSTRY (29 CFR PART 1926).
- 20. VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY, ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS AND NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH
- 21. DEVIATIONS FROM. OR CHANGES TO THESE PLANS WILL NOT BE ALLOWED. UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- 22. MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO THE PLANS IF NECESSARY. THE EXISTENCE AND/OR LOCATION OF UTILITIES SHOWN ON THESE PLANS MAY BE ONLY APPROXIMATELY CORRECT. TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN HEREON AND ANY OTHER EXISTING UTILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. REPAIR AT YOUR OWN EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION. IF A UTILITY IS DAMAGED DURING CONSTRUCTION, STOP WORK IMMEDIATELY AND NOTIFY THE ENGINEER.
- 23. PROPERLY SECURE THE CONSTRUCTION AREA AT ALL TIMES AGAINST UNAUTHORIZED ENTRY AND ADEQUATELY PROTECT EQUIPMENT, MATERIALS, AND COMPLETED WORK FROM THEFT AND VANDALISM. THE OWNER IS NOT RESPONSIBLE FOR THE LOSS OF ANY MATERIAL STORED AT THE SITE.
- 24. CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL AND ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM "THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER."
- 25. PERFORM ALL WORK USING DIMENSIONS SHOWN ON THESE PLANS. DO NOT USE SCALES. RULERS. DIVIDERS. MAP WHEELS OR OTHER MEASURING DEVICES TO DETERMINE SPATIAL RELATIONSHIPS ON THESE DRAWINGS.
- 26. ALL UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE CONSTRUCTION LIMITS OF PAVED AREAS.
- 27. CONTRACTOR SHALL PROVIDE AND INSTALL 6 FOOT CHAIN LINK FENCING AND OTHER NECESSARY SITE SECURITY MEASURES FOR EACH PHASE OF CONSTRUCTION.
- $28.\ \mathsf{PAVEMENT}\ \mathsf{MARKINGS}\ \mathsf{SHALL}\ \mathsf{BE}\ \mathsf{WHITE}\ \mathsf{THERMOPLASTIC}\ \mathsf{AND}\ \mathsf{MEET}\ \mathsf{VDOT}$ SPECIFICATIONS.

CITY OF RICHMOND GENERAL CONSTRUCTION AND GEOTECHNICAL NOTES

- 1. ALL CONTROLLED FILL ZONES ARE TO BE MONITORED BY A FULL TIME
- GEOTECHNICAL ENGINEERING SERVICES FIRM. 2. ENGINEERED FILLS SHALL BE PROPERLY PLACED ACCORDING TO THE

RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.

- 3. ALL SUMMARY REPORTS FROM THE GEOTECHNICAL ENGINEER REPRESENTING THE PROJECT MUST STATE HIS PROFESSIONAL OPINION ON THE SATISFACTORILY COMPLETED PHASES OF CONSTRUCTION SUCH AS; SLOPE CUTS, SUBDRAINAGE SYSTEMS, PREPARATION OF SUBGRADES AND COMPACTION OF EARTH FILLS.
- 4. NO FILLS SHALL HAVE ZONES THAT EXCEED TWO (2) FEET IN ELEVATION WITHOUT CONDUCTING COMPACTION TEST AND OBTAINING RESULTS OF 95% OR GREATER.
- 5. THE GEOTECHNICAL ENGINEER MUST SUBMIT A DETAILED ANALYSIS, ITEMIZING THE FIELD DENSITY TEST RESULTS. THIS REPORT SHALL BE ACCOMPANIED WITH A COPY OF THE SITE PLAN SHEET AND INDICATE THE TEST LOCATIONS AND ELEVATIONS. THE GEOTECHNICAL ENGINEER MUST PROVIDE ENOUGH DESIGNATED TESTING IN ALL FILL ZONES TO ADEQUATELY EXAMINE AND CERTIFY THE INTEGRITY
- 6. THESE GEOTECHNICAL NOTES SHALL IN NO WAY LESSEN THE REQUIREMENTS OF THE SUBMITTED SOILS REPORT.

- 1. INSPECTION AND APPROVAL OF THE SUBGRADE WILL BE REQUIRED PRIOR TO THE PLACEMENT OF THE APPROVED PAVEMENT SECTION MATERIAL.
- 2. ANY CLAY DEPOSITS IN THE TOP TWO FEET OF THE SUBGRADE MUST BE REMOVED OR ADDRESSED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
- 3. SUBGRADE APPROVAL SHALL BE ACCOMPANIED BY THE SUPPORTING DOCUMENTATION VERIFYING DENSITY TEST RESULTS OF 95% OR GREATER.
- 4. THE ENTIRE SUBGRADE WILL HAVE BEEN PROOFROLLED IN THE PRESENCE OF THE SITE INSPECTOR AND GEOTECHNICAL REPRESENTATIVE. PROOFROLLING SHALL BE A RUBBER TIRE VEHICLE SUCH AS A LOADED TEN (10) TON TRUCK OF APPROVED COMPACTION EQUIPMENT.
- 5. THE FINAL SUBGRADE SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER AND SITE INSPECTOR BEFORE PLACEMENT OF PAVEMENT SECTION MATERIALS.

WATER

- 1. PVC PLASTIC PIPE SHALL MEET THE REQUIREMENTS OF AWWA C900, TABLE 2, (CAST IRON OD) CLASS 150 EXCEPT THAT ALL CONNECTIONS SHALL BE MADE USING ELASTOMERIC GASKET JOINTS. NO PVC PIPE LARGER THAN 8" SHALL BE USED FOR WATER LINES.
- 2. DUCTILE IRON PIPE SHALL BE AWWA C-151 FOR PRESSURE AND THICKNESS CLASS SHOWN ON THE DRAWINGS. THICKNESS CLASSES SHALL MEET THE REQUIREMENTS OF AWWA C-150. ALL PIPE SHALL HAVE A CEMENT-MORTAR LINING ON THE INTERIOR AND AN ASPHALTIC SEAL COAT ON THE EXTERIOR. MINIMUM THICKNESS SHALL BE CLASS 52 FOR 12-INCH AND SMALLER, AND CLASS 51 FOR 16-INCH AND LARGER. ALL DUCTILE IRON PIPING SHALL HAVE MECHANICAL RESTRAINED JOINTS.
- 3. PRESSURE LINES SHALL BE INSTALLED WITH CLASS C-1 BEDDING AS INDICATED IN THE STANDARD DRAWINGS.

SANITARY SEWER

- 1. PVC PLASTIC PIPE SHALL MEET REQUIREMENTS OF ASTM D-3034 TYPE PSM SDR-35 FOR SIZES 4-INCH THROUGH 15-INCH AND ASTM F-679 FOR PIPE SIZED 18-INCH THROUGH 27-INCH WITH ELASTOMERIC GASKET JOINTS MEETING REQUIREMENTS OF ASTM D3212.
- 2. DUCTILE IRON PIPE (D.I.) SHALL MEET THE REQUIREMENTS OF AWWA C-151 FOR THE PRESSURE AND THICKNESS CLASSES SHOWN ON THE DRAWINGS. PIPE SHALL HAVE A CEMENT-MORTAR LINING AND AN ASPHALT SEAL COAT. THICKNESS CLASSES SHALL MEET THE REQUIREMENTS OF AWWA C-150, CLASS 50.
- 3. GRAVITY SEWER LINES SHALL BE INSTALLED WITH A MINIMUM OF 6 INCHES OF GRANULAR BEDDING (CLASS B).

SITE STORM SEWER

- 1. ALL STORM SEWER MATERIAL, JOINTS, AND INSTALLATION SHALL COMPLY WITH CURRENT VDOT STANDARDS.
- 2. ALL REINFORCED CONCRETE STORM SEWER PIPE SHALL CONFORM TO ASTM C14 & C76. ALL RCP SHALL HAVE A CONCRETE JOINT WITH CONFINED O-RING GASKET OF RUBBER OR NEOPRENE CONFORMING TO ASTM C443 OR C1173.

DEMOLITION WITHIN PUBLIC RIGHT-OF-WAY

- 1. DESTRUCTIVE WORK WITHIN THE PUBLIC RIGHT-OF-WAY FOR UTILITY CONNECTIONS OR REPAIR/REPLACEMENT OF EXISTING IMPROVEMENTS MUST ADHERE TO GUIDELINES FOR THE RESTORATION OF TRENCH CUTS SPECIFIED IN THE DPW RIGHT-OF-WAY EXCAVATION AND RESTORATION MANUAL.
- 2. ANY CITY OF RICHMOND INFRASTRUCTURE DAMAGED DURING THE COURSE OF CONSTRUCTION MUST BE REPAIRED TO THE RIGHT OF WAY INSPECTOR'S APPROVAL AT THE DEVELOPER'S EXPENSE. A DPW INSPECTOR WILL MEET THE DEVELOPER ON SITE PRIOR TO CONSTRUCTION TO EVALUATE THE EXISTING RIGHT OF WAY CONDITIONS AND INDICATE THE LIMITS OF REPAIR AND/OR REPLACEMENT REQUIRED. AN ADDITIONAL MEETING PRIOR TO CLOSURE OF ANY PERMITS IS ALSO REQUIRED TO VERIFY COMPLIANCE BASED ON THE PRIOR MEETING. OPEN CUTS WITHIN THE CITY OF RICHMOND STREETS MUST BE RESTORED PER THE ADOPTED DEPARTMENT OF PUBLIC WORKS "TRENCH CUT RESTORATION MANUAL."

EROSION CONTROL NOTES

- 1. THE CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES AS REQUIRED DURING CONSTRUCTION IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, 1992, 3rd EDITION. ALL DEVICES REFERRED TO IN THESE PLANS CAN BE FOUND IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
- 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERIODICALLY INSPECT ALL SEDIMENT AND EROSION CONTROL DEVICES AND INSURE THAT THEY ARE IN GOOD WORKING ORDER. AT A MINIMUM, ALL DEVICES SHALL BE INSPECTED DAILY AND AFTER MAJOR RAINFALL EVENTS. ANY DEVICE NEEDING REPAIRS SHALL BE REPAIRED WITHIN 24 HOURS.
- 3. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES IF DURING THE COURSE OF CONSTRUCTION THE EROSION CONTROL INSPECTOR DETERMINES THAT THEY ARE REQUIRED.
- 4. SILT SHALL BE REMOVED FROM SILT FENCES WHEN THE SILT REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- 5. THE CONTRACTOR SHALL PERIODICALLY TOP DRESS THE CONSTRUCTION ENTRANCE WITH CLEAN STONE. IF THE CONSTRUCTION ENTRANCE FAILS TO REMOVE DIRT FROM THE TIRES OF VEHICLES ENTERING A PUBLIC RIGHT-OF-WAY A WASH RACK SHALL BE INSTALLED AND THE TIRES WASHED. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ANY REQUIRED WATER FOR THE WASHING OF TIRES. DIRT TRACKED ONTO THE PUBLIC RIGHT-OF-WAYS SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
- 6. ALL STORM AND SANITARY SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN SEVEN DAYS AFTER BACKFILL. NO MORE THAN FIVE HUNDRED FEET ARE TO BE OPEN AT ONE TIME.
- 7. ELECTRIC POWER, TELEPHONE, AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN FIFTEEN DAYS AFTER BACKFILL.
- 8. DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY SILT TRAPS, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS
- 9. ANY DISTURBED AREA NOT PAVED, SODDED, OR BUILT UPON BY NOVEMBER FIRST. IS TO BE SEEDED ON THAT DATE WITH OATS. ABRUZZI, RYE, OR EQUIVALENT AND MULCHED WITH HAY OR STRAW MULCH. MODIFY AS APPLICABLE DEPENDING ON PROPOSED TIME OF CONSTRUCTION.
- 10. THE CONTRACTOR IS RESPONSIBLE FOR APPOINTING DESIGNATED "RESPONSIBLE LAND DISTURBER" (RLD) WHO SHALL BE RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL EROSION CONTROL MEASURES. THE RLD SHALL BE CERTIFIED IN VIRGINIA. THE RLD IS REQUIRED THROUGHOUT ALL PHASES OF CONSTRUCTION. THE CONTACT INFORMATION AND CERTIFICATION NUMBER FOR THE RLD MUST BE PROVIDED TO VCU A MINIMUM OF THREE WEEKS PRIOR TO LAND DISTURBANCE ACTIVITIES.
- 11. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
- 12. ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATION 9VAC25-840.
- 13. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO ISSUANCE OF A LAND DISTURBANCE PERMIT. THE CONTRACTOR SHALL SCHEDULE THE MEETING WITH THE CITY OF RICHMOND EROSION CONTROL INSPECTOR ASSIGNED TO THE PROJECT.

CITY OF RICHMOND STANDARD E&S NOTES

- 1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN. DORMANT (UNDISTURBED) FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
- 2. EXCESS EXCAVATION DISPOSED OF OFF THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. 3. EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH
- VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND SHALL BE PLACED PRIOR TO OR AS THE FIRST STEP OF THE LAND DISTURBING ACTIVITY. 4. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED SO THAT THE SEDIMENT CARRYING RUNOFF FROM THE SITE WILL NOT ENTER STORM DRAINAGE
- FACILITIES. 5. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED UNTIL THE DISTURBED
- 6. PROPERTIES ADJOINING THE SITE SHALL BE KEPT CLEAN OF MUD OR SILT

CARRIED FROM THE SITE BY VEHICULAR TRAFFIC OR RUNOFF.

AREA IS STABILIZED.

- 7. THE DISPOSAL OF WASTE MATERIALS REMOVED FROM EROSION AND SEDIMENT CONTROL FACILITIES AND THE DISPOSAL OF THESE FACILITIES SHALL BE IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
- 8. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
- 9. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

EXISTING		<u>PROPOSED</u>	EXISTING		PROPOSE
— — — 1000 — — —	CONTOURS	FG 1000 TC	\otimes	WATER VALVE	•
× 1561.3	GROUND ELEVATION	√ 1528.3 √ 1528.3	\otimes	POST INDICATOR VALVE	•
	TREE LINE	N/A		AIR RELEASE VALVE	•
· · · ·	STREAM	N/A	\circ	BLOW OFF VALVE	•
	LIMITS OF CLEARING		\otimes	GATE VALVE	H
	DECIDUOUS TREE	N/A	\bowtie	BUTTERFLY VALVE	H
			Å	B.F. VALVE w/OPERATOR	*
	CONIFEROUS TREE	N/A	abla	SIAMESE CONNECTION	lacktriangle
7/ \				FIRE HYDRANT	•
£3	SHRUB	N/A	9	HOSE BIB	₹
XX	FENCE	xx	\ominus	WATER METER	•
	PROPERTY LINE/ROW		W	WATER MANHOLE	W
\odot	IRON ROD FOUND	N/A	$\langle \circ \rangle$	WELL	•
•	IRON ROD SET	N/A	com	GENERIC COMMUNICATION —	COM-
	MONUMENT FOUND	N/A	ugc	UNDERGROUND COMMUNICATION—	UGC-
	MONUMENT SET	N/A	ohc	OVERHEAD COMMUNICATIONS —	—— ОНС-
			fo	FIBER OPTICS -	FO—
	EASEMENT		F	FIBER OPTICS MANHOLE	F
	100 YEAR FLOOD ZONE	N/A	\bigoplus	FIBER OPTICS PEDESTAL	Φ
	LIMITS OF CONSTRUCTION		catv	CABLE TV -	CATV -
*	BENCHMARK	N/A	©	CABLE TV MANHOLE	©
	BUILDING		*	CABLE TV PEDESTAL	₩
N/A	HEAVY DUTY PAVEMENT		t	TELEPHONE LINE —	——т—
N/A	STANDARD DUTY PAVEMENT		oht	OVERHEAD TELEPHONE —	OHT _
N/A	CONCRETE		ugt	— UNDERGROUND TELEPHONE —	UGT _
N/A	DEMOLITION			TELEPHONE BOX	\boxtimes
		^^^^^		TELEPHONE MANHOLE	T
N/A	DEMOLITION KEY	1	\bigcirc	TELEPHONE PEDESTAL	۵
			-0-	TELEPHONE POLE	-
	SIGN		g	GAS LINE -	—— G—
•	BOLLARD	•		GAS DRIP	±
-	BOREHOLE	→		GAS METER	
	METAL POST		G	GAS MANHOLE	G
\Rightarrow	WOOD POST	\ominus	\bigcirc	GAS VALVE	•
+	TEST PIT	.	vm	VACUUM MAIN —	
	STORM SEWER		lacktriangle	VACUUM ACCESS POINT	•
\bigcirc	STORM CLEANOUT	•		VACUUM DIVISION VALVE	
	STORM MANHOLE		\forall	VACUUM VALVE PIT	\checkmark
	STORM DRAINAGE INLET		air	AIR LINE -	——— AIR —
$\langle 1 \rangle$	STORM STRUCTURE KEY	$\langle 1 \rangle$		TRAVERSE	
ss —	SANITARY SEWER	SS	npw	NON-POTABLE WATER —	NPW-
fm	FORCE MAIN	FM	fp	FIRE PROTECTION —	FP —
\bigcirc	SANITARY CLEANOUT	•	cw	COLD WATER —	CW
\odot	SANITARY MANHOLE	•	cwr	COLD WATER RETURN —	CWR-
(1)	SANITARY STRUCTURE KEY	(1)	cws	COLD WATER SUPPLY —	CWS-
uge	UNDERGROUND ELECTRIC	UGE	hw	HOT WATER —	HW
——— ohp ———	OVERHEAD POWER	OHP	hwr	HOT WATER RETURN —	HWR
	LIGHT POLE		hws	HOT WATER SUPPLY —	HWS
-	ELECTRIC POLE	•	T	TELEPHONE HAND HOLE	T
© ©	ELECTRIC MANHOLE	E		CABLE TV HAND HOLE	C
w	WATER	w	F	FIBER OPTICS HAND HOLE	F
vv	WATER	v v		TIDEN OF HOS HAND HOLE	ات

CENEDAL LECEND

ABBI	REVIATIONS AND	D.I.	DUCTILE IRON	PSI	POUNDS PER SQUARE INCH
		DI	DROP INLET	PT	POINT OF TANGENCY
SYM	BOLS	DIA.	DIAMETER	PVC	POLYVINYL CHLORIDE
		DS	DOWNSPOUT	R	RADIUS
SYMBOL:	S	EA. E.F.	EACH FACE	RCP	REINFORCED CONCRETE PIPE
3 T T T T T T T T T T T T T T T T T T T	<u>u</u>		EACH FACE	RD	ROOF DRAIN
D	AT	ELEV.	ELEVATION	REQ'D.	REQUIRED
<u>.</u>	CENTERLINE	EX. EXP.	EXISTING	R/W	RIGHT-OF-WAY
<u>-</u>	PLATE	EXP. E.W.	EXPANSION	IINV.	SANITARY
5	DIAMETER		EACH WAY	SCO	SANITARY CLEANOUT
	DEGREE	FC FF	FACE OF CURB	SF	
		FL	FINISHED FLOOR FLOW LINE	SPEC.	SPECIFICATION `
ABBREVI	ATIONS			SPECS	SPECIFICATIONS
	, , , , , , , , , , , , , , , , , , , 	FT	FOOT (FEET)	SQ.	SQUARE
4	AREA	GA	GAUGE	STCO	STORM SEWER CLEANOUT
, AC	ACRE(S)	GALV.	GALVANIZED	STM	STORM
AWWA	AMERICAN WATER WORKS	GS	GROUND SHOT	STD.	STANDARD
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	ASSOCIATION	ID	INSIDE DIAMETER	SW	SIDEWALK
BLDG.	BUILDING	INV.	INVERT	SWM	STORM WATER MANAGEMENT
30TT.	BOTTOM	JT.	JOINT	SY	SQUARE YARD(S)
OF.	CUBIC FEET	LAT	LATERAL	TC	TOP OF CURB (
DG	CURB AND GUTTER	LB	POUND	TDC	TURNED DOWN CURB
D.I.	CAST IRON	LBS	POUNDS	TEMP.	TEMPORARY
).i. Cl	CURB INLET	LF	LINEAR FOOT (FEET)	TYP.	TYPICAL
CIP	CAST IN PLACE	MAT'L.	MATERIAL	UNO	UNLESS NOTED OTHERWISE
CJ	CONSTRUCTION JOINT	MAX.	MAXIMUM	VAR.	VARIABLE
CLR.	CLEAR	MFR.	MANUFACTURER	VDOT	VIRGINIA DEPARTMENT OF
C.O.	CLEANOUT	MH	MANHOLE		TRANSPORTATION
CONC.	CONCRETE	MIN.	MINIMUM	VESCH	VIRGINIA EROSION AND
CONT.	CONTINUOUS	M.J.	MECHANICALLY JOINED		SEDIMENT CONTROL HANDBOOK
CY		O.C.	ON CENTER	WV	WATER VALVE
	CUBIC YARD(S)	OD	OUTSIDE DIAMETER	WWF	WELDED WIRE FABRIC
D.A.T.R.		PB	PARCEL BOOK		
D.B.	DEED BOOK	PL	PROPERTY LINE		



THINKING BEYOND THE CONCRETE.

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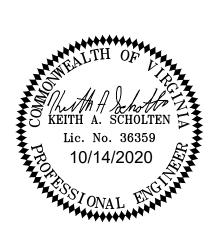








ISSUE LOG SPECIAL USE PERMIT 4/14/2020 CITY COMMENTS 7/31/2020 CITY COMMENTS 10/14/2020 DATE NO DESCRIPTION



Sheet Name: GENERAL NOTES LEGEND & **ABBREVIATIONS**

Sheet Number:

STATE MINIMUM STANDARDS FOR EROSION CONTROL

GENERAL EROSION AND SEDIMENT CONTROL NOTES

- UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS 9VAC25-840.
- ES-2: THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND

DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

- ES-3: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
- ES-4: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- ES-5: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
- ES-6: THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
- TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.

ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL

- ES-8: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING
- ES-9: THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE

MINIMUM STANDARDS

THREE ACRES.

BASIN IS UTILIZED.

- A VESCP MUST BE CONSISTENT WITH THE FOLLOWING CRITERIA, TECHNIQUES AND METHODS:
- MS-1 PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
- MS-2 DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
- MS-3 A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE, AND WILL INHIBIT EROSION.
- MS-4 SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
- MS-5 STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
- MS-6 SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON
- THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN. A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAT
 - B. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A TWENTY-FIVE YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT
- MS-7 CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.
- MS-8 CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
- MS-9 WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
- MS-10 ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
- MS-11 BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL
- MS-12 WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
- MS-13 WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.
- MS-14 ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.
- MS-15 THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
- MS-16 UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
 - A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
 - B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
 - C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
 - D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
 - E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REQULATIONS. F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

- MS-17 WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.
- MS-18 ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE VESCP. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
- MS-19 PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA:
- CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.
- ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
- THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION; OR
- NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS.
- ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND
- PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.
- IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE

CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:

- IMPROVE THE CHANNEL TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL THE BED OR BANKS: OR
- IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES; OR
- DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TEN-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL
 - PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE VESCP AUTHORITY TO PREVENT DOWNSTREAM
- THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
- ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT OF THE SUBJECT PROJECT.
- IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION. HE SHALL OBTAIN APPROVAL FROM THE VESCP OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
- OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL. AND ENERGY DISSIPATERS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.
- ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.
- INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.
- IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.
- ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.
- ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO (I) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; (II) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24-HOUR STORM; AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO § 62.1-44.15:54 OR <u>62.1-44.15:65</u> OF THE ACT.
- FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62.1-44.15:52 A OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§ 62.1-44.15:24 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITIES (I) ARE IN ACCORDANCE WITH PROVISIONS FOR TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA IN 9VAC25-870-47 OR GRANDFATHERING IN 9VAC25-870-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATION, IN WHICH CASE THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF \ 62.1-44.15:52 A OF THE ACT SHALL APPLY, OR (II) ARE EXEMPT PURSUANT TO \S 62.1-44.15:34 C 7 OF THE ACT.
- COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN <u>9VAC25-870-66</u> OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATIONS SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF SUBDIVISION 19 OF THIS SUBSECTION. STATUTORY AUTHORITY
- § 62.1-44.15:52 OF THE CODE OF VIRGINIA.

EROSION CONTROL NARRATIVE

THE PURPOSE OF THIS PROJECT IS TO CONSTRUCT A PARKING DECK THAT WILL SERVE THE NEW BUILDING ADDITION AT THE EXISTING VHDA FACILITY IN RICHMOND, VIRGINIA. THIS WILL ALSO INCLUDE THE CONSTRUCTION OF HARDSCAPE FEATURES, UTILITIES, AND ASSOCIATED STORMWATER INFRASTRUCTURE. A TOTAL OF 1.20 ACRES WILL BE DISTURBED DURING CONSTRUCTION.

THE PROPOSED SITE IS LOCATED ON VIRGINIA HOUSING DEVELOPMENT AUTHORITY PROPERTY WITHIN THE RICHMOND CITY LIMITS. THE SITE CONSISTS OF GRASS, SIDEWALKS, AND UTILITIES.

ADJACENT PROPERTY
THE PROJECT SITE IS BORDERED BY SOUTH FIRST STREET TO THE WEST AND NORTHWEST AND SPRING

STREET TO THE NORTHEAST AND EAST. SOUTH SECOND STREET FORMS THE SOUTHERN BORDER.

OFF-SITE AREAS NO OFFSITE STOCKPILE AREAS OR BORROW AREAS ARE PROPOSED.

(REFER TO SHEET C201 FOR SOILS MAPPING FROM USDA NATURAL RESOURCES CONSERVATION SERVICE)

MAP UNIT SYMBOL	<u>NAME</u>	HYDROLOGIC UNIT CODE
37B	TURBEVILLE-URBAN LAND COMPLEX	В
40	UDORTHENTS-DUMPS COMPLEX	В
45F	WATEREE-WEDOWEE-ROCK OUTCROP COMPLE	X B
THE TURBEVILLE—UR	RBAN LAND COMPLEX CONSISTS OF WELL-DRAINED	SOILS. THE PERMEABILITY RATE
FOR THIS SOIL IS 0	.57-1.98 INCHES PER HOUR, AND THE ERODIBILITY	FACTOR (K) IS 0.32 WHICH IS IN

THE RANGE OF MODERATE ERODIBILITY.

THE WATEREE-WEDOWEE-ROCK OUTCROP COMPLEX CONSISTS OF WELL-DRAINED SOILS. THE PERMEABILITY RATE FOR THIS SOIL IS 0.57-1.98 INCHES PER HOUR, AND THE ERODIBILITY FACTOR (K) IS 0.24 WHICH IS IN THE RANGE OF MODERATE ERODIBILITY.

SEDIMENTATION OF THE EXISTING STORM SEWER SYSTEMS, ADJACENT DEVELOPED AREAS, AND THE ADJACENT ROADS MUST BE PREVENTED.

STOCKPILING
SOIL STOCKPILES ARE NOT PROPOSED.

EROSION AND SEDIMENT CONTROL MEASURES UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

STRUCTURAL PRACTICES SAFETY FENCE CONSTRUCTION ENTRANCE SILT FENCE STORM DRAIN INLET PROTECTION TEMPORARY DIVERSION DIKE TEMPORARY SEDIMENT TRAP	VESCH STD. & SPEC. NUMB #3.01 #3.02 #3.05 #3.07 #3.09 #3.13
VEGETATIVE PRACTICES TEMPORARY SEEDING PERMANENT SEEDING	#3.31 #3.32

THE UDORTHENTS-DUMPS COMPLEX CONSISTS OF WELL-DRAINED SOILS.

CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS

#3.39

- QUICKLY AS POSSIBLE. . SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS A FIRST STEP IN GRADING.
- . TEMPORARY SEEDING OR OTHER STABILIZATION WILL FOLLOW IMMEDIATELY AFTER GRADING.
- 4. AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED. 5. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF
- ALL EROSION AND SEDIMENT CONTROL PRACTICES. 6. AFTER ACHIEVING ADEQUATE STABILIZATION, THE TEMPORARY EROSION AND SEDIMENT CONTROLS WILL BE CLEANED UP AND REMOVED.

EROSION CONTROL SEQUENCE OF CONSTRUCTION

- (PHASE 1) NOTIFY THE CITY OF RICHMOND EROSION CONTROL INSPECTOR 48 HOURS PRIOR TO SCHEDULE AN ON-SITE PRE-CONSTRUCTION MEETING. THE CERTIFIED RESPONSIBLE LAND DISTURBER (RLD) MUST ATTEND THE MEETING. DO NOT BEGIN LAND DISTURBANCE WITHOUT INSPECTOR'S APPROVAL 2. INSTALL PHASE 1 EROSION CONTROL DEVICES.
- . PERFORM DEMOLITION AS SHOWN AND BEGIN ROUGH GRADING.
- 4. ADJUST ALL EROSION CONTROL DEVICES AS NECESSARY IN ORDER TO MAINTAIN PROPER FUNCTION. (PHASE 2) . BEGIN SITE FEATURE CONSTRUCTION, INSTALLING INLET PROTECTION AS NEW INLETS ARE INSTALLED.
- 6. ADJUST ALL EROSION CONTROL DEVICES AS NECESSARY IN ORDER TO MAINTAIN PROPER FUNCTION. . STABILIZE THE SITE DURING AND AT THE CONCLUSION OF CONSTRUCTION PER VESCH STANDARDS. 8. AFTER ALL UPSLOPE AREAS HAVE BEEN STABILIZED AND ONLY WITH THE APPROVAL OF THE CITY
- OF RICHMOND EROSION CONTROL INSPECTOR, REMOVE ALL REMAINING EROSION CONTROL DEVICES.

DUST CONTROL

- . SAFETY FENCE SHALL BE CHECKED REGULARLY FOR WEATHER—RELATED OR OTHER DAMAGE. ANY NECESSARY REPAIRS MUST BE MADE IMMEDIATELY. CARE SHOULD BE TAKEN TO SECURE ALL ACCESS POINTS (GATES) AT THE END OF EACH WORKING DAY. ALL LOCKING DEVICES MUST BE REPAIRED OR REPLACED AS NECESSARY.
- 2. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.
- 3. SILT FENCE SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND
- 4. THE INLET PROTECTION STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
- 5. THE DIVERSION DIKE SHALL BE INSPECTED AFTER EVERY STORM EVENT AND REPAIRS MADE AS NECESSARY. ONCE EVERY TWO WEEKS, WHETHER A STORM EVENT HAS OCCURRED OR NOT, THE MEASURE SHALL BE INSPECTED AND REPAIRS MADE IF NEEDED. DAMAGES CAUSED BY CONSTRUCTION TRAFFIC OR OTHER ACTIVITY MUST BE REPAIRED BEFORE THE END OF EACH
- 6. THE SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RE-SEEDED AS NEEDED.

PERMANENT STABILIZATION

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING OR HARDSCAPE IMMEDIATELY FOLLOWING FINISHED GRADING. SEEDING SHALL BE DONE IN ACCORDANCE WITH THE SEEDING SPECIFICATION ON SHEET C1101. MULCH WILL BE USED IN CONJUNCTION WITH PERMANENT SEEDING. IN ALL SEEDING OPERATIONS, SEED, FERTILIZER, AND LIME WILL BE APPLIED PRIOR TO MULCHING.

STORMWATER MANAGEMENT

THE PROJECT IS LOCATED WITHIN THE CITY OF RICHMOND COMBINED SEWER AREA, THEREFORE VSMP REGULATIONS DO NOT APPLY. THE PROJECT COMPLIES WITH THE CITY OF RICHMOND REQUIREMENT TO RELEASE A POST-DEVELOPED PEAK FLOW RATE FOR THE 10-YEAR 24-HOUR STORM EVENT THAT IS LESS THAN THE PRE-DEVELOPED PEAK FLOW RATE FROM THE 10-YEAR 24-HOUR STORM EVENT.



THINKING BEYOND THE CONCRETE.

411 E. FRANKLIN STREET, SUITE RICHMOND, VA 23219 PHONE: 804.282.5300

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Draper Aden Associates

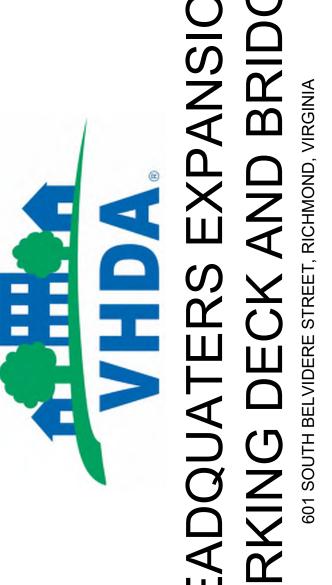
Engineering · Surveying · Environmental Services











ISSUE LOG SPECIAL USE PERMIT 4/14/2020 CITY COMMENTS 7/31/2020 CITY COMMENTS 10/14/2020

DATE NO

Lic. No. 36359 10/14/2020

Sheet Name: EROSION CONTROL NOTES

Sheet Number:

DESCRIPTION

PURPOSE

9VAC25-870-54 of the Virginia Stormwater Management Program (VSMP) Permit Regulations requires that Stormwater Pollution Prevention Plan (SWPPP) be developed for all regulated land disturbing activities. The SWPPP must include, but not be limited to, an approved erosion and sediment control plan, an approved stormwater management plan, and this Pollution Prevention Plan (PPP) for regulated land disturbing activities, and a description of any additional control measures necessary to address a TMDL as applicable.

The plan for implementing pollution prevention measures during construction activities developed on this sheet must be implemented and updated as necessary. Any PPP requirements not included on this sheet must be incorporated into the SWPPP required by 9VAC25-870-54 that must be developed before land disturbance commences. This PPP identifies potential sources of pollutants that may reasonable be expected to affect the quality stormwater discharges from the construction site (both on- and off-site activities) and describes control measures that will be used to minimize pollutants in stormwater discharges from the construction site.

OTHER REFERENCED PLANS

SWPPP requirements may be fulfilled by incorporating, by reference, other plans. All plans incorporated by reference become enforceable under the VSMP Permit Regulations and General Permit VAR10 for Discharges of Stormwater from Construction Activities. If a plan incorporated by reference does not contain all of the required elements of the PPP, the operator must develop the missing elements and include them in the SWPPP.

Independent Plans Incorporated by Reference	Date Approve
Stormwater Management Plans (Regional or Master)	N/A
Spill Prevention, Control, and Countermeasure Plans	N/A
Off-Site Stockpile	N/A
Off-Site Borrow Area	N/A

POTENTIAL POLLUTANT SOURCES

The following sources of potential pollutants must be addressed in the Pollution Prevention Plan. Various controls and/or measures designed to prevent and/or minimize pollutants in stormwater discharges from the project site must be applied to the sources found on the site. Additional information concerning the following controls and/or measures may be found in the SWPPP. Deviations from the location criteria may be approved by the City of Richmond Site Inspector.

LEAKS, SPILLS, AND OTHER RELEASES

- ✓ The operator(s) shall ensure procedures are in place to prevent and respond to all leaks, spills and other releases of pollutants.
- ✓ The operator(s) shall ensure all leaks, spills and other releases of pollutant are contained and cleaned immediately upon discovery. Any contaminated materials are to be disposed in accordance with federal, state, and/or local requirements.
- ✓ The operator(s) shall ensure spill containment kits containing appropriate materials (e.g., absorbent material and pads, brooms, gloves, sand, etc.) are available at appropriate locations, including, but not limited to: designated areas for vehicle and equipment maintenance; vehicle and equipment fueling; storage and disposal of construction materials, products, and waste; and storage and disposal of hazardous and toxic materials; and sanitary waste facilities.
- ✓ The locations of the spill containment kits are identified as described below:

Date	Shown on Plan Sheet #(s)	Location	
Approved Plan	N/A	BROUGHT TO SITE DAILY BY CO	NTRACTO
		REVISIONS TO LOCATIONS	
Date	Shown on Plan Sheet #(s)	Location	Operator(s Initials

- The operator(s) shall notify the Department of Environmental Quality of leaks, spills, and other releases that discharge to or have the potential to discharge to surface waters immediately upon discovery of the discharge but in no case later than 24
- The operator(s) shall notify the Department of Environmental Quality (DEQ) of leaks, DEQ and the

to or have the potential to dischary of the discharge but in no case late the discharge must be sent to DEQ a tilities within five (5) days of the disco
City of Richmond Department of Public Utilities Water Resources
730 East Broad Street, 6th Floo
Richmond, VA 23219
(804) 646-7586 (phone)

EQUIPMENT / VEHICLE WASHING

- Washing must be conducted in a dedicated area that is located to maximize the distance from storm drain inlets, ditches, waterbodies or wetlands but no less than 50 feet from those features.
- ✓ All wash water used in vehicle wheel washing must be directed to a sediment
- ✓ All vehicle washing activities other than wheel washing must have secondary.
- ✓ Each facility must have appropriate signage to inform users where the dedicated.

Activity	Location of Dedicated Area(s)	Shown on Plan Sheet #(s)	Water Sou Location	
Wheel Wash	N/A			
Other Wash Areas	N/A			
	REVISIO	NS TO LOCAT	IONS	
Activity	Location of Dedicated Area(s)	Shown on Plan Sheet #(s)	Water Source Location	Operator's Initials

VEHICLE FUELING AND MAINTENANCE

- ✓ Conduct regular maintenance in a dedicated area that is located to maximize the distance from storm drain inlets, ditches, waterbodies or wetlands but no less than
- ✓ If fueling is conducted at a dedicated area, the location must be located to maximize the distance from storm drain inlets, ditches, waterbodies or wetlands but

50 feet from those features.

- no less than 50 feet from those features. ✓ The dedicated areas must be designed to eliminate the discharge of spilled and... leaked fuels and chemicals from vehicle fueling and maintenance activities by
- providing secondary containment (spill berms, decks, spill containment pallets, providing cover where appropriate, and having spill kits readily available). ✓ Each facility must have appropriate signage to inform users where the dedicated. area(s) are located

Date	Shown on Plan Sheet #(s)	Location of Dedicated Area(s)
Approved Plan		N/A	
	F	REVISIONS TO LOCATIONS	
Date	Shown on Plan Sheet #(s)	Location of Dedicated Area(s)	Operator's Initials

- ✓ If mobile fueling will be used, the fueling must be done in an area that located to maximize the distance from storm drain inlets, ditches, waterbodies or wetlands but no less than 50 feet from those features.
- ✓ Spill kits must be readily available at all mobile fueling locations.
- ✓ On-site storage tanks must have a means of secondary containment (spill berms,) decks, spill containment pallets, etc.) and must be covered where appropriate.
- ✓ All vehicles on site must be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage.

DISCHARGE FROM STORAGE, HANDLING, AND DISPOSAL OF CONSTRUCTION PRODUCTS, MATERIALS, AND WASTE

- ✓ Storage of construction products, materials, and waste is to be conducted in dedicated areas. ✓ The dedicated area must be located to maximize the distance from storm drain. inlets, ditches, waterbodies or wetlands but no less than 50 feet from those features. Separations of less than 50 feet may be approved by the Environmental Inspector.
- storage, handling, and disposal of construction products, materials and wastes including (i) building products such as asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures; (ii) pesticides, herbicides, insecticides, fertilizers, and landscape materials; and (iii) construction and domestic wastes such as packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, Styrofoam, concrete and other trash or building

▼ The dedicated areas must be designed to minimize the discharge of pollutants from

✓ Each facility must have appropriate signage to inform users where the dedicated

Plan Sheet #(s)	Location(s) of Dedicated Area(s) for storage of products and materials	construction
C301	NORTHWESTERN PORTION OF	SITE
	REVISIONS TO LOCATIONS	
Shown on Plan Sheet #(s)	Location(s) of Dedicated Area(s) for storage of construction products and materials	Operator(s) Initials
	#(s) C301 Shown on Plan Sheet	#(s) products and materials C301 NORTHWESTERN PORTION OF REVISIONS TO LOCATIONS Shown on Plan Sheet of construction products and materials

1 Nat	Date	Shown on Plan Sheet	REVISIONS TO LOCATIONS Location(s) of <i>Dedicated Area(s)</i> for waste from construction products and materials Operate Initia	
riai	riaii		REVISIONS TO LOCATIONS	
Approved C301 NORTHWESTERN PORTION OF SITE		C301	NORTHWESTERN PORTION OF SITE	

- ✓ Follow all federal, state, and local requirements that apply to the use, handling and.
- disposal of pesticides, herbicides, and fertilizers. ✓ Keep chemicals on-site in small quantities and in closed, well marked containers. ✓ Clean up solid waste, including building materials, garbage, and debris on a daily
- basis and deposit into covered dumpsters that are periodically emptied. ✓ Schedule waste collection to prevent exceeding the capacity of onsite containers. Additional containers may be necessary depending on the phase of construction (e.g., demolition, etc.)
- Dispose of all solid waste at an authorized disposal site. ✓ Ensure that containers have lids or are otherwise protected from exposure to

DISCHARGES FROM OTHER POTENTIAL POLLUTANT

✓ Discharges from other pollutant sources (e.g., water line flushing, storm sewer flushing, above ground storage tanks, etc.) not mentioned elsewhere must be addressed.

Other Potential Pollutant Sources	Location(s) of Potential Pollutant Sources

- ✓ Above ground oil storage tanks with a storage capacity exceeding 1,320 gallons and have a reasonable expectation of a discharge into or upon Waters of the United States are required to have a Spill Prevention Control and Countermeasure (SPCC)
- ✓ The discharge of contaminated flush water and material removed during flushing. operations must be collected and disposed of in accordance with appropriate federal, state, and local requirements.

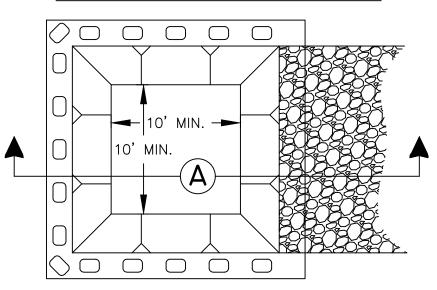
DISCHARGES FROM CONCRETE RELATED WASH ACTIVITIES

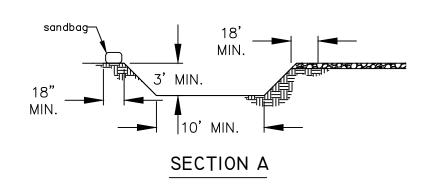
- ✓ Concrete trucks are not allowed to wash out or discharge surplus concrete or drum. wash water on site except in a dedicated area(s) that is located to prevent discharge to storm drain inlets, ditches, waterbodies or wetlands but no less than 50 feet from those features.
- ✓ Each facility must have a stabilized access to prevent mud tracking into the street. ✓ Each facility must have appropriate signage to inform users where the dedicated. area(s) are located.

Date	Shown on Plan Sheet #(s)	Location of Dedicated Area(s)
Approved Plan	C301	NORTHWESTERN PORTION (F SITE
	F	REVISIONS TO LOCATIONS	
Date	Shown on Plan Sheet #(s)	Location of Dedicated Area(s)	Operator's Initials

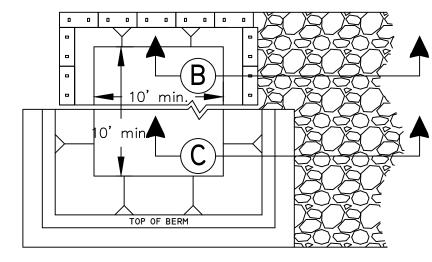
✓ Facilities must be cleaned, or new facilities constructed, once the washout area is two-thirds (2/3) full.

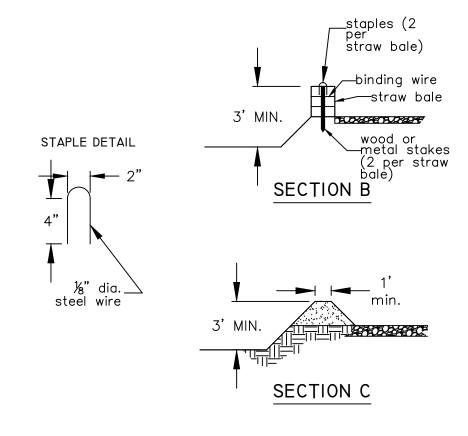
BELOW GRADE CONCRETE WASHOUT AREA





ABOVE GRADE CONCRETE WASHOUT AREA





CONCRETE WASHOUT AREA NOTES

- The facility must be lined with 10 mil plastic lining that is free from holes, tears, or other defects that might compromise the material's impermeability.
- The lining must be anchored with staples (2' spacing) or sandbags.
- ✓ Side slopes must be 1:1 (horizontal:vertical) or flatter.
- Stone access must be provided between the street and the concrete washout area. ✓ A "Concrete Washout" sign must be installed within 30 feet of the washout facility.
- The sign must be no smaller than 2' tall by 4' wide.

DISCHARGES OF SOAPS, DETERGENTS, SOLVENTS, AND WASH WATER FROM CONSTRUCTION ACTIVITIES SUCH AS CLEANUP OF STUCCO, PAINT, FORM RELEASE OILS, AND CURING COMPOUNDS

- ✓ Washing activities associated with construction activities other than vehicle and equipment washing, such as clean up of stucco, paint, form release oils, and curing
- compounds are to be conducted in a dedicated area. √ The dedicated area must be located to maximize the distance from storm drain. inlets, ditches, waterbodies or wetlands but no less than 50 feet from those features.
- Separations of less than 50 feet may be approved by the Environmental Inspector. √ The dedicated areas must be designed to prevent the discharge of soaps, detergents, solvents, and wash water.

Date	Shown on Plan Sheet #(s)	Location(s) of Dedicated Area	(s)
Approved Plan	C301	NORTHWESTERN PORTION O	F SITE
		REVISIONS TO LOCATIONS	
Date	Shown on Plan Sheet #(s)	Location(s) of <i>Dedicated Area(s)</i>	Operator(s Initials

- ✓ The dedicated area must be covered (e.g., plastic sheeting, temporary roof, etc.) to prevent contact with stormwater.
- The contaminated wastewater from the dedicated area must be collected for disposal by a waste hauler or discharged to the sanitary sewer.

disposal by a waste hauler or discharged to the sanitary sewer.

In situations where these pollutants are or could be generated at locations other than at the designated area (e.g., concrete pours, building washing, etc.), cover (e.g., plastic sheeting, temporary roof, etc.) must be provided to prevent contact with stormwater and the contaminated wastewater from the activity must be collected for

DISCHARGES OF HAZARDOUS, TOXIC, AND SANITARY WASTE

- Storage and disposal of hazardous, toxic and sanitary wastes are to be conducted in ✓ The dedicated areas must be located to maximize the distance from storm drain.
- inlets, ditches, waterbodies or wetlands but no less than 50 feet from those features. Separations of less than 50 feet may be approved by the Environmental Inspector. ✓ The dedicated areas must be designed to prevent the discharge of hazardous, toxic.
- and sanitary waste by avoiding contact with precipitation ✓ Each facility must have appropriate signage to inform users where the dedicated.

Date	Shown on Plan Sheet #(s)	Location(s) of <i>Dedicated Area(s)</i> for storage and disposal of hazardous and toxic wastes	
Approved Plan		N/A	
		REVISIONS TO LOCATIONS	
Date	Shown on Plan Sheet #(s)	Location(s) of Dedicated Area(s) for storage and disposal of hazardous and toxic wastes	Operator(s) Initials
Date	Shown on Plan Sheet #(s)	Location(s) of Dedicated Area(s) for portal	ble toilets

Date	Shown on Plan Sheet #(s)	REVISIONS TO LOCATIONS Location(s) of <i>Dedicated Area(s)</i> for portable toilets	Operator(s) Initials
pproved	C301	NORTHWESTERN PORTION (OF SITE
Date	Shown on Plan Sheet #(s)	Location(s) of Dedicated Area(s) for portal	ole toilets

- ✓ Consult with local waste management authorities or private firms about the requirements for disposing of hazardous materials and/or soils that may be contaminated with hazardous materials.
- ✓ Never remove the original product label from the container. Follow the manufacturer's recommended method of disposal.
- ✓ Schedule periodic pumping of portable toilets and dispose of waste Dispose of all solid waste at an authorized disposal site.

SWPPP MODIFICATIONS AND REVISIONS

The operator(s) shall ensure the SWPPP is modified and/or revised to reflect: ✓ Changes in qualified personnel; delegated authorities or other personnel required as a condition of the General Construction Permit;

- ✓ Changes in site conditions; ✓ Changes in the design, construction, operation, or maintenance of the construction.
- site that affect the potential for discharges of pollutants that are not addressed in the normal implementation of the plan; and ✓ Ineffective control measures identified during inspections or investigations. conducted by the operator's qualified personnel or local, state or federal officials.
- measures to address the identified deficiencies. If the necessary modifications/revisions require approval by the Administrator or DEQ, the modifications/revisions must be implemented no later than seven (7) calendar days

Modifications/revisions to the SWPPP shall include additional or modified control

If the necessary modifications/revisions do not require approval by the Administrator, the modifications/revisions must be implemented prior to the next anticipated storm event or as soon as practicable.

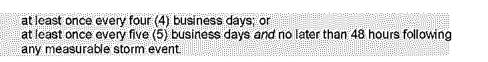
SWPPP UPDATES

The operator(s) shall update the SWPPP to include:

- ✓ A record of dates when 1) major grading activities occur, 2) construction activities temporarily or permanently cease on a portion of the site, and 3) stabilization
- measures are initiated; ✓ Documentation of modifications and revisions to the SWPPP:
- ✓ Areas that have reached final stabilization where no further SWPPP or inspection. requirements apply;
- ✓ All properties that are no longer under the legal control of the operator and the dates on which the operator no longer had legal control over each property; and ✓ The date, volume, and corrective/preventative actions implemented for any prohibited discharge.
- The operator(s) shall update the SWPPP no later than seven (7) days following any of the situations identified above.

OPERATOR INSPECTIONS

The operator(s) identified below shall provide for inspections of the permitted landdisturbing activities by the qualified personnel identified below. The inspections will be conducted (select one the following options):



Where areas are in a stabilized condition or runoff is unlikely due to winter conditions, the inspection frequency may be reduced to once every 30 days while these conditions exist. Otherwise, the operator(s) shall resume the regular inspection frequency identified above.

The operator(s) shall provide for inspections of the permitted land-disturbing activity to ensure implementation and continued maintenance of all requirements of the Stormwater Pollution Prevention Plan (Erosion and Sediment Control Plan, Stormwater Management Plan, Pollution Prevention Plan, TMDL requirements, etc.).

Records of the required inspections must be maintained and included in the SWPPP binder. The qualified personnel are encouraged to use the Operator Inspection form provided in the SWPPP binder to document the required inspections. If inspections are conducted once every five (5) business days and no later than 48 hours following any measureable storm event, the location of the rain gauge used to determine the amount of rain must be included in the SWPPP and documented in the inspection report.

ACKNOWLEDGEMENTS

I certify under penalty of law that I:

- a. have been designated by the Operator to conduct inspections of the
- permitted site; b. am knowledgeable in the principles and practices of erosion and
- sediment control and stormwater management: possess the skills to assess conditions at the permitted site for the
- Operator(s) that could impact stormwater quality and quantity; d. will assess the effectiveness of any erosion and sediment control
- measures or stormwater management facilities selected to control the stormwater discharges from the permitted site; and will conduct inspections in accordance with the frequency noted above in the OPERATOR INSPECTIONS section of this sheet.

QUALIFIED PERSONNEL Name (print) Phone Additional information is located in Tab 6 of the SWPPP Binder

As the Operator(s), I/we understand that prior to initiating land disturbance, the potential pollutant sources, appropriate control measures, and all responsible parties (operator, qualified inspection personnel, contractors, etc.) required as a condition of the General Construction Permit (GCP) and the Stormwater Pollution Prevention Plan (SWPPP) must be identified. I also understand this information must be updated as necessary throughout all phases of construction until the GCP is terminated. Furthermore,

the SWPPP (erosion and sediment control plan, stormwater management plan, pollution prevention plan, TMDL provisions, administrative requirements, etc.) and GCP and that the information herein is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations. I/we understand that I/we are ultimately responsible for compliance with all conditions

I/we certify under penalty of law that I/we have read and understand all requirements of

subcontractors on the permitted site are aware of the conditions and requirements of the SWPPP and GCP. I/we shall comply with all conditions and requirements of the SWPPP and shall at all times properly operate and maintain all measures and control (and related appurtenances) which are installed or used to achieve compliance with the conditions of

the GCP. Proper opration and maintenance also includes adequate funding and

and requirements of the SWPPP and GCP and for ensuring all contractors and

adequate staffing. I/we shall take all reasonable steps to minimize or prevent any discharge in violation of the SWPPP and/or GCP.

I/we understand that if it determined by the Department of Environmental Quality (DEQ) in consultation with the State Water Control Board at any time that stormwater discharges are causing, have reasonable potential to cause, or contribute to and excursion above any applicable water quality standard, the DEQ may, in consultation with the Administrator, take appropriate enforcement action and require:

Submission of valid and verifiable data and information that are representative of ambient conditions and indicate that the receiving water is

a. Modification of control measures to adequately address water quality

attaining water quality standards; or Cessation of discharges of pollutants from construction activity and submit an individual permit application according to 9VAC25-870-410.

Name (print) Signature Additional contact information can be found in the SWPPP Binder

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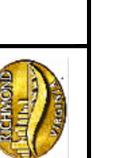
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411 E. FRANKLIN STREET. SUITE

RICHMOND, VA 23219 PHONE: 804.282.5300

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ISSUE LOG SPECIAL USE PERMIT 4/14/2020 CITY COMMENTS 7/31/2020 CITY COMMENTS 10/14/2020

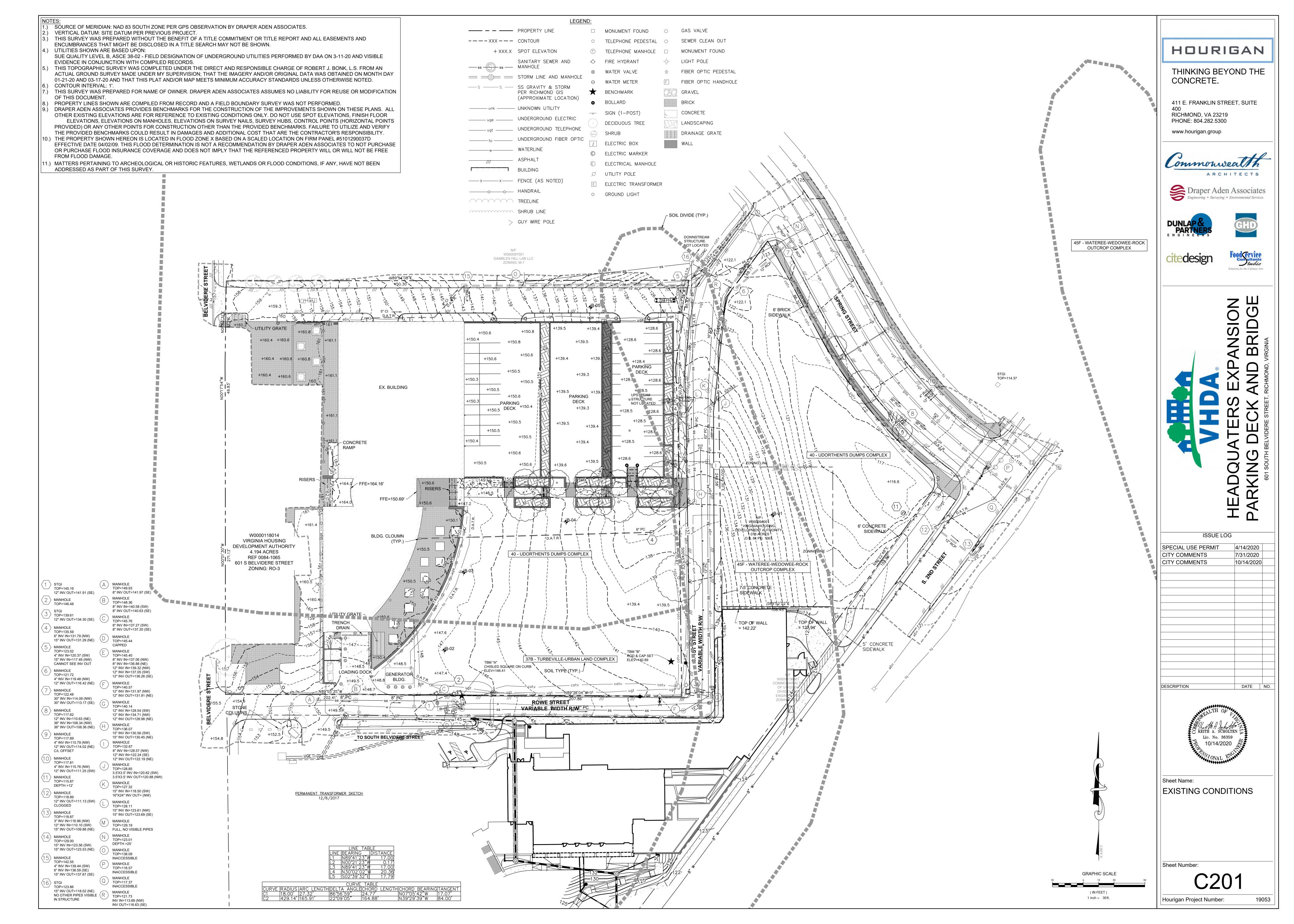
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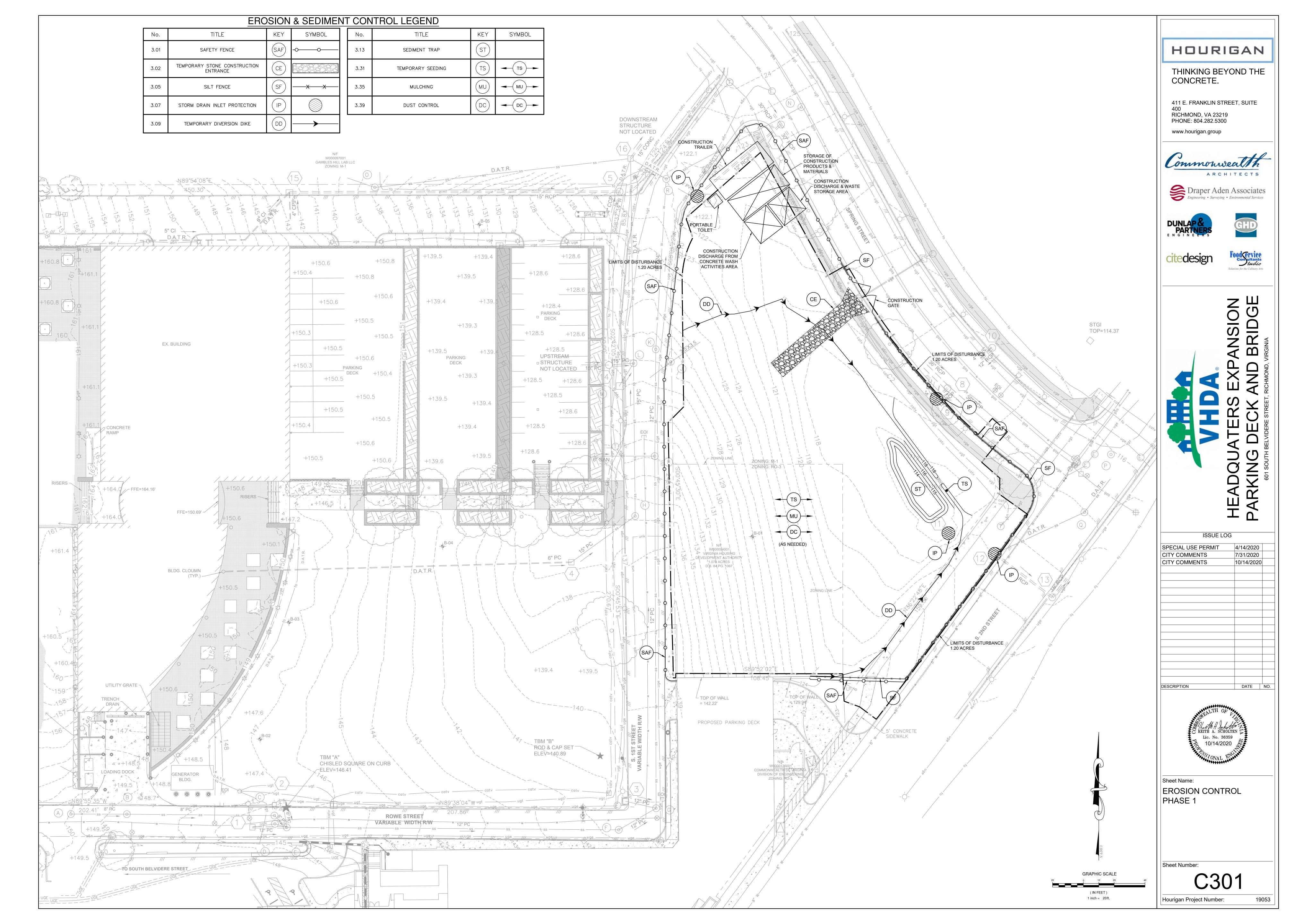


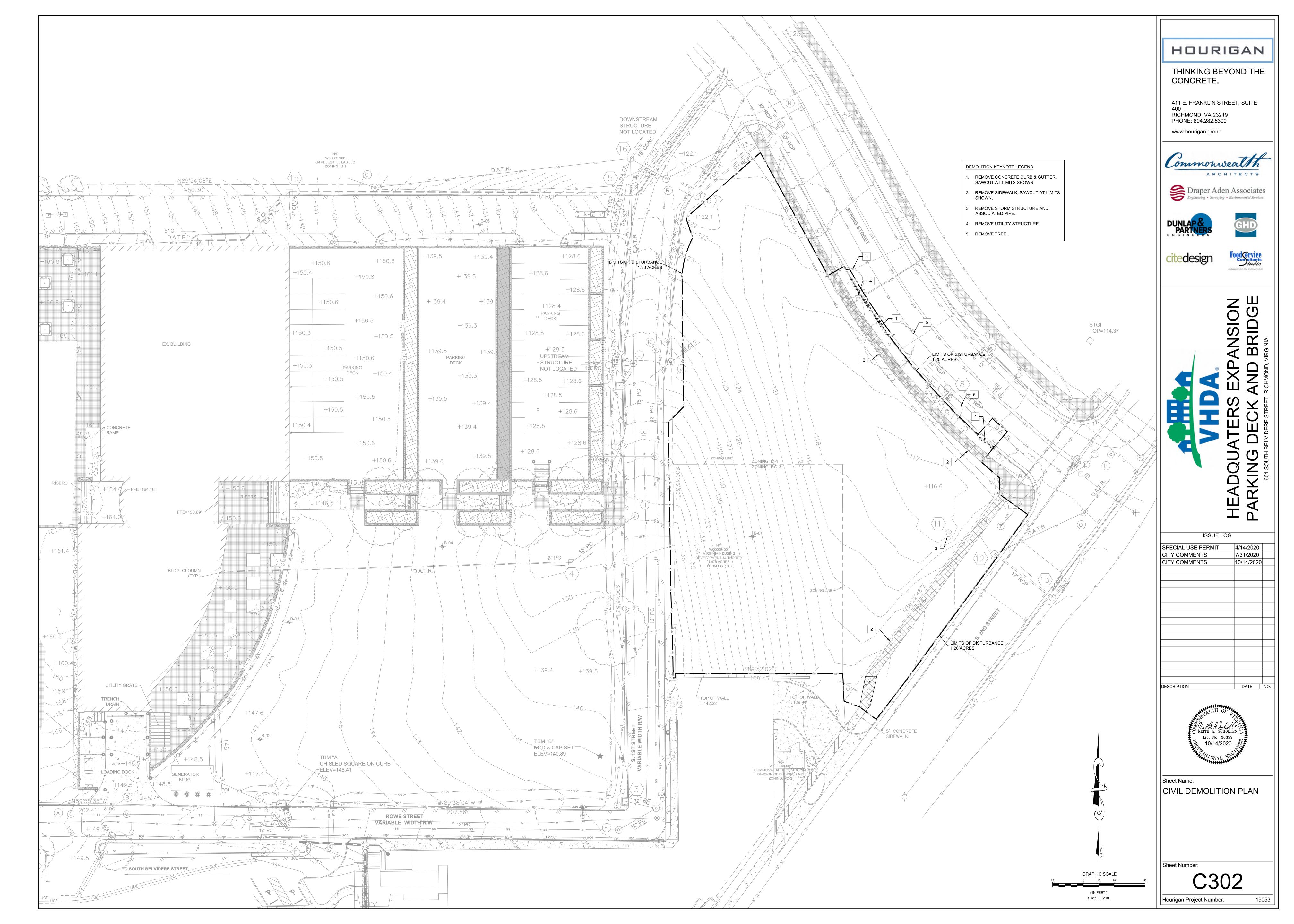
Sheet Name: POLLUTION PREVENTION PLAN

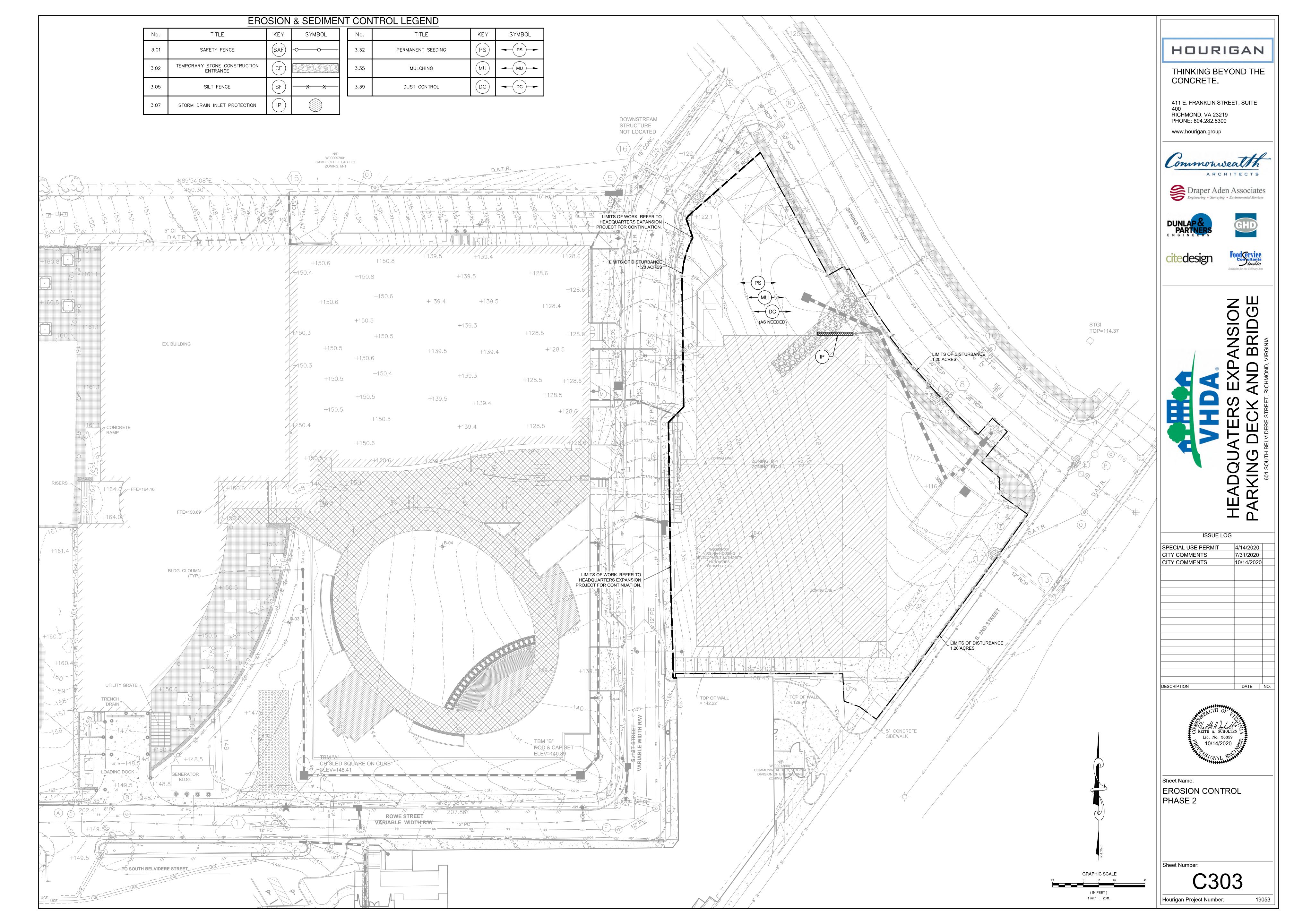
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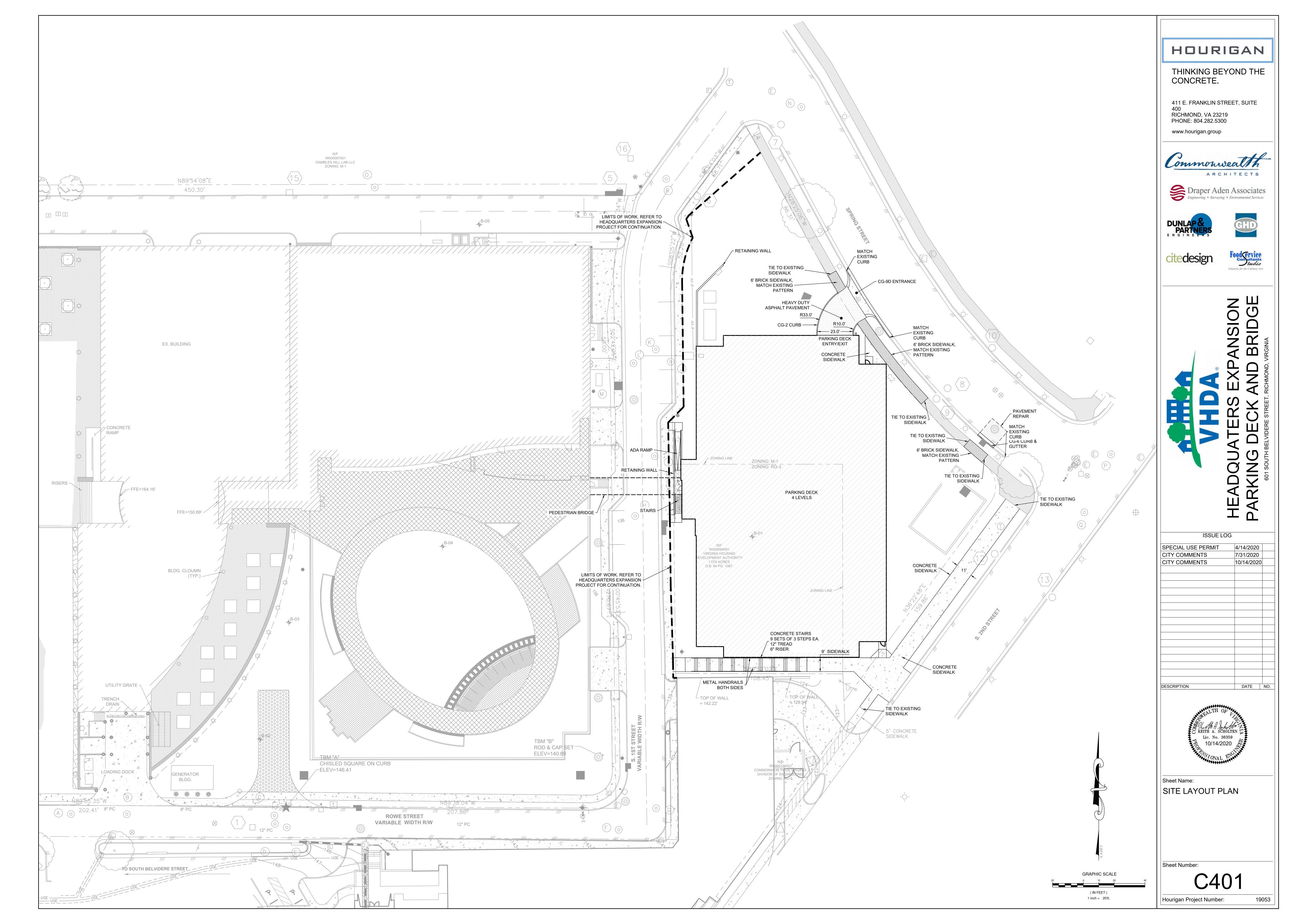
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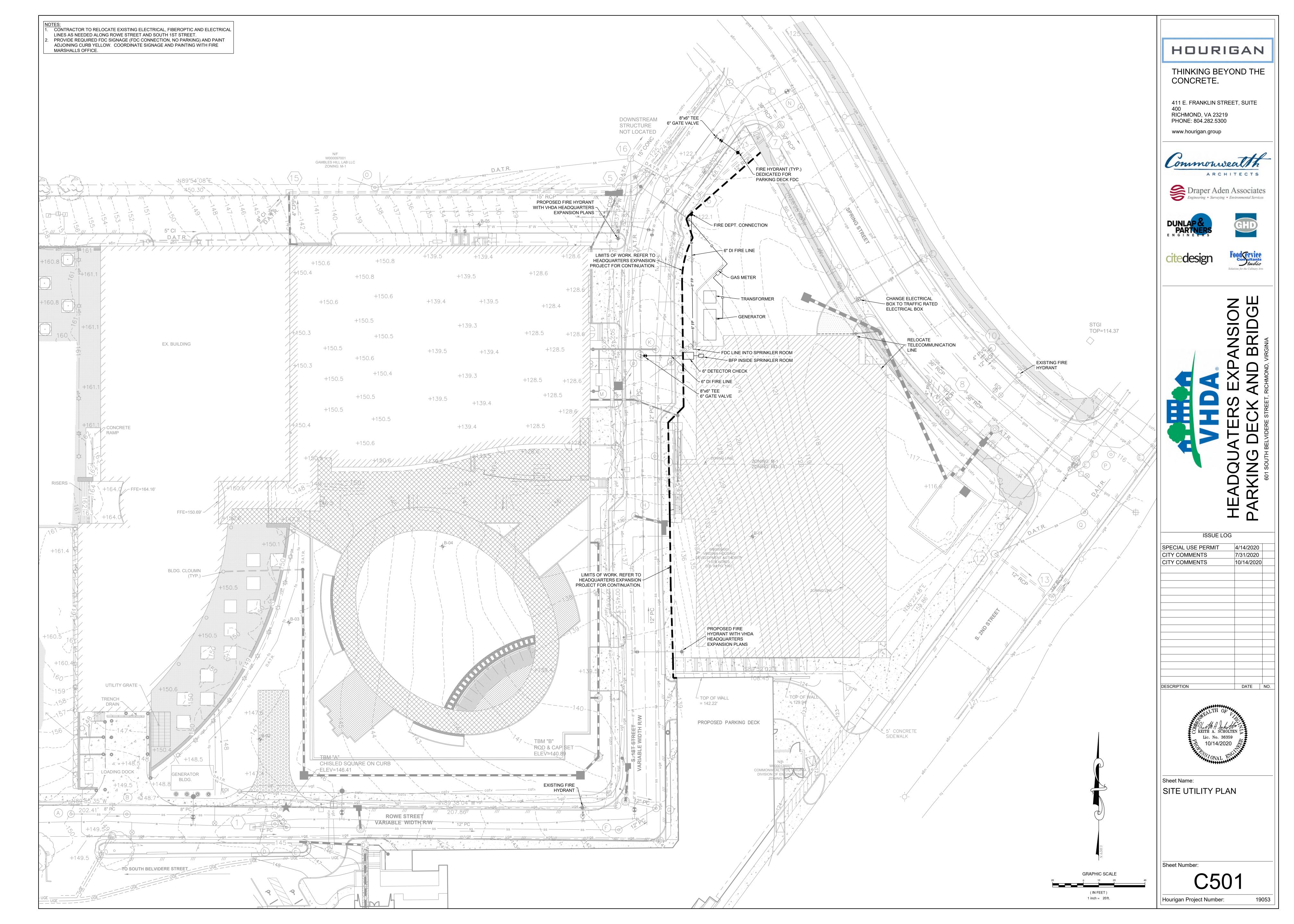


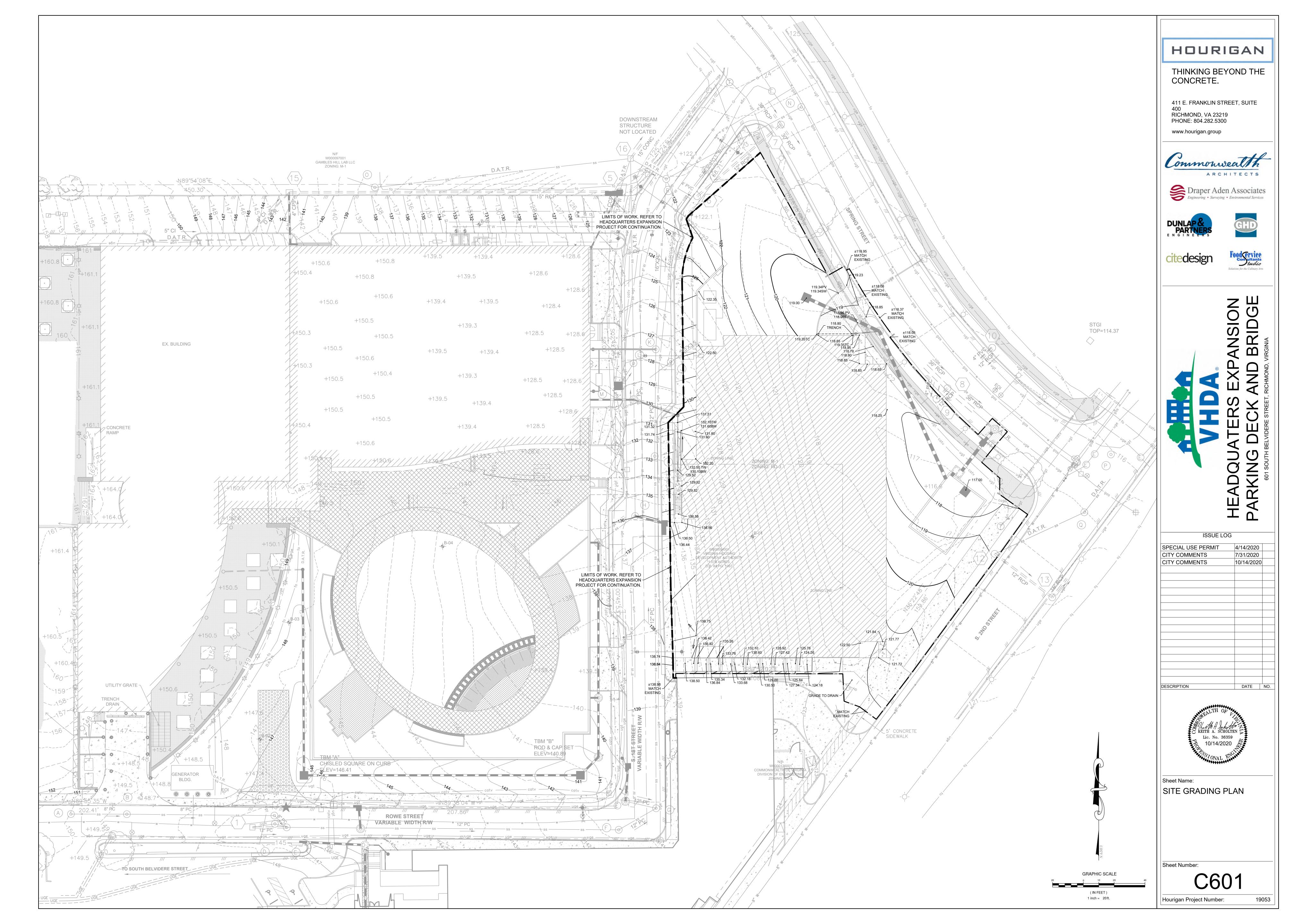


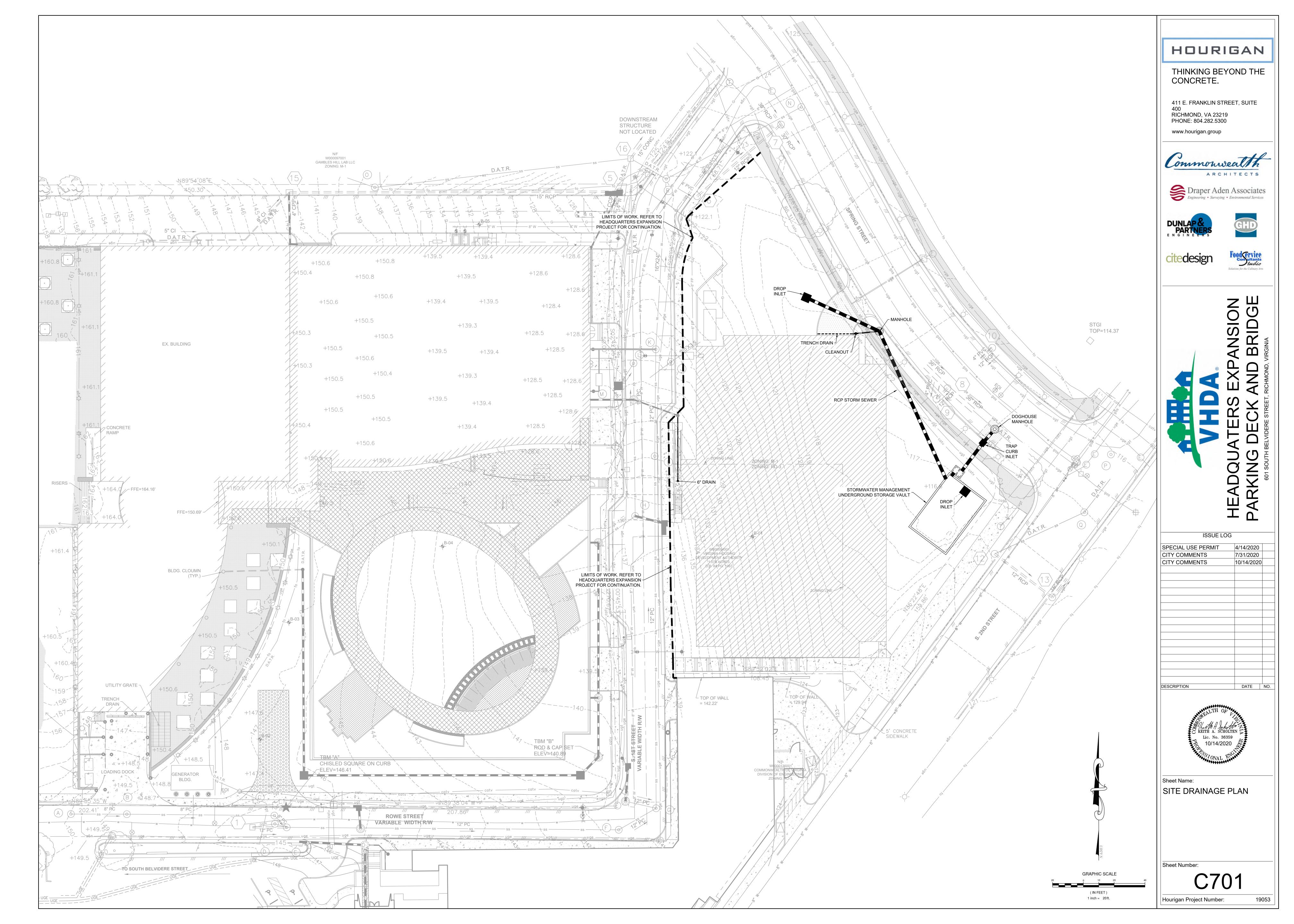


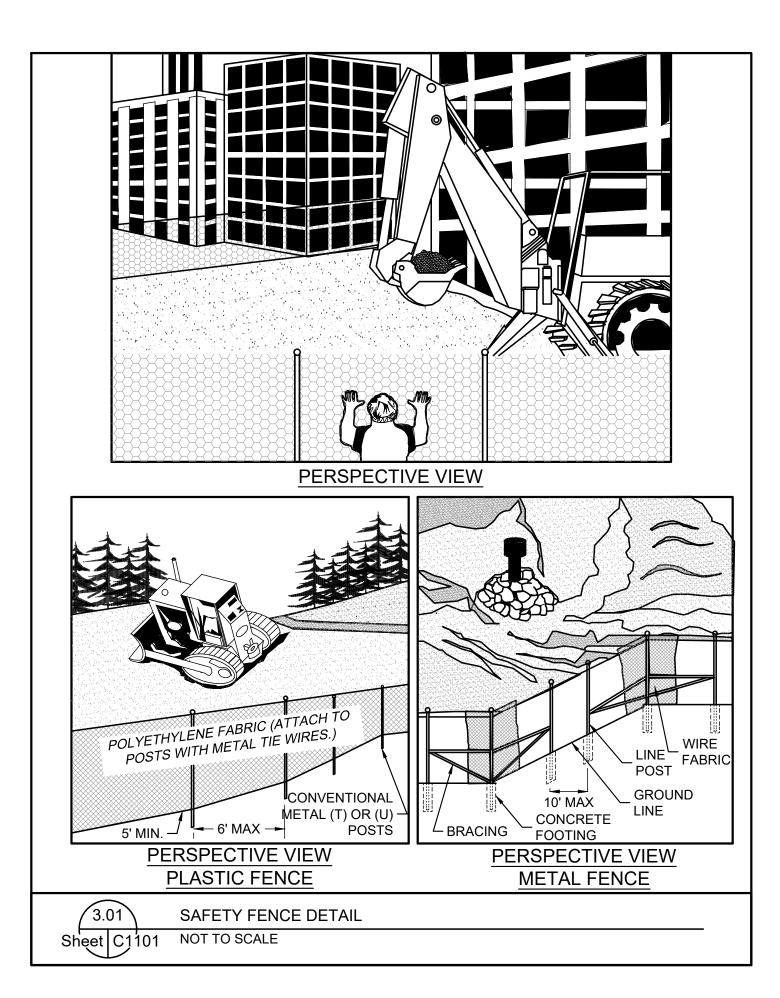


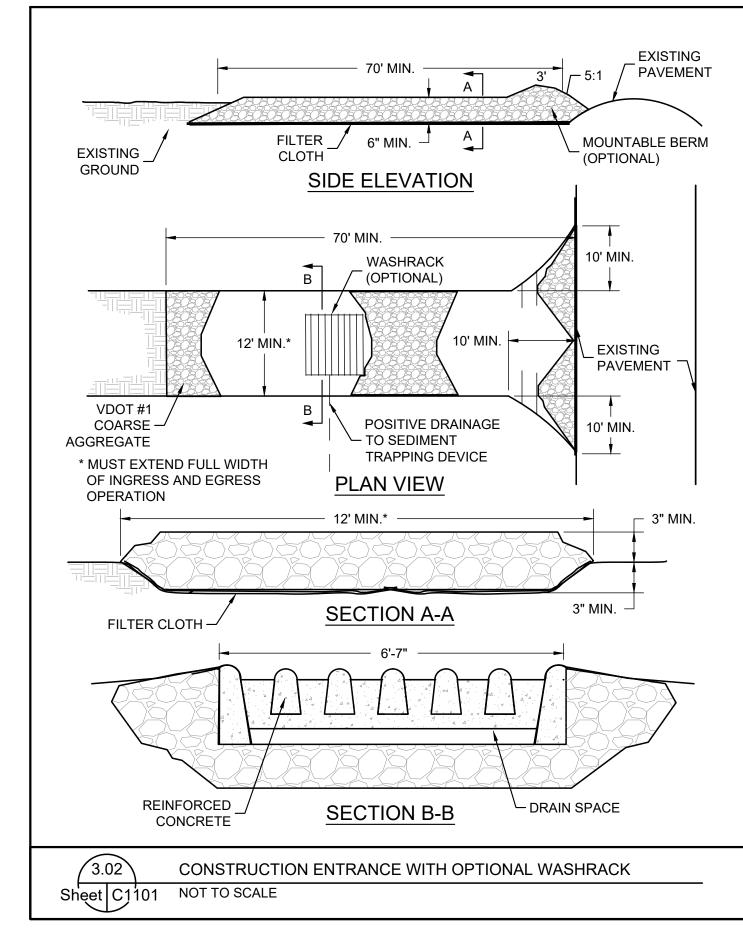


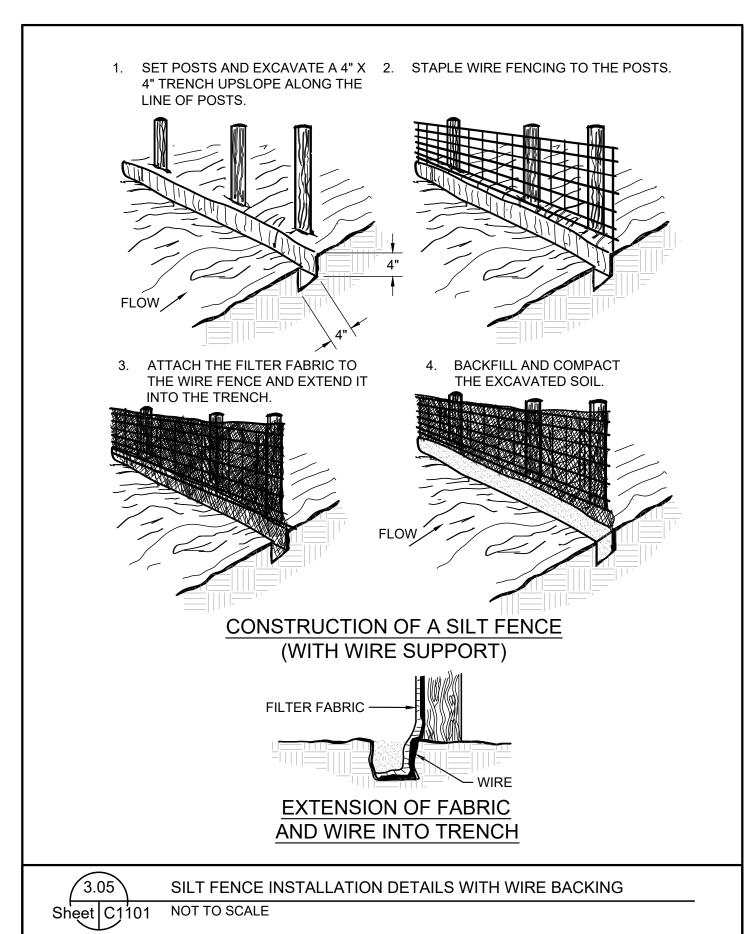


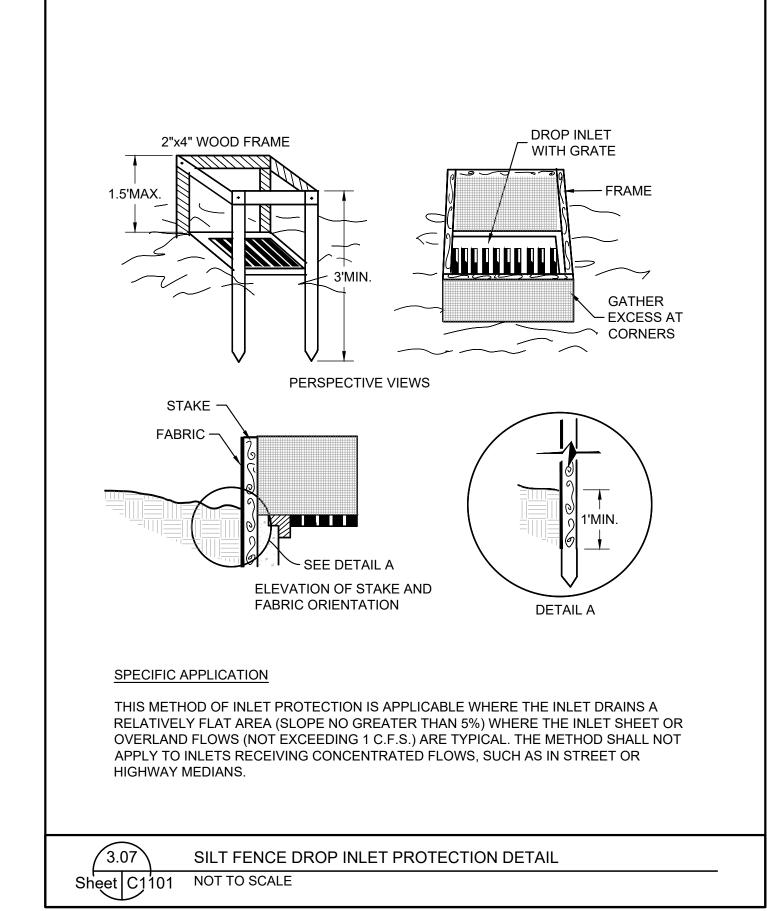


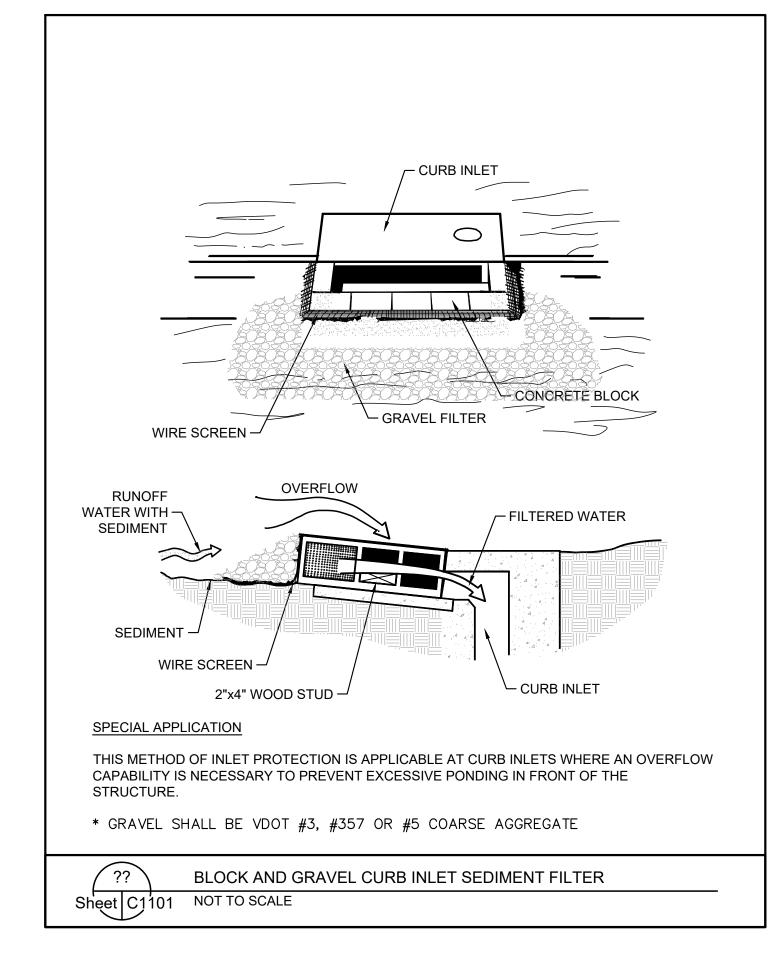


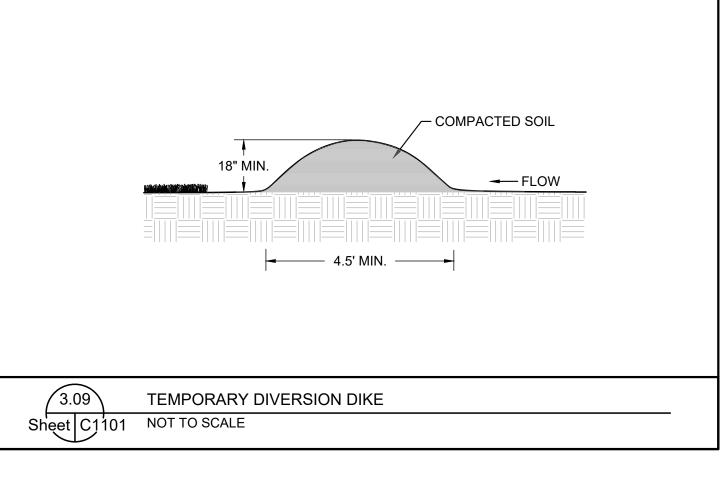




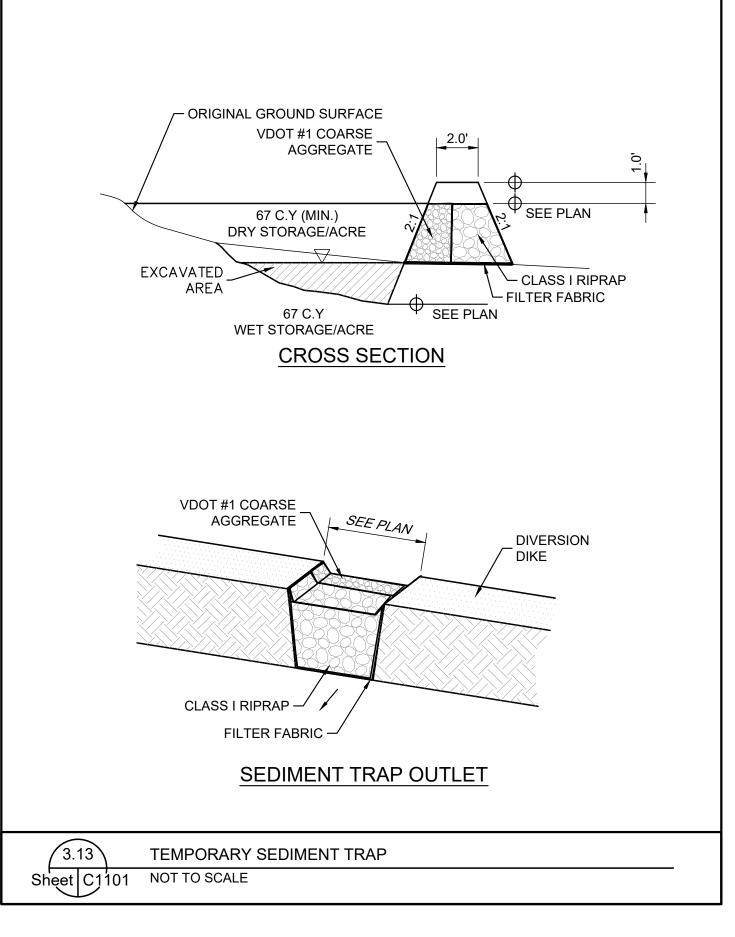




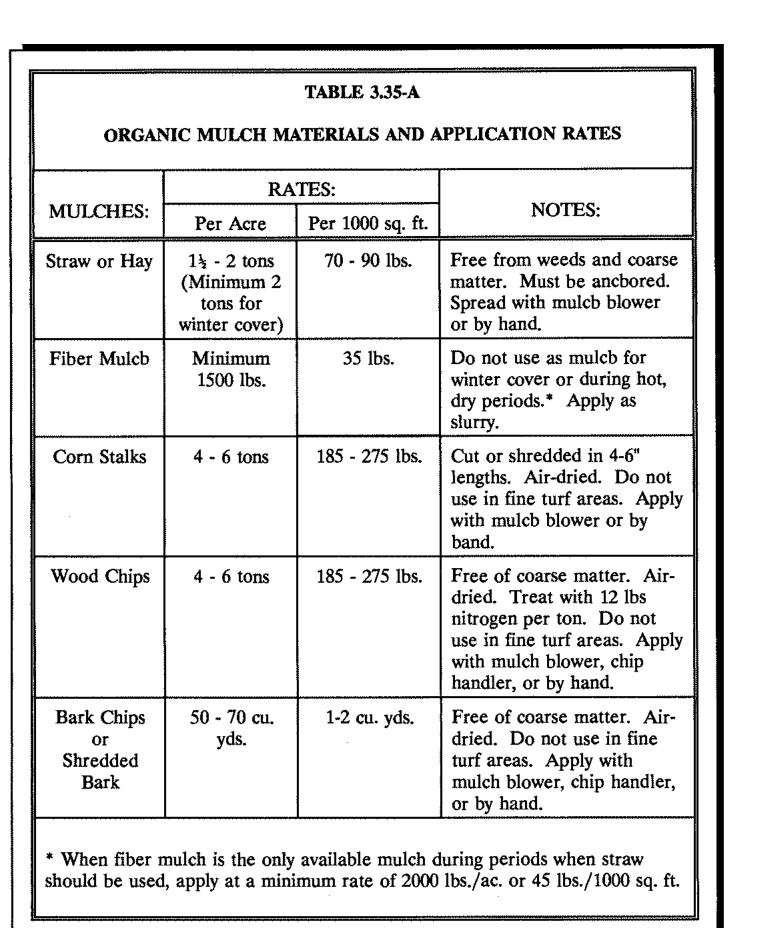




SEED1				
LAND USE	SPECIES	APPLICATION RATES		
Minimum Care Lawn (Commercial or Residential)	Tall Fescue ¹ or Bermudagrass ¹	175 - 200 lbs		
High-Maintenance Lawn	Tall Fescue ¹	200-250 lbs		
	or Bermudagrass ¹ (seed) or Bermudagrass ¹ (by other vegetative establishment method, see Std. & Spec. 3.34)	40 lbs. (unhulled 30 lbs. (hulled		
	Tall Fescue ¹	128 lbs		
General Slope (3:1 or less)	Red Top Grass or Creeping Red Fescue	2 lbs		
Serieral Grope (S. For less)	Seasonal Nurse Crop ²	20 lbs TOTAL: 150 lbs		
	Tall Fescue ¹	93-108 lbs		
	Bermudagrass ¹	0-15 lbs		
(Steeper than 3:1)	Red Top Grass or Creeping Red Fescue	2 lbs		
(Steeper thair 5.1)	Seasonal Nurse Crop ²	20 lbs 20 lbs		
	Sericea Lespedeza ³	TOTAL: 150 lbs		
variety list is available at the lo http://sudan.cses.vt.edu/html// 2 - Use seasonal nurse crop in 3 - May through October, use	eed will bear a label indicating that they are appro- cal County Extension office or through VCIA at 80 Furf/turf/publications/publications2 html n accordance with seeding dates as stated below: February, March - April May 1 st - August September, October - November 15 th November 16 th - January hulled seed. All other seeding periods, use unhullow maintenance mixture during warmer seeding p	Annual Rye Foxtail Millet Annual Rye Winter Rye ed seed. If Weeping Lovegrass is		
	FERTILIZER & LIME			
	tilizer at a rate of 500 lbs. / acre (or 12 lbs. / 1,000	saft)		



SEED				
APPLICATION DATES	SPECIES	APPLICATION RATES		
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (Iolium multi- florum) & Cereal (Winter) Rye (Secale cereale)	50 -100 (lbs/acre)		
Feb. 16 - Apr. 30	Annual Ryegrass (Iolium multi-florum)	60 - 100 (lbs/acre)		
May 1 - Aug. 31	German Millet	50 (lbs/acre)		
	FERTILIZER & LIME			
Apply 10 10:	FERTILIZER & LIME 10 fertilizer at a rate of 450 lbs. / acre (or 10 lbs. / 1,0	CO en (t.)		





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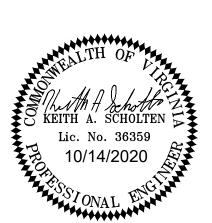




ISSUE LOG

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CITY COMMENTS 7/31/2020
CITY COMMENTS 10/14/2020

DESCRIPTION DATE NO.



Sheet Name:

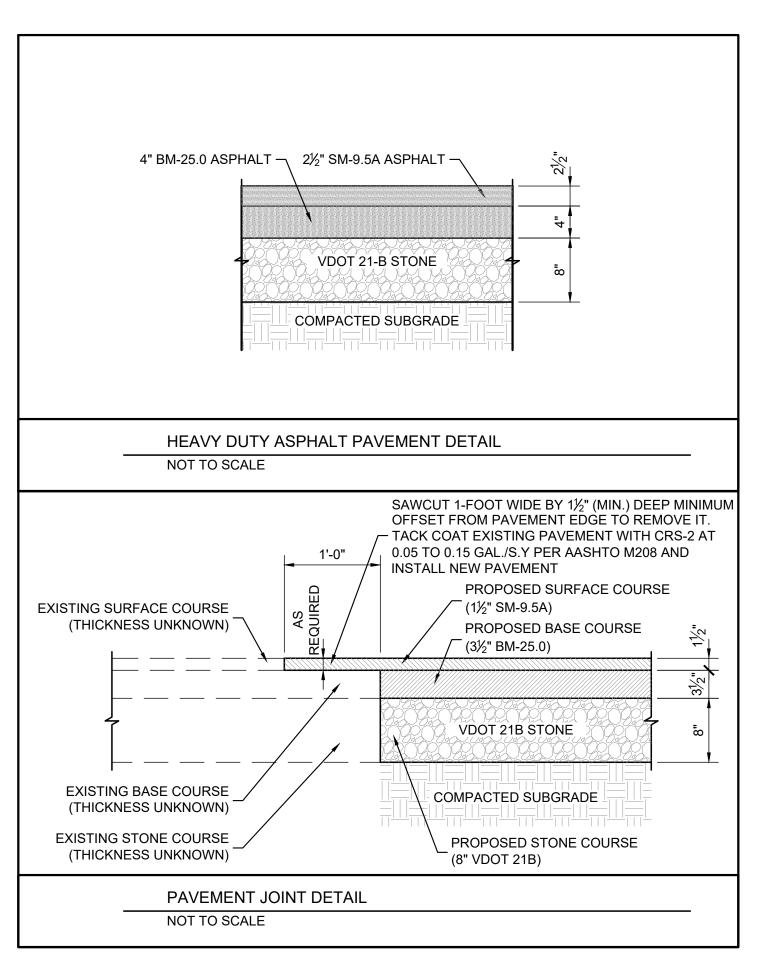
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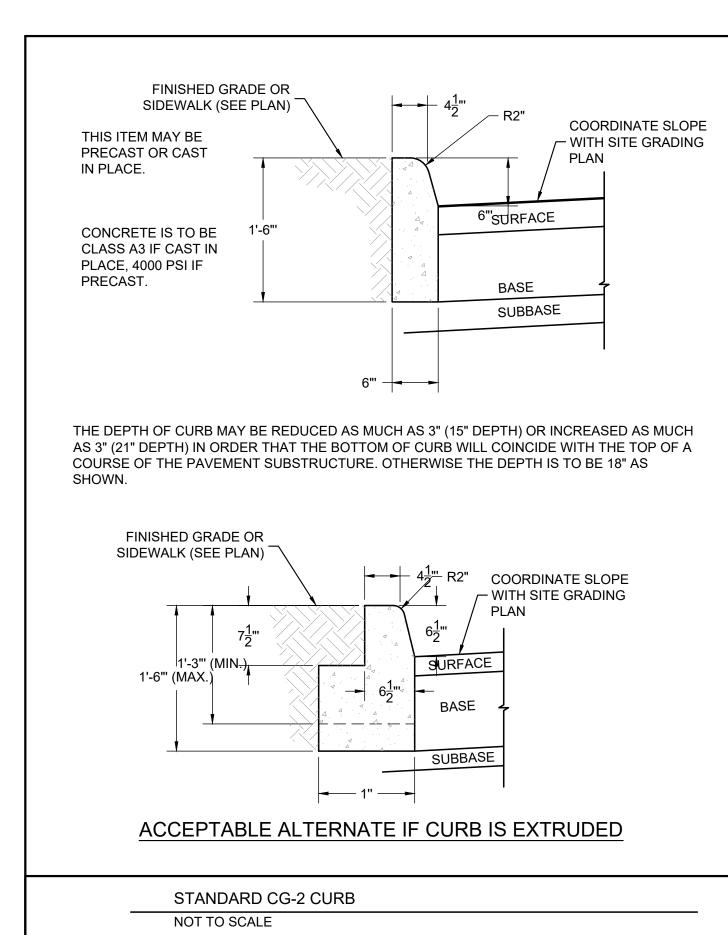
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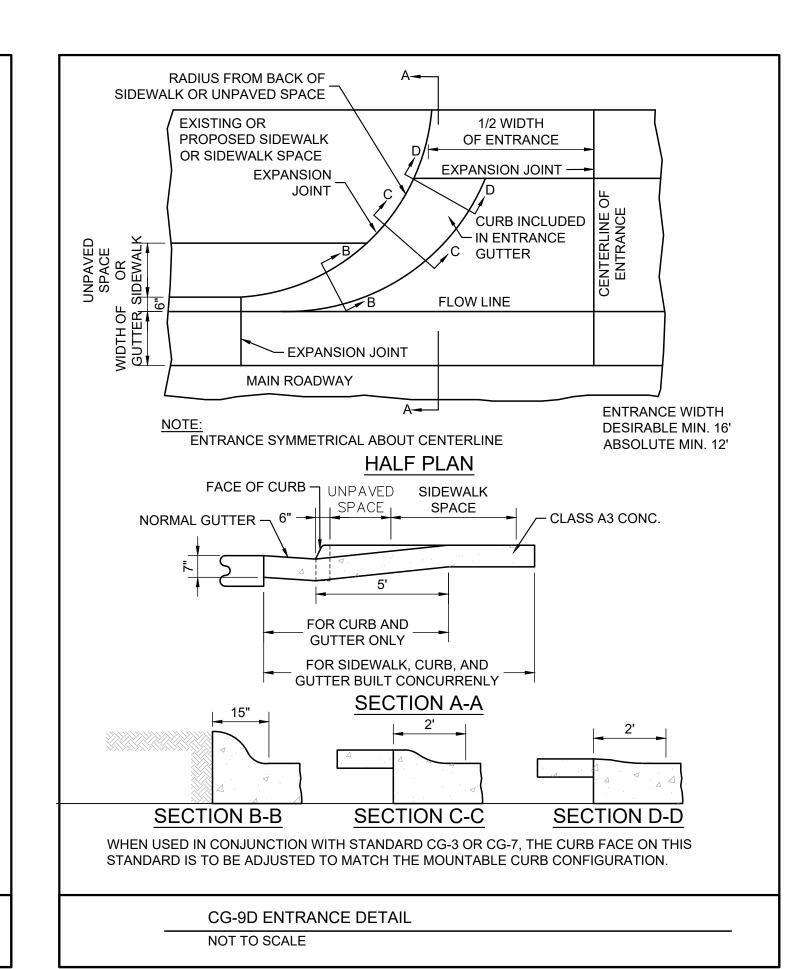
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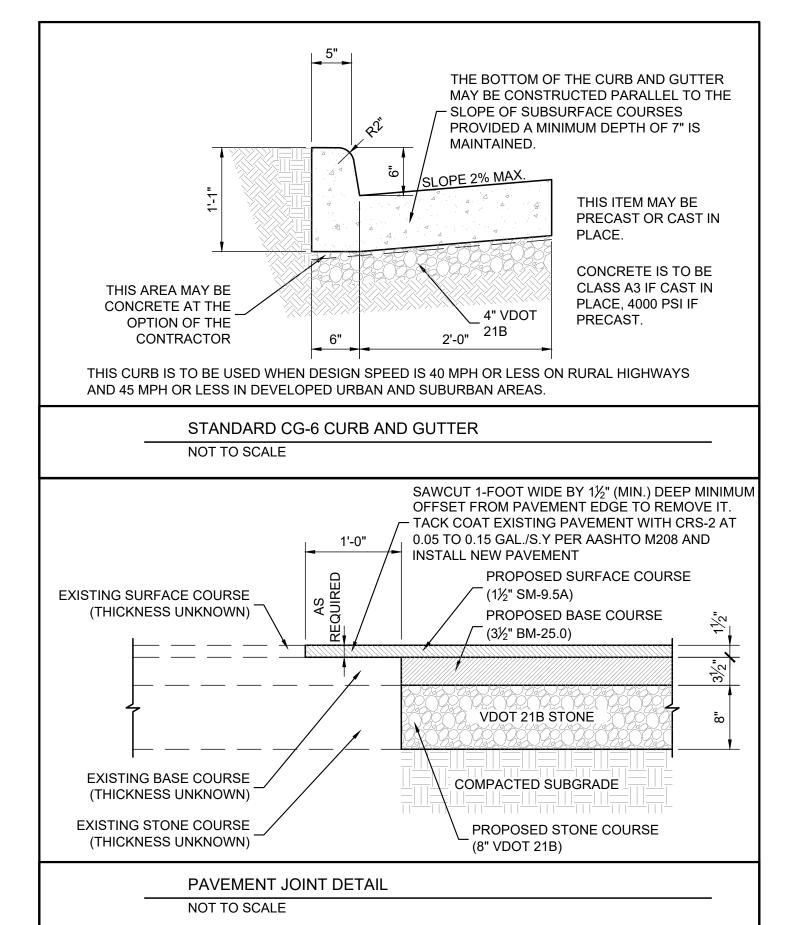
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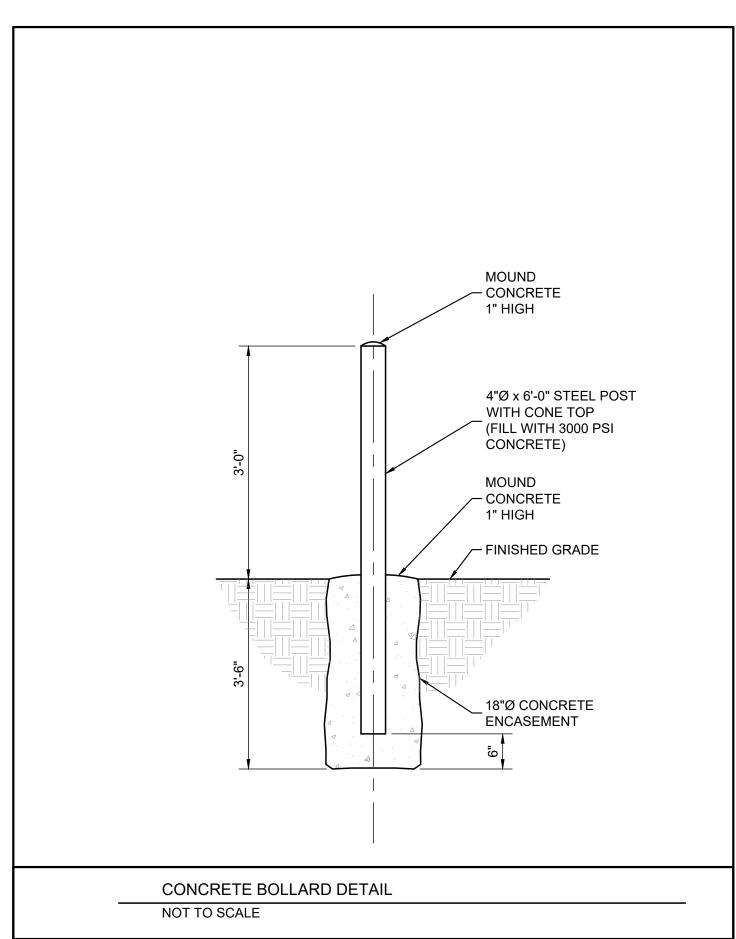
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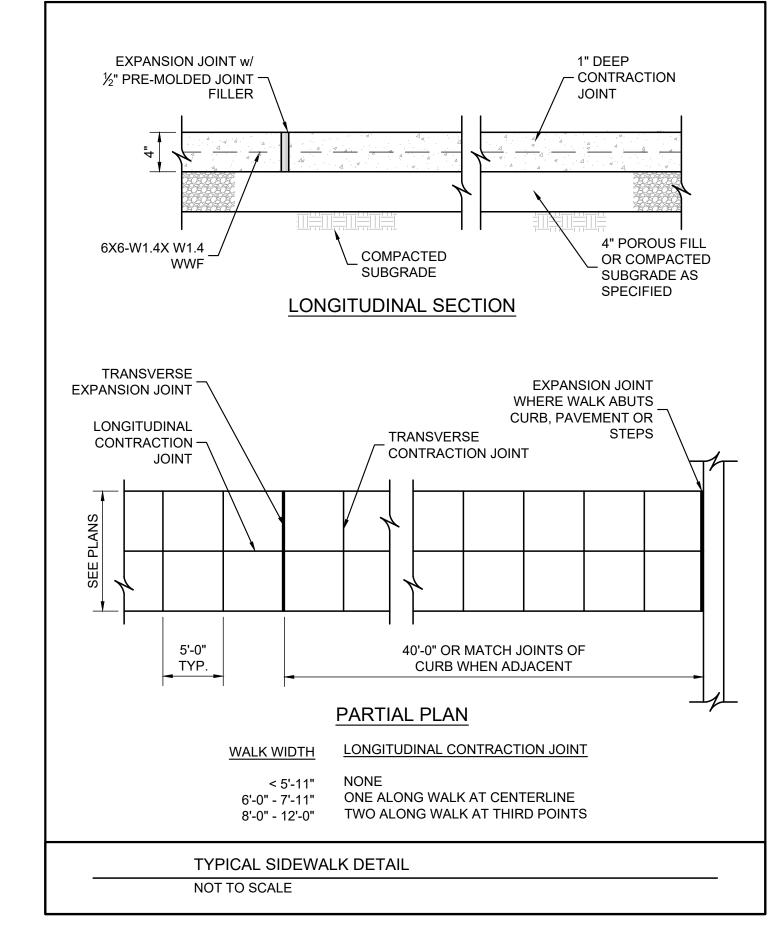














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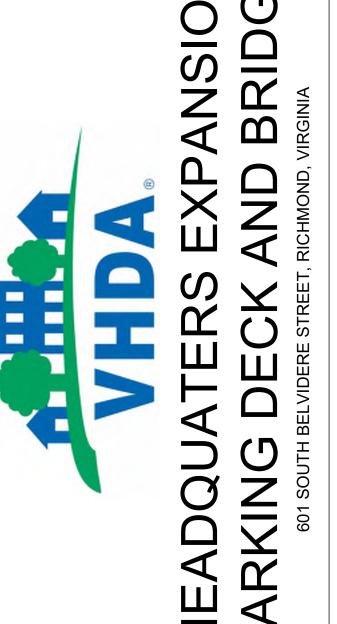










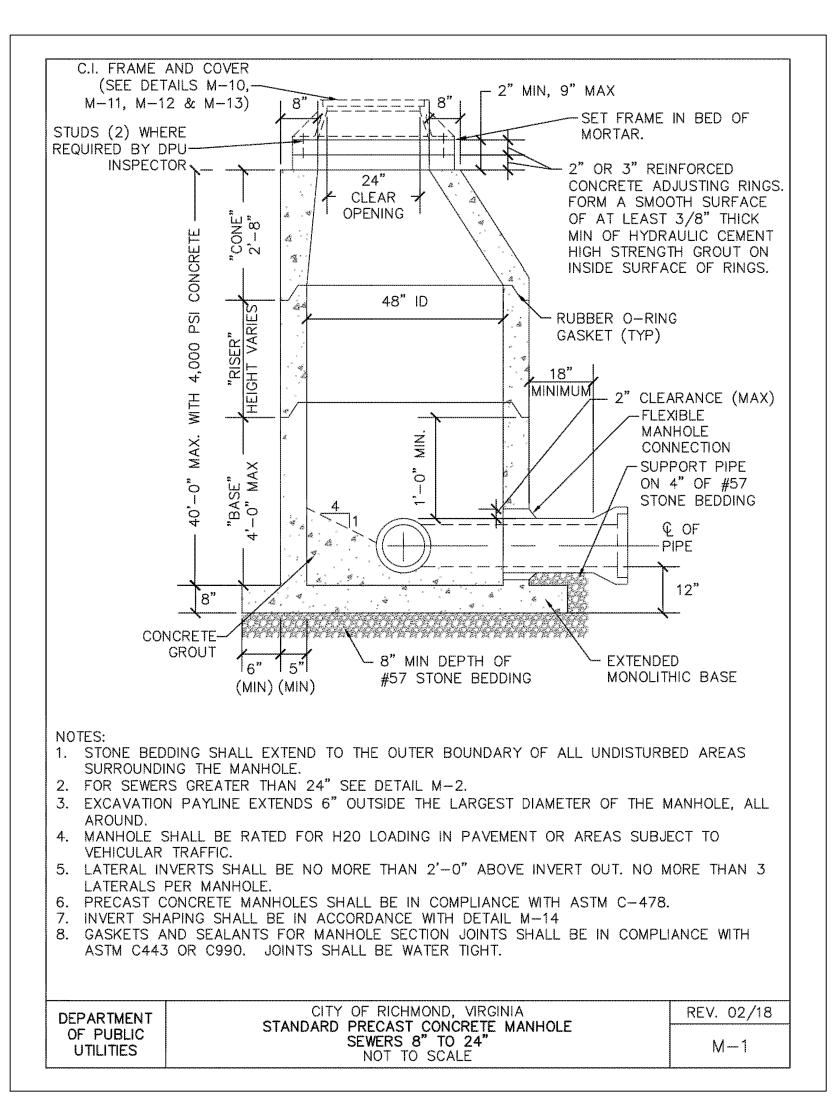


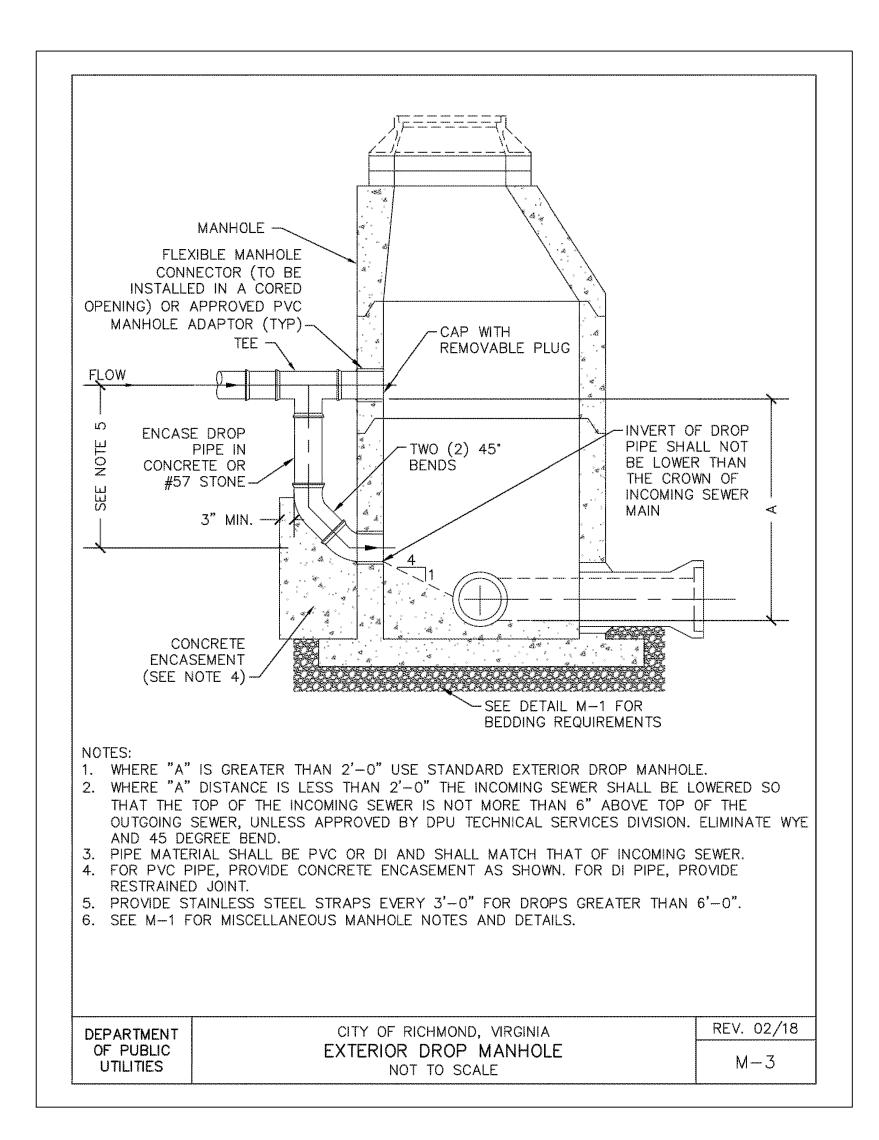
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SPECIAL USE PERMIT	4/14/2020
CITY COMMENTS	7/31/2020
CITY COMMENTS	10/14/2020
DESCRIPTION	DATE

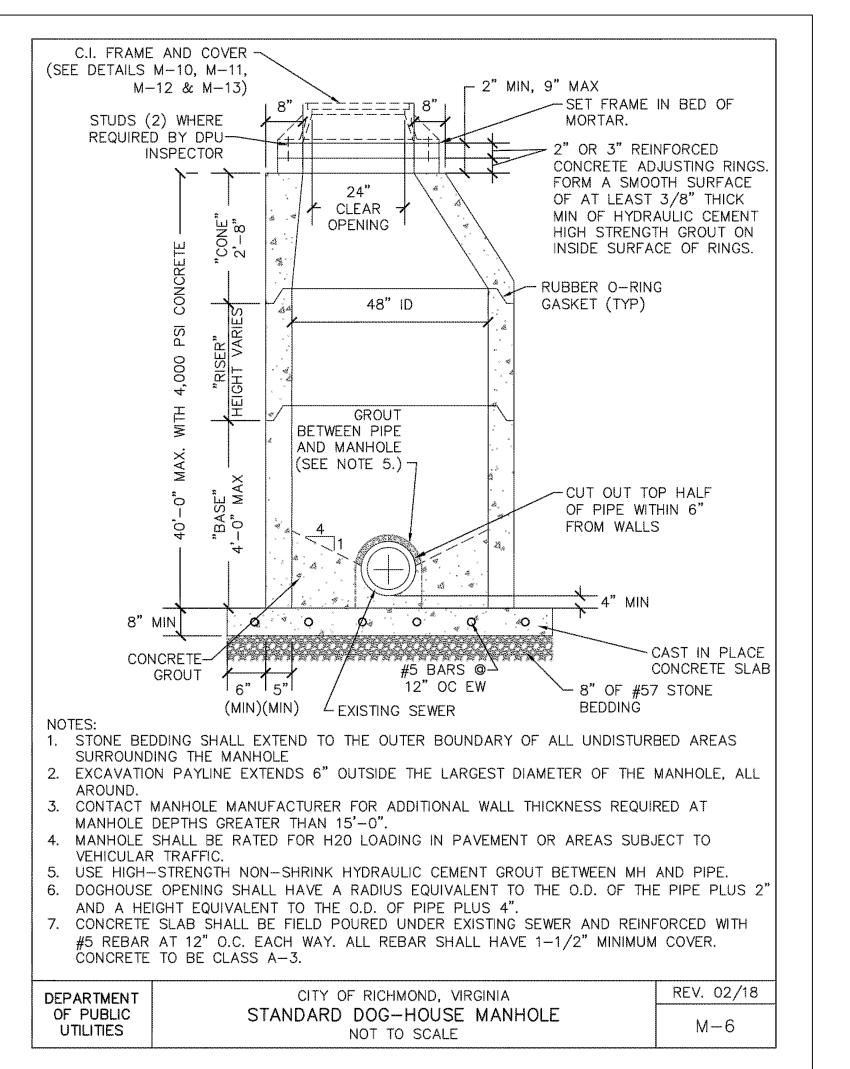


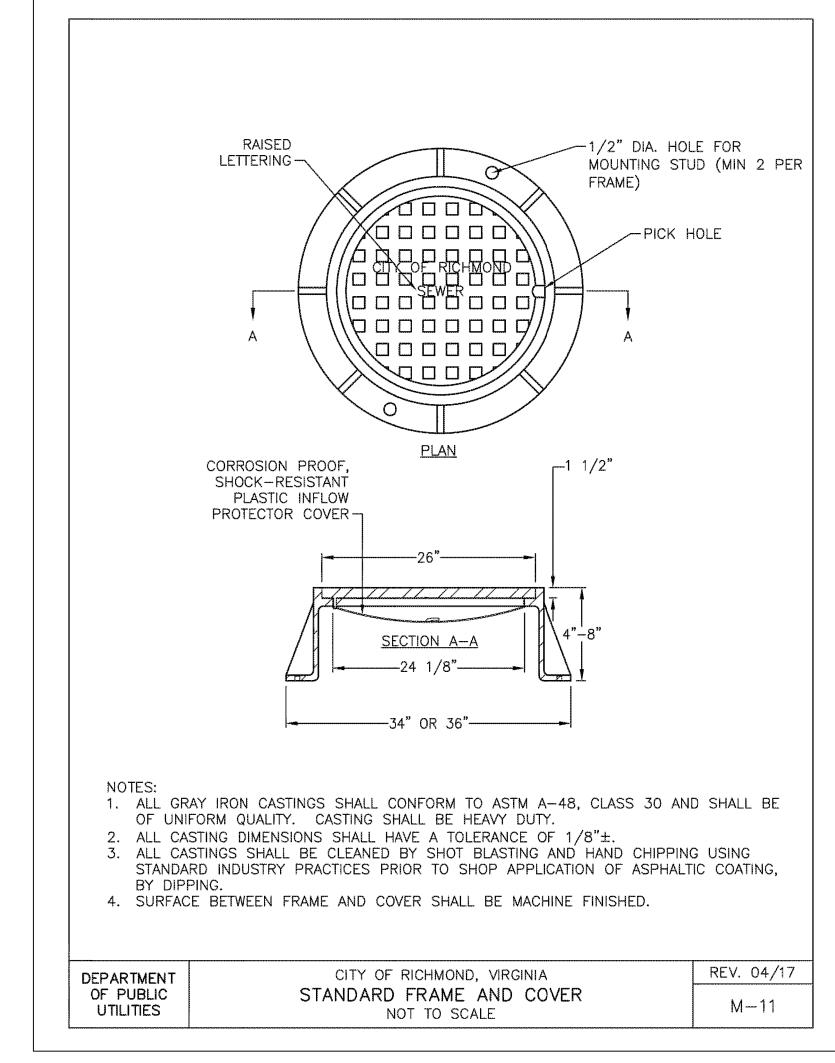
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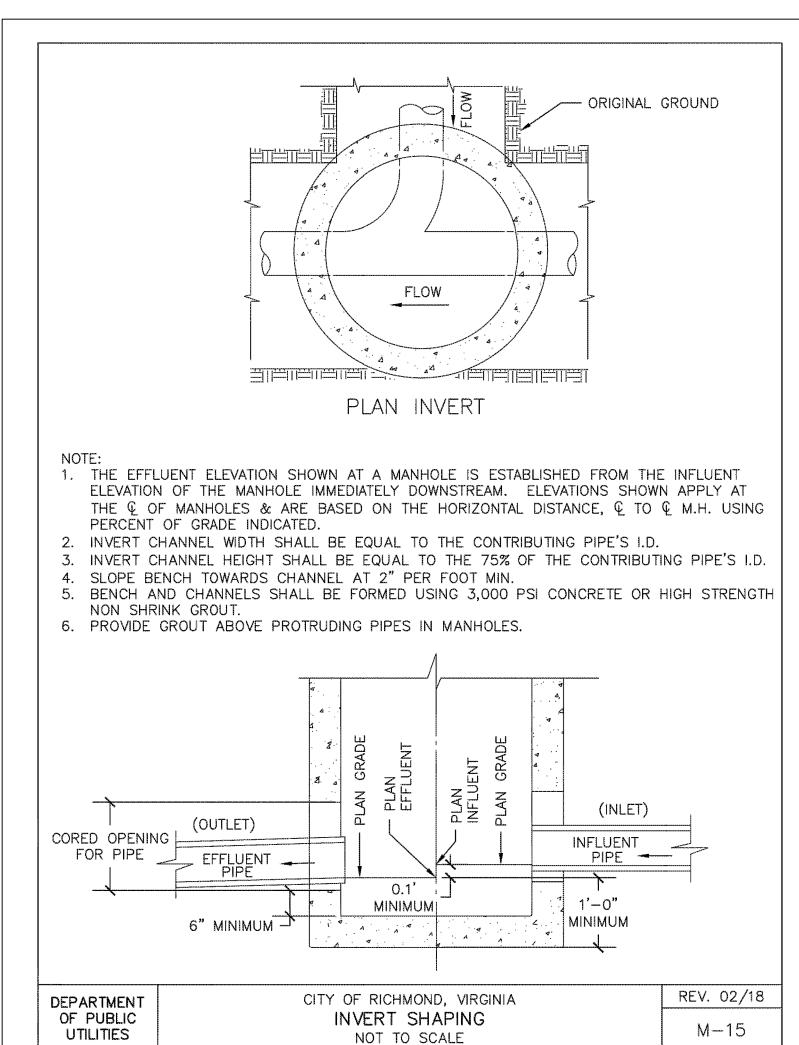
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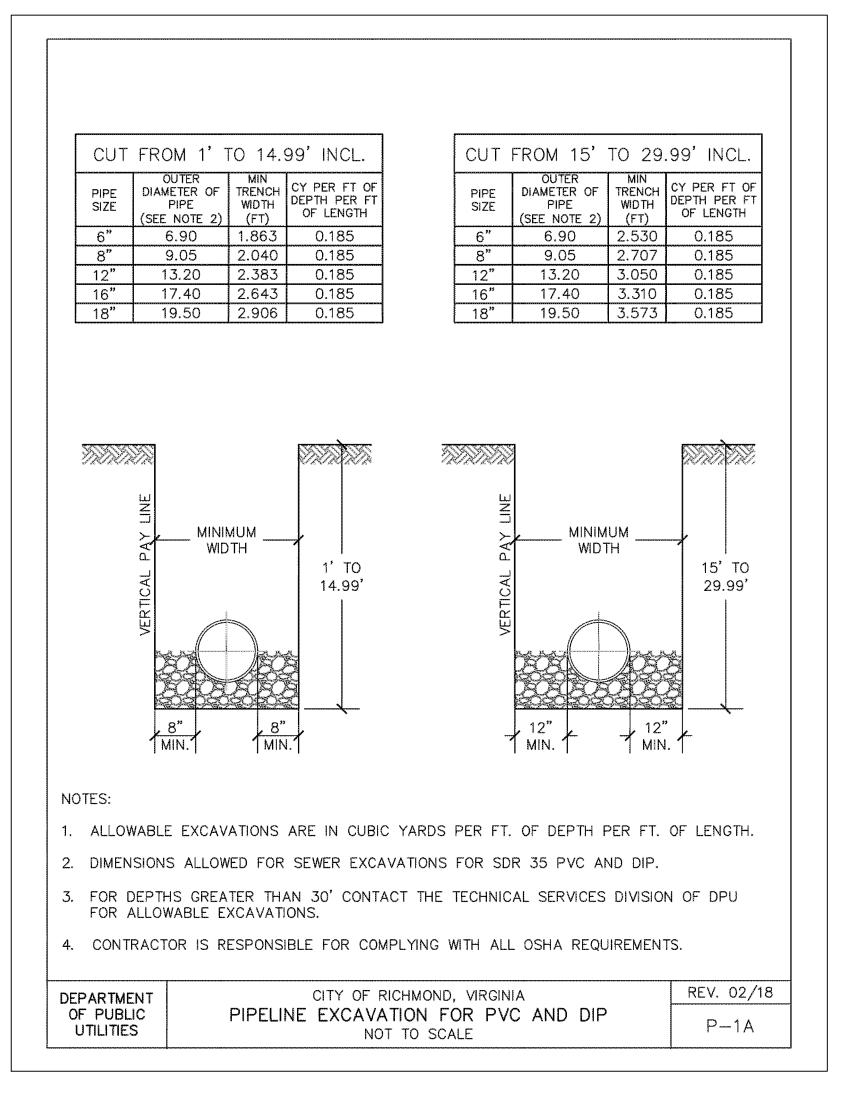


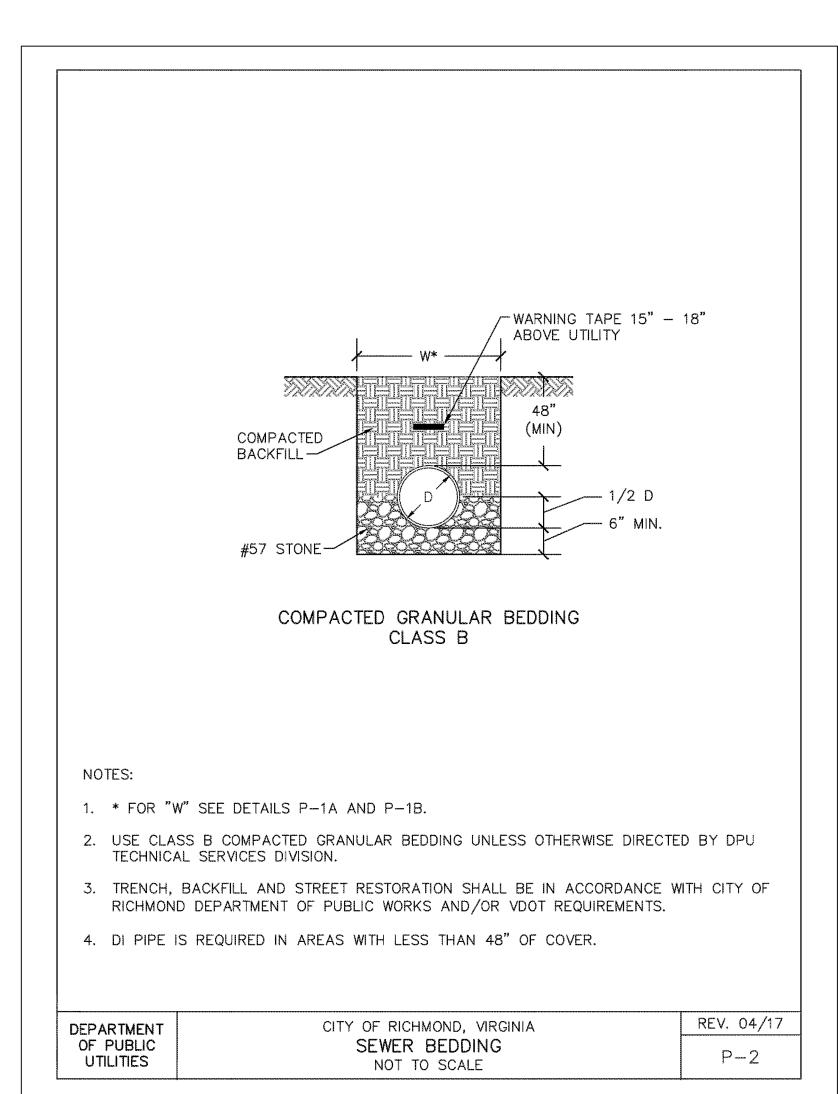


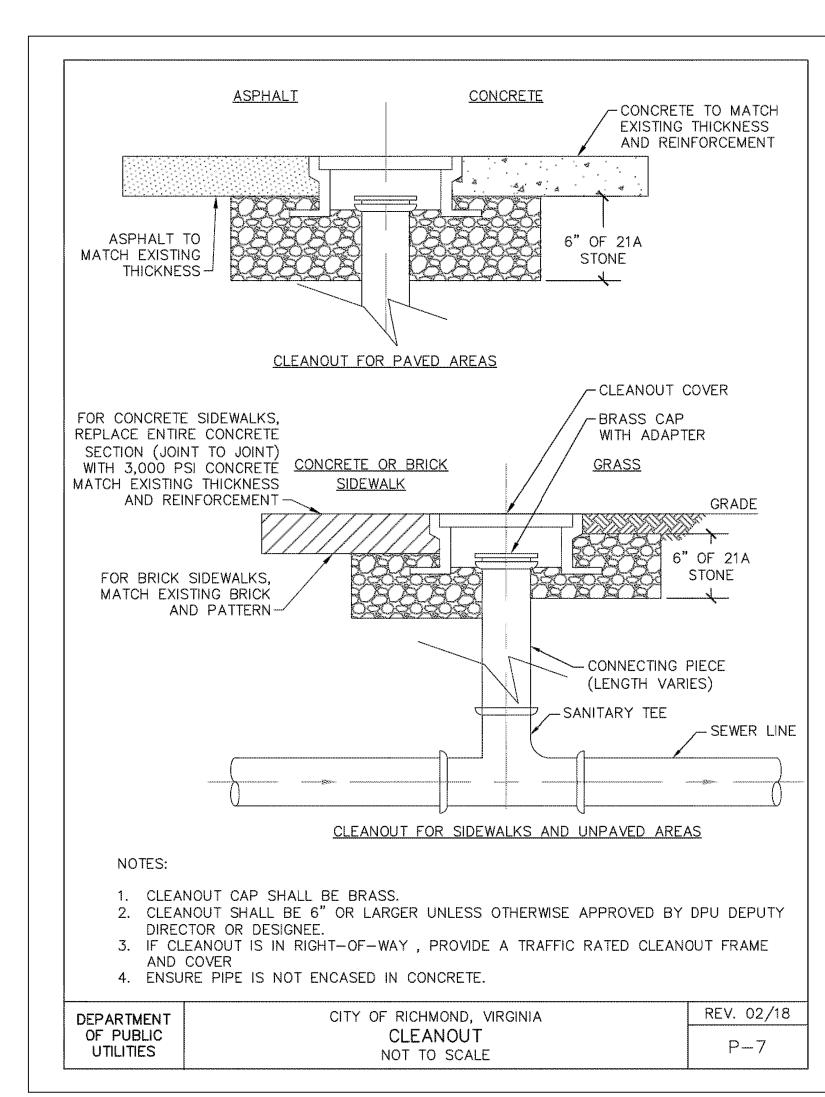














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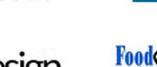
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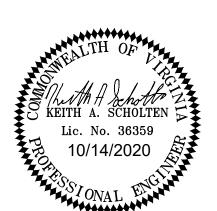






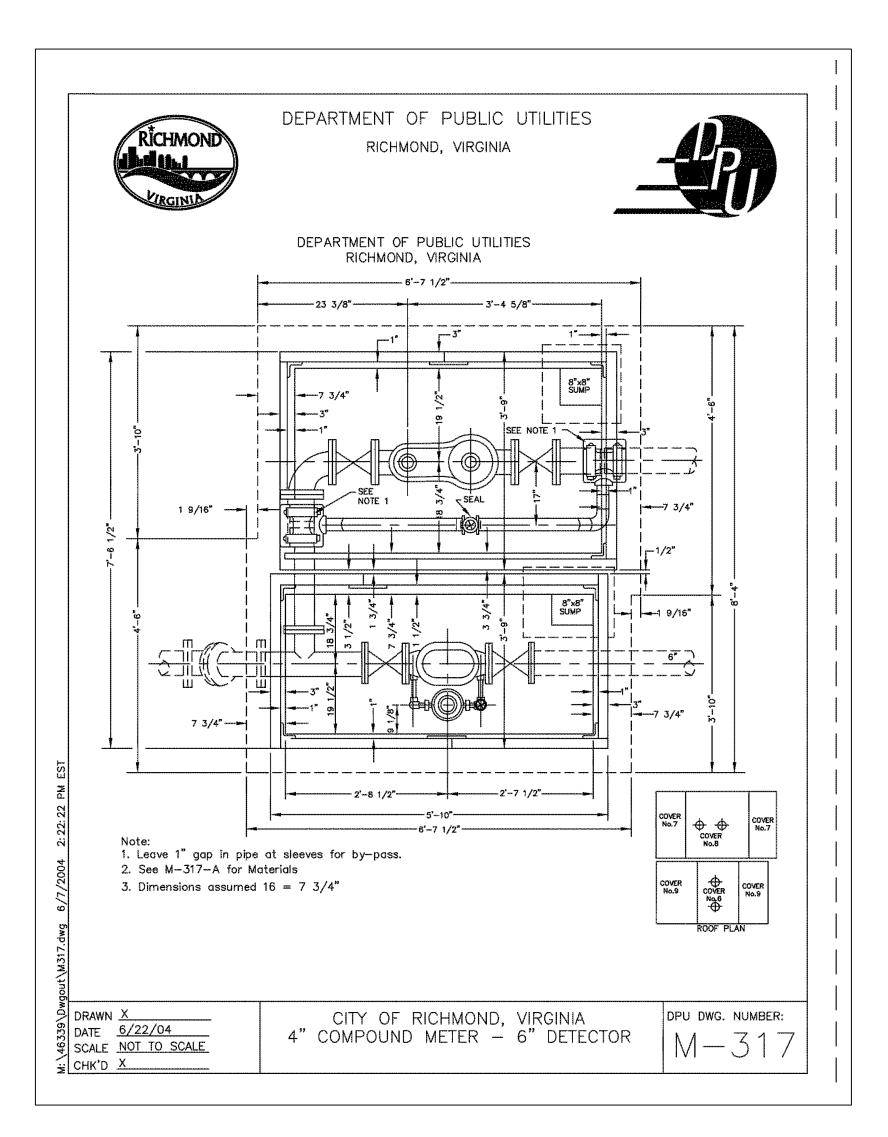


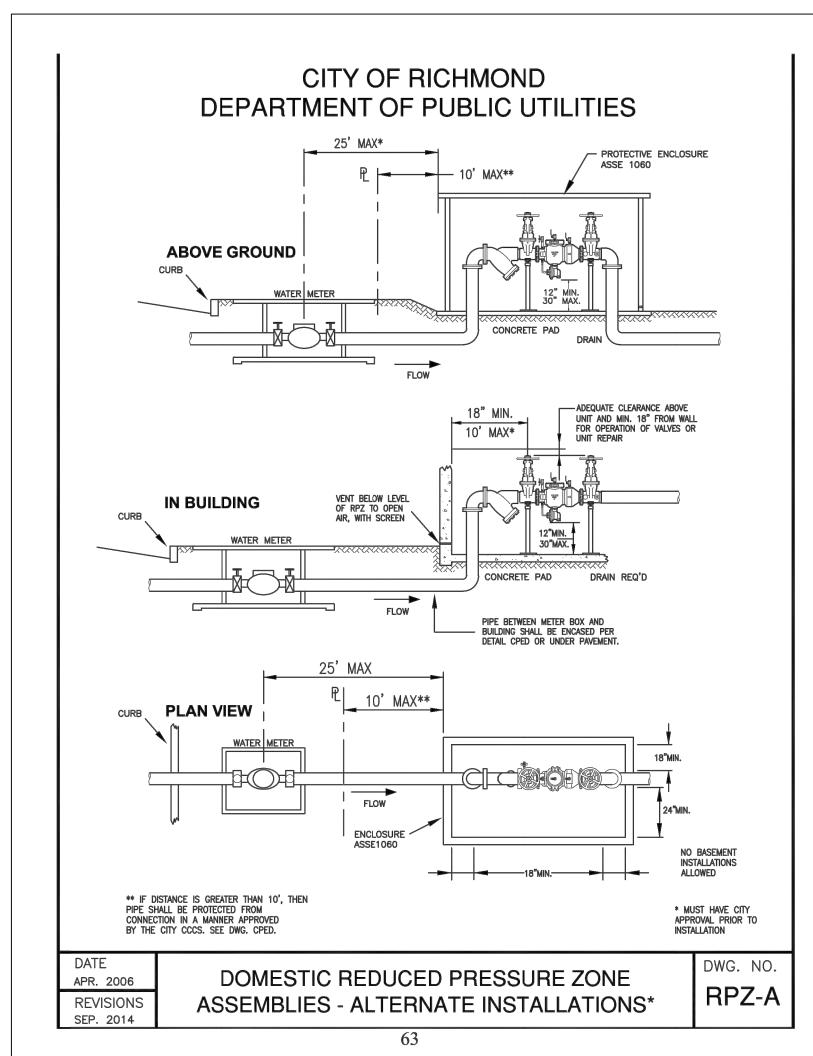
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Sheet Name: UTILITY DETAILS

Sheet Number:





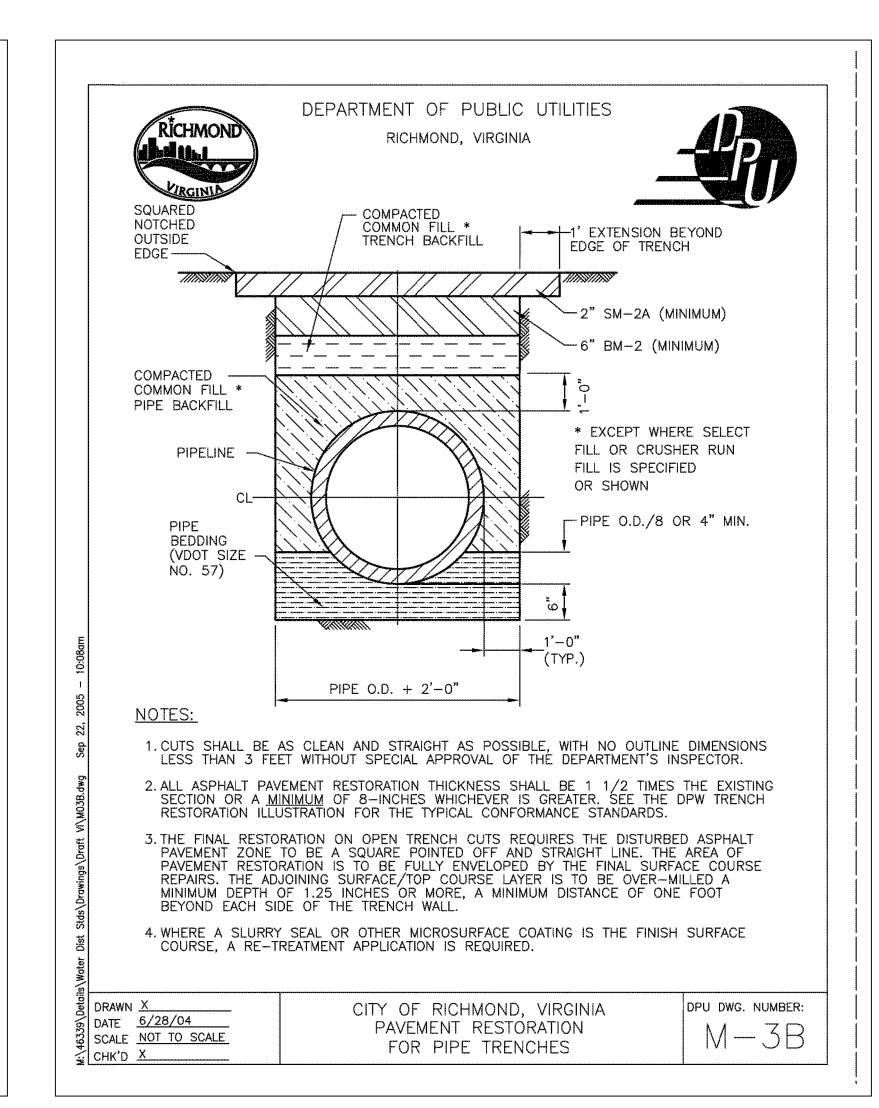
CITY OF RICHMOND DEPARTMENT OF PUBLIC UTILITIES TYPICAL INSTALLATION PROCEDURES

- 1. REFER TO ALL APPLICABLE CODES AND MANUALS DURING DESIGN.
- 2. THE BFP ASSEMBLY'S SHUTOFF VALVES SHALL BE THE ONES APPROVED BY THE MANUFACTURER FOR THAT BFP ASSEMBLY.
- 3. SUBMIT PLANS SEALED AND SIGNED BY A PROFESSIONAL ENGINEER TO CROSS CONNECTION DEPT.
- 4. APPLY FOR A PLUMBING PERMIT FROM BUILDING INSPECTIONS OFFICE.
- 5. APPLY FOR A WATER SERVICE PERMIT FROM DPU DEVELOPMENT OFFICE.
- 6. INSTALL PIPING AND BACKFLOW PREVENTER, INCLUDING TEST COCKS ADAPTERS - (4) STRAIGHT HOSE ADAPTER FITTINGS, 1/4" S.A.E. 45° FLARE TUBE X 1/4" NPT, FOR CONNECTION TO TEST DEVICE. BACKFLOW PREVENTION DEVICES WILL BE INSTALLED OUTSIDE (OR INSIDE OF A BUILDING WITH APPROVAL OF THE CROSS CONNECTION CONTROL SPECIALIST). REFER TO PLANS FOR TYPICAL INSTALLATION DETAILS. NO TAP-INS WILL BE PERMITTED FOR ANY PURPOSE UPSTREAM OF THE BACKFLOW PREVENTION DEVICE.
- 7. CALL CROSS CONNECTION CONTROL SPECIALIST FOR INSPECTION OF THE BACKFLOW PREVENTER. INSPECTION AND APPROVAL IS REQUIRED BEFORE ANY METER WILL BE INSTALLED. [804-646-8544]

8. CALL PLUMBING INSPECTOR FOR INSPECTION OF ALL PIPING AND PLUMBING WORK DOWNSTREAM OF THE METER. CALL MECHANICAL INSPECTOR FOR INSPECTION OF ALL WORK DOWNSTREAM OF THE DETECTOR CHECK METER.

DATE APR. 2006	TYPICAL	DWG. NO.
REVISIONS SEP. 2014	INSTALLATION PROCEDURES	RPZ-IP

64





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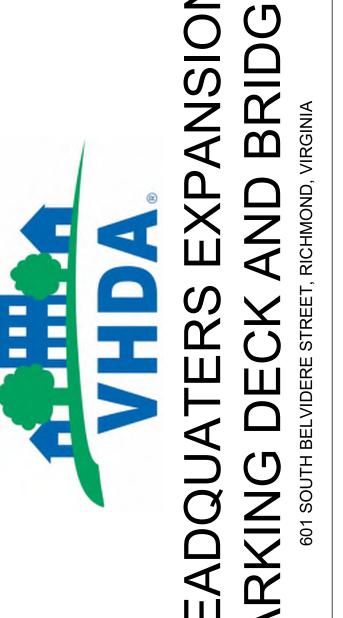










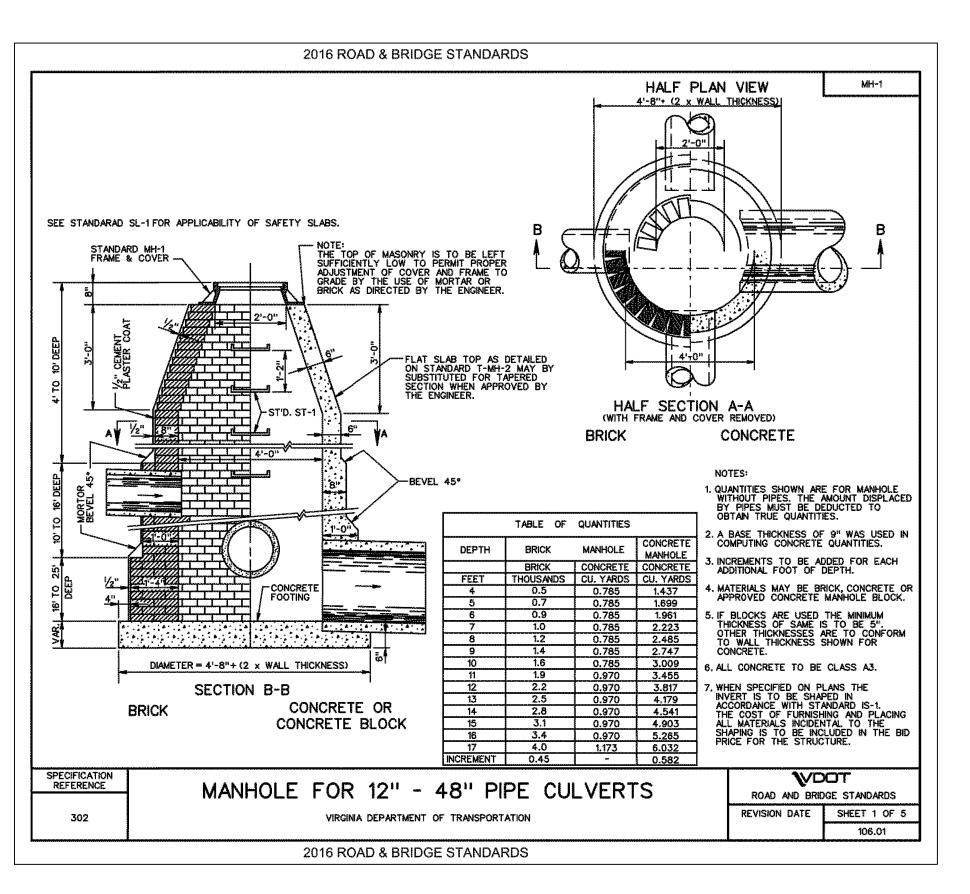


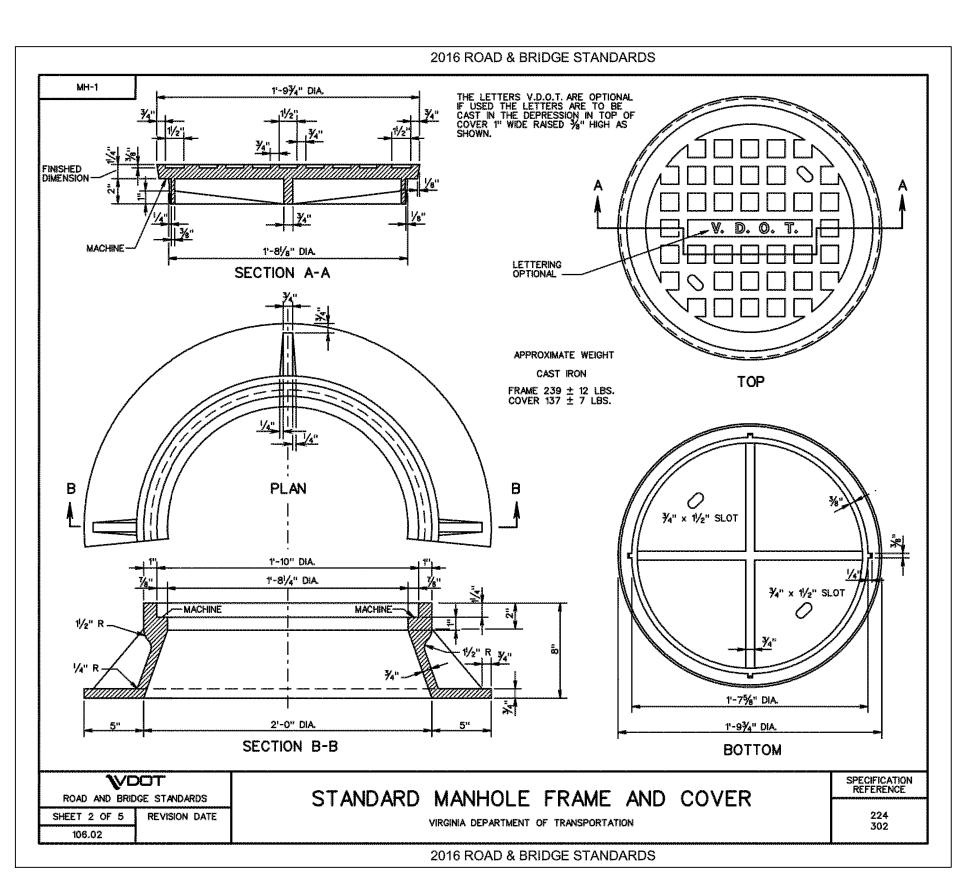
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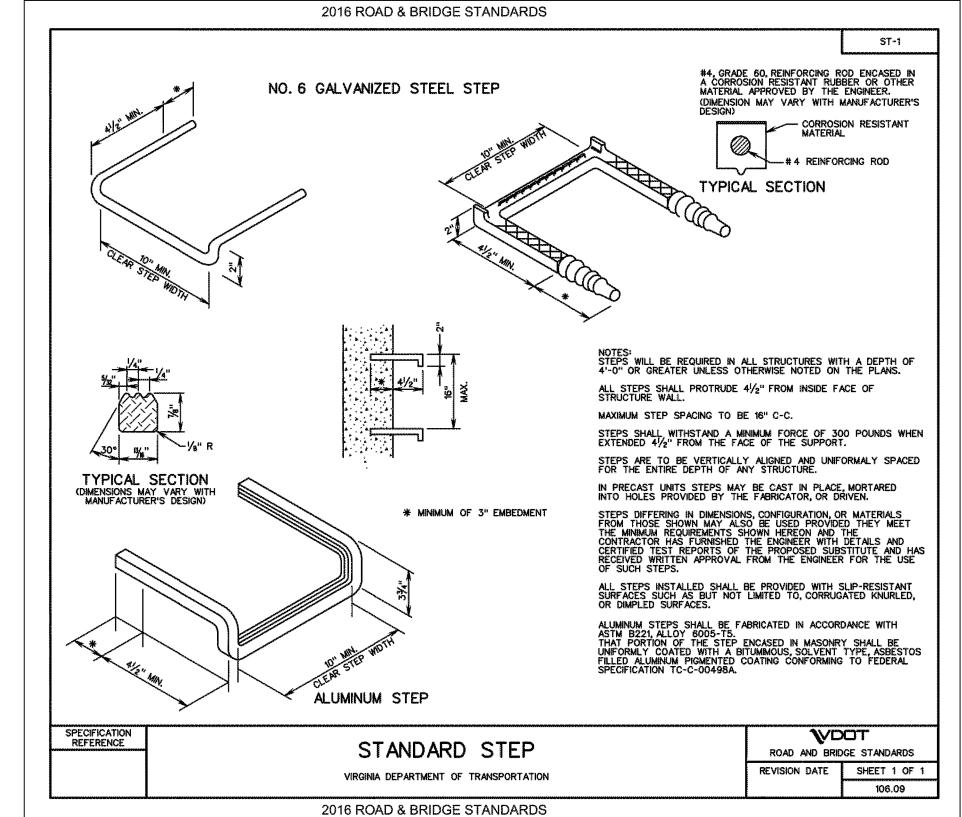


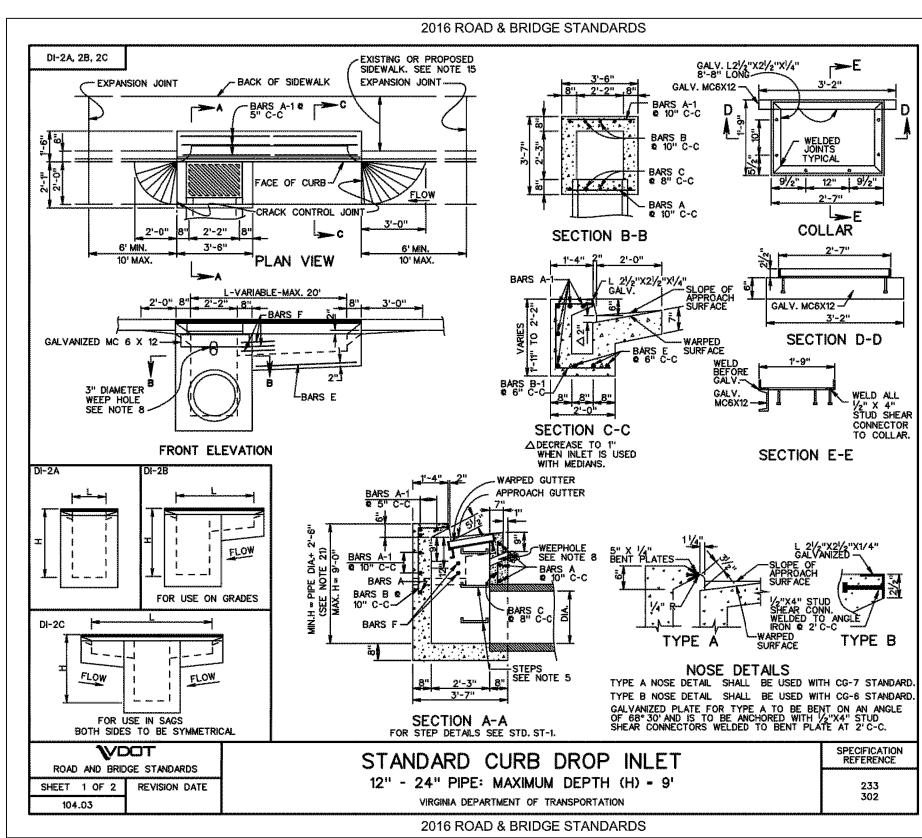
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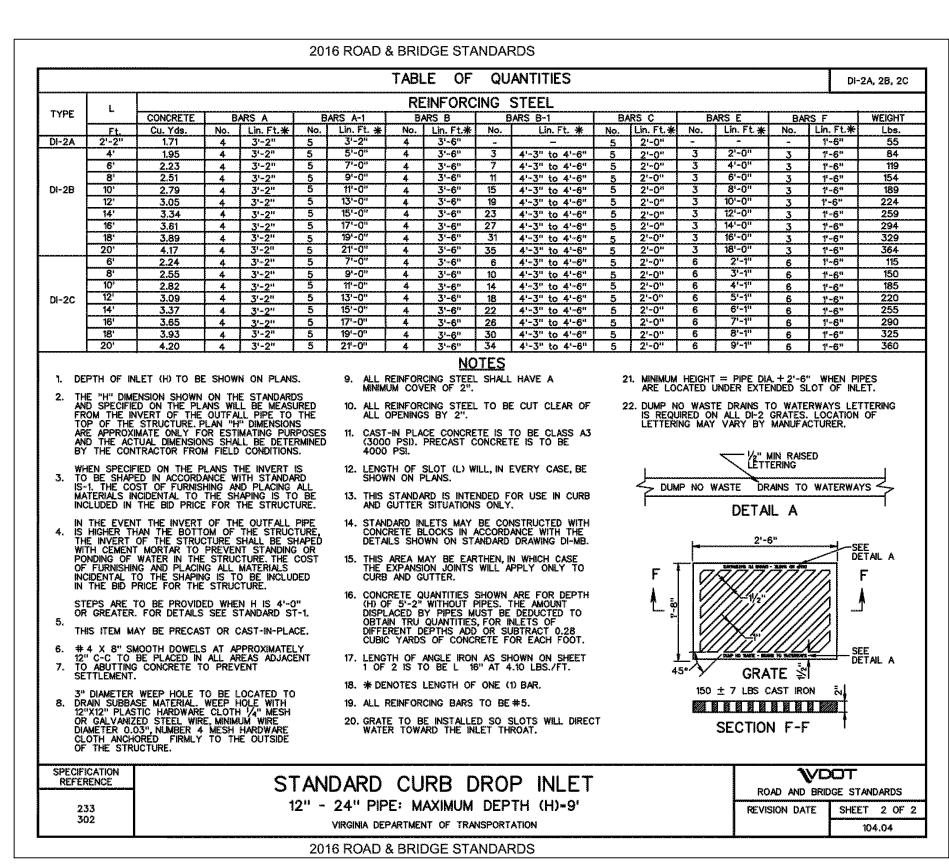
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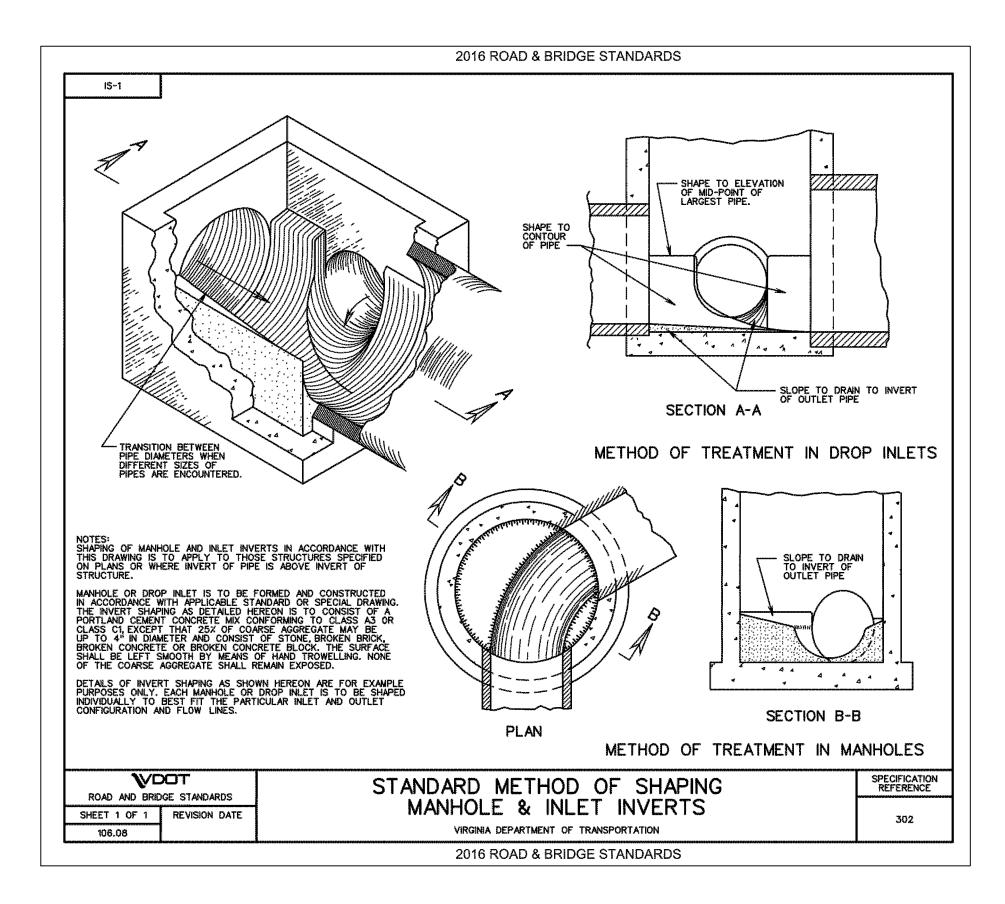


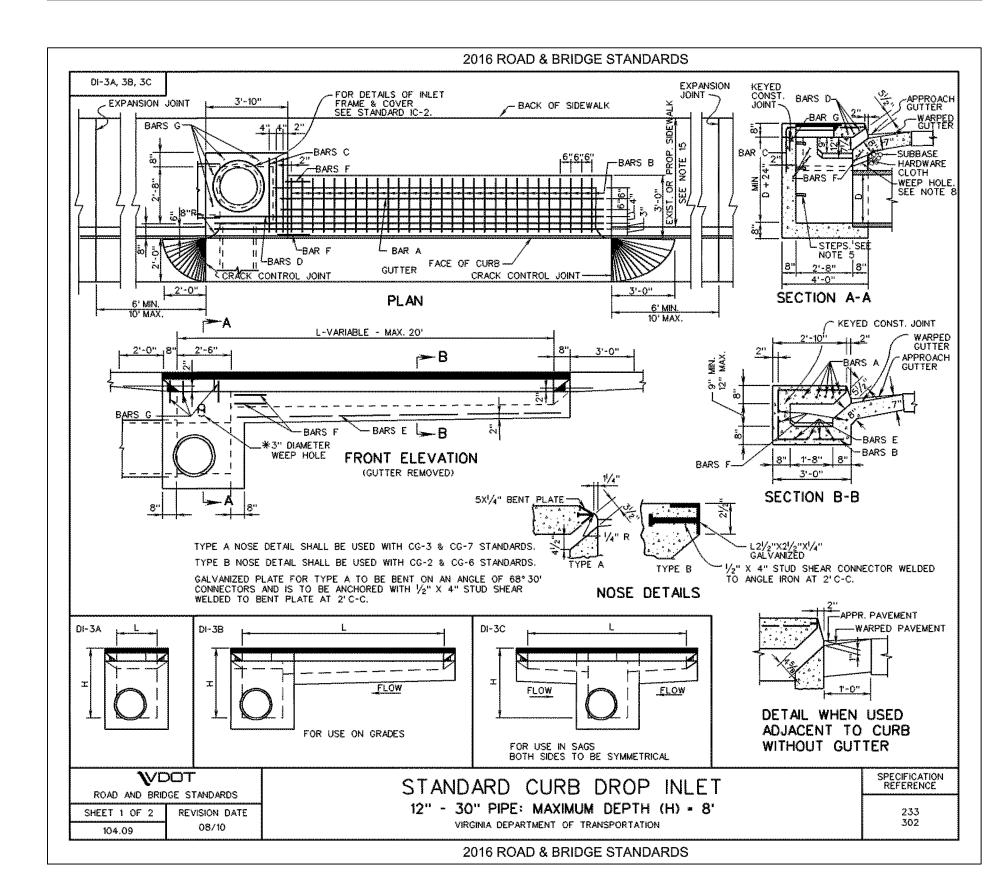


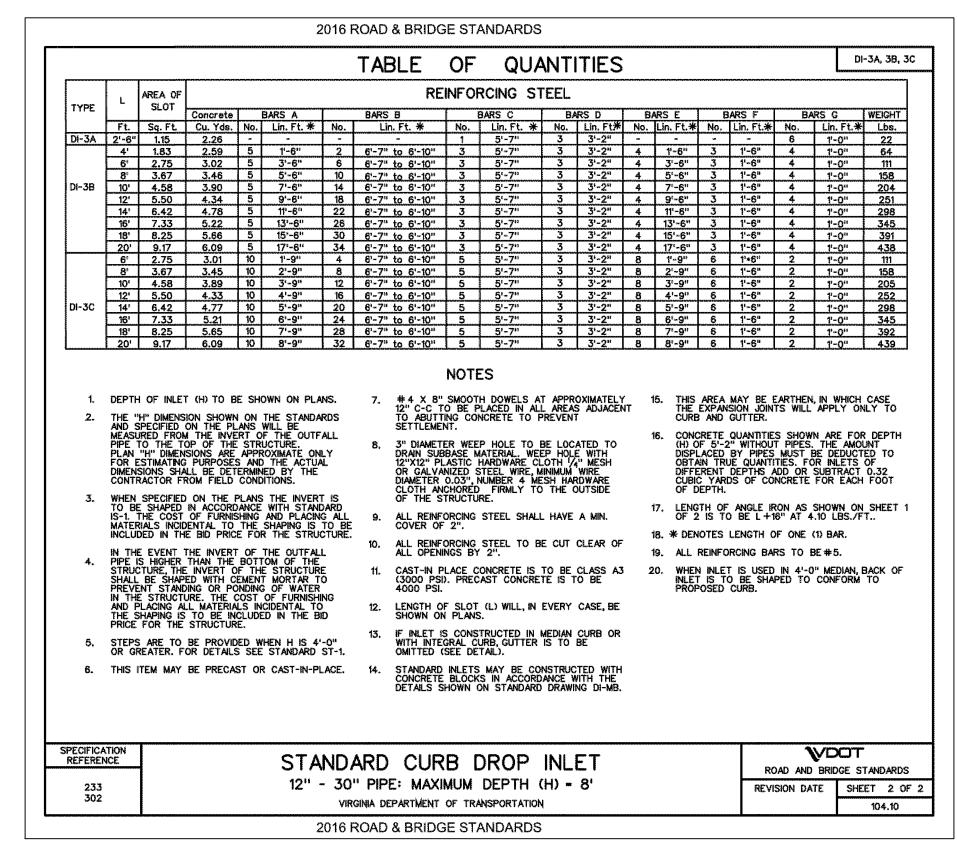














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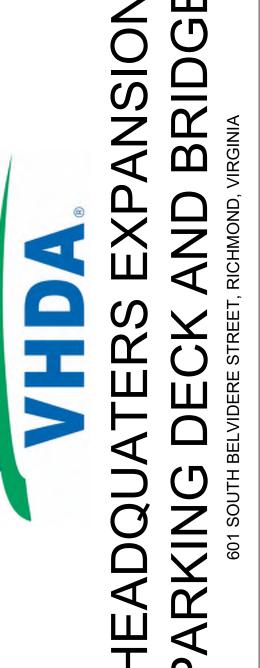








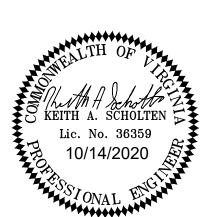




ISSUE LOG

SPECIAL USE PERMIT 4/14/2020
CITY COMMENTS 7/31/2020
CITY COMMENTS 10/14/2020

DESCRIPTION DATE NO

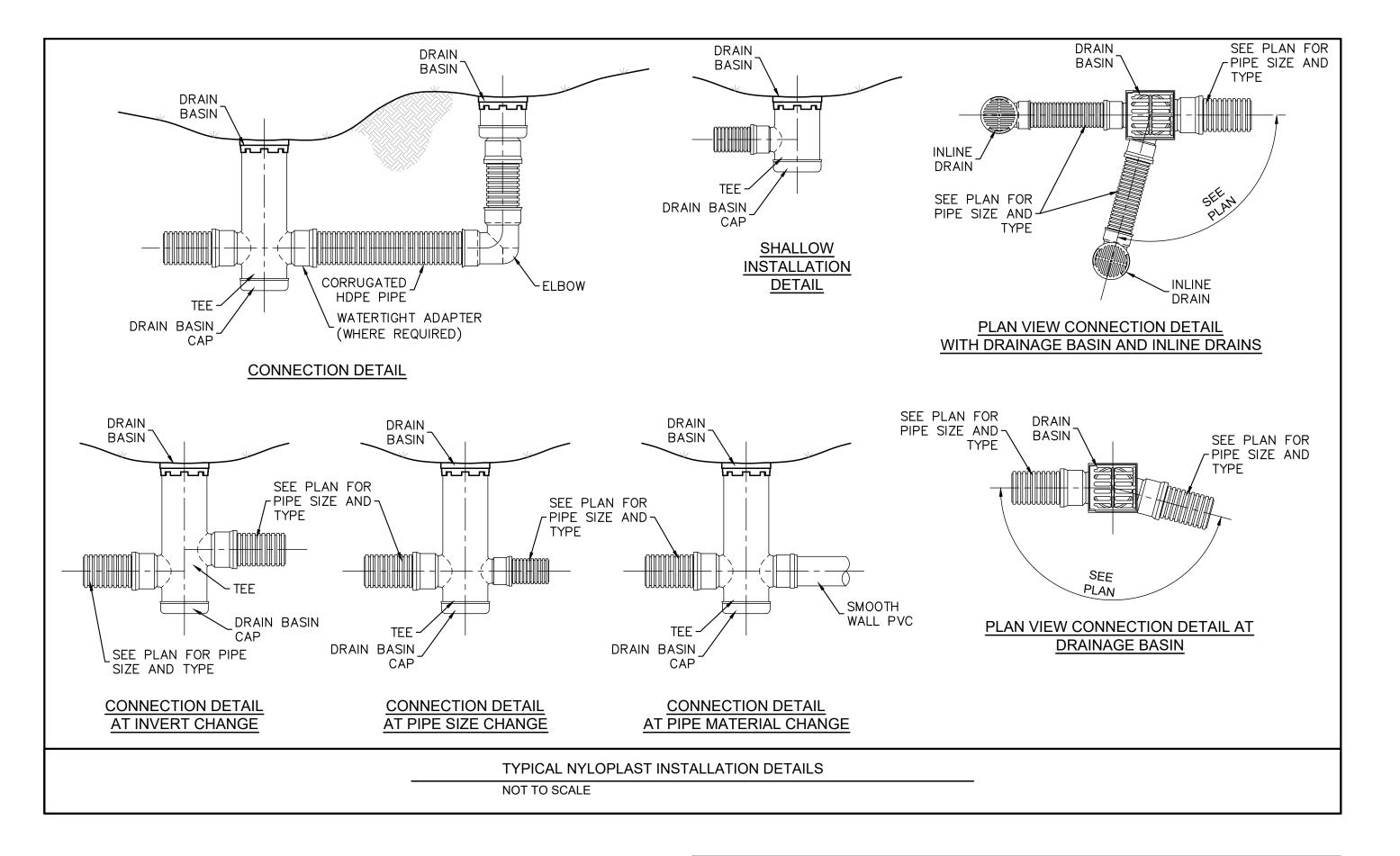


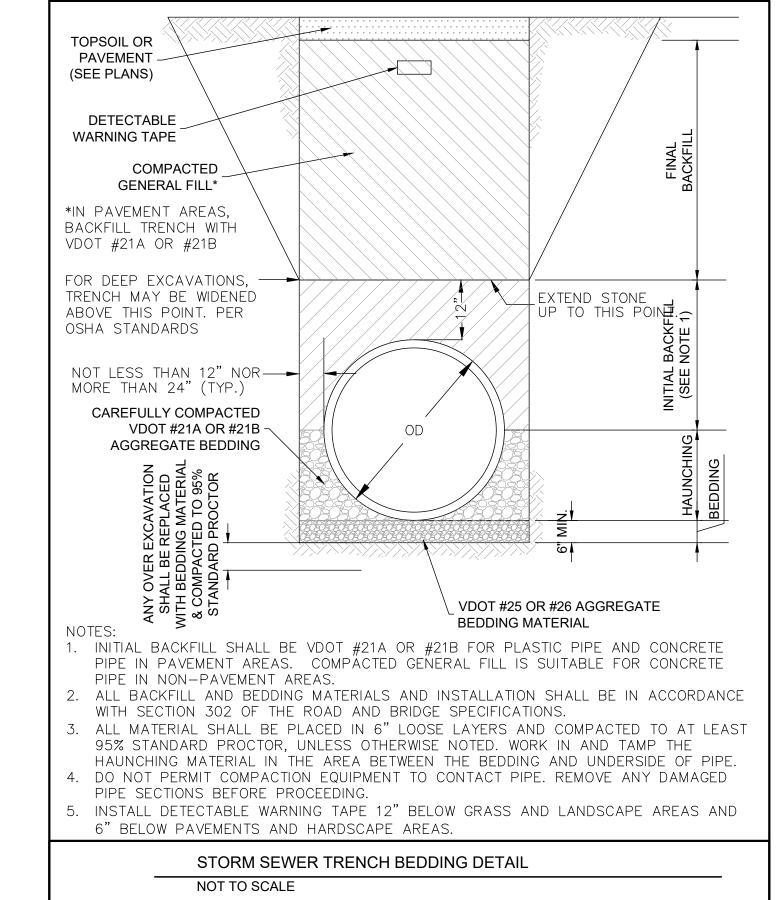
Sheet Name:
STORM DETAILS

Sheet Number:

C1105

Hourigan Project Number:







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EADQUATERS EXPANS ARKING DECK AND BRII 601 SOUTH BELVIDERE STREET, RICHMOND, VIRGINIA

ISSUE LOG

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CITY COMMENTS	7/31/2020	
CITY COMMENTS	10/14/2020)
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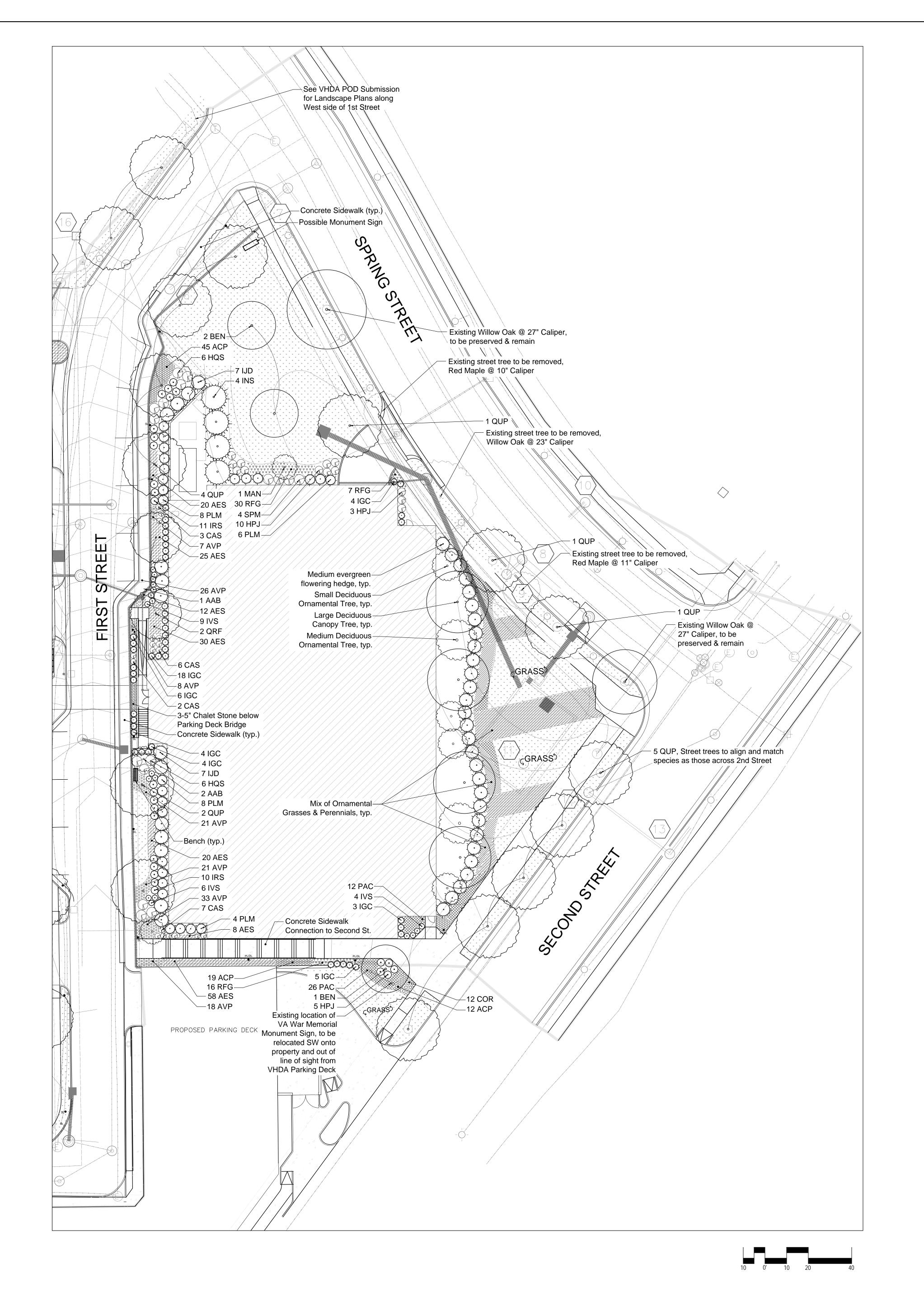


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STORM DETAILS

Sheet Number:

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Hourigan Project Number:





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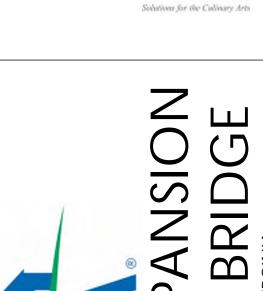


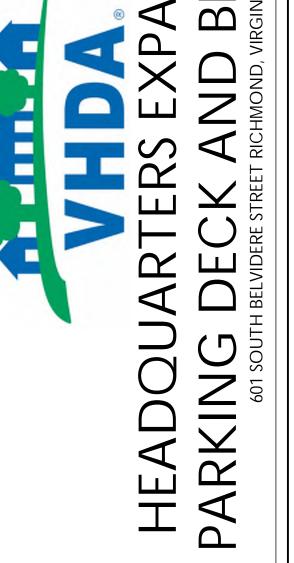




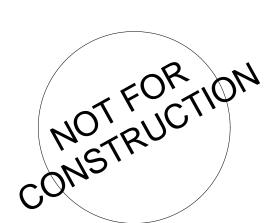








ISSUE LOG		
SUP SUBMISSION 1	04/14/2020	1
SUP SUBMISSION 11	07/31/2020	2
SUP SUBMISSION 111	10/13/2020	3
DESCRIPTION	DATE	NO.

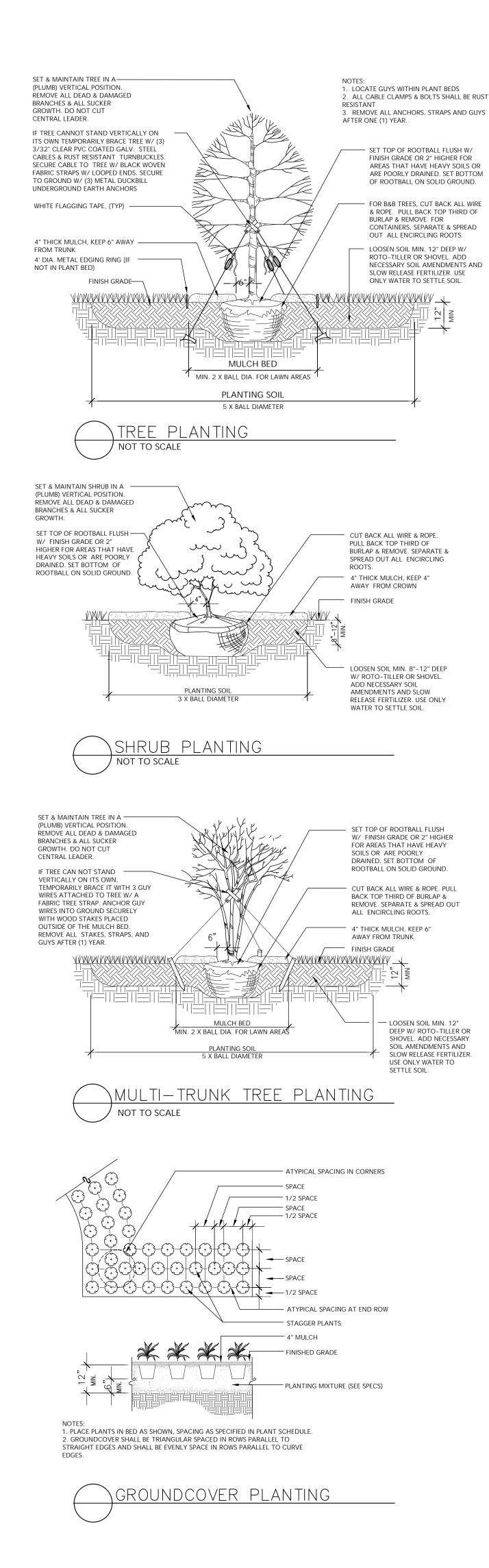


Sheet Name:
PARKING DECK
LANDSCAPE PLAN

Sheet Number:

L10

Hourigan Project Number:



Planting Notes:

- 1. The utilities shown are for the contractor's convenience only. There may be other utilities not shown on these plans. The landscape architect assumes no responsibility for the locations shown and it shall be the contractor's responsibility to verify the locations of all utilities within the limits of work. Contractor shall contact "Miss Utility" and have all underground utilities marked prior to any land disturbance operations.
- 2. Contractor shall verify plant material quantities shown on plan with totals in planting schedule. Notify Landscape Architect of any discrepancies prior to final bidding.
- 3. All plant materials shall be guaranteed for one full year to be in a healthy growing condition. Plant materials which do not fulfill this guarantee shall be replaced at no cost to the owner. Replacement shall be guaranteed throughout the original guarantee period. Plants that die shall be replaced immediately.
- 4. Contractor is responsible for watering all plant material during installation and until final inspection and acceptance by owner. Contractor shall not assume irrigation system is fully operational at completion of planting installation.
- 5. Contractor is responsible for contacting Miss Utility prior to beginning of construction for location of all utility lines. Trees shall be located a minimum of 5 feet from sewer/water connections.
- 6. All plant materials, topsoil, mulch, fertilizers, soil amenities, planting supplies and methods shall be subject to LA approval. Rejected materials shall be removed from the site without delay.
- 7. All plant materials and planting methods shall conform to A.A.N. Standards.
- 8. Contractor shall layout and mark location for all plant material, planting, and improvements shown and request in field approval from LA.
- 9. Beds to contain shrubs or ground cover shall be tilled to a depth of 6" and the soil conditioned by adding clean, well rooted manure. If existing soil is considered to be unusable by owner, beds shall be treated to eliminate weeds and weed seeds.
- 10. All planting bed areas shall be covered with a 3" max. layer of medium texture shredded hardwood mulch. Unless otherwise noted.
- 11. All substitutions of plant material shall be requested in writing to the landscape architect and approved in writing by the owner.
- 12. All planting operations shall be under the supervision of an experienced plantsman.
- 13. For trees balled in wire baskets, cut and remove top and sides of basket after installation.
- 14. Landscape Architect reserves the right to reject any plants and materials that are in an unhealthy or unsightly condition, as well as plants and materials that do not conform to A.A.N. Standards. See American Standard For Nursery Stock (current edition).
- 15. Soil shall be free of all weeds.
- 16. Any area within the limit of work that is disturbed shall be either re-seeded or mulched to match existing conditions.
- 17. Landscape areas to be irrigated. Irrigation plans to be designed by others.

VHDA HEADQUARTERS EXPANSION - PARKING DECK AND BRIDGE

- 18. All landscape beds to have steel edging where landscape is adjacent to grass or soft surface area.
- 19. The vertical clearance from the sidewalk to the bottom of any sign or over hanging vegetation shall be 5' min. In addition, trees potentially overhanging the line of sight must be limbed up to 5'. Contractor to confirm limbing up of trees to 5' min. will not result in inadequate live crown ratio. Contractor to confirm 60% live crown ratio for all new tree plantings.

IP Landscape Schedule						
DIUM/ LARGE DECIDUO	US TREES					
Υ	KEY	BOTANICAL NAME	COMMON NAME	HEIGHT	CALIPER	NOTES
3	BEN	Betula nigra 'Dura Heat'	Dura Heat River Birch	12- 14' Min.	2" min.	B&B, multi-trunk, full symmetrical uniform branching, full specimen
2	QRF	Quercus robur 'Fastigiata'	Columnar English Oak	12- 14' Min.	2" min.	B&B, single trunk, full symmetrical uniform branching, full specimen
14	QUP	Quercus phellos 'Hightower'	Hightower Willow Oak	12- 14' Min.	2" min.	B&B, single trunk, full symmetrical uniform branching, full specimen
VERGREEN TREES						
ſΥ	KEY	BOTANICAL NAME	COMMON NAME	HEIGHT	CALIPER	NOTES
4	INS	//ex x 'Nellie R. Stevens'	Nellie R. Stevens Holly	8 - 10' Min.		B&B, full well formed to ground, uniform, symmetrical branching, full specimen,
			,			
RNAMENTAL TREES		+				
Υ	KEY	BOTANICAL NAME	COMMON NAME	HEIGHT	CALIPER	NOTES
3	AAB	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	8 - 10' Min.		B&B, single trunk, full symmetrical uniform branching, full specimen
1	MAN	Magnolia 'Ann'	Ann Magnolia	8 - 10' Min.		B&B, multi-trunk, full symmetrical branching
· · · · · · · · · · · · · · · · · · ·	1012 41 4	magnona 74m	7 an i magnosia	0 10 191111		Dab, mara aum, tan oyinmourour branoning
HRUBS						
Y	KEY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	NOTES
18	CAS	Clethra alnifolia 'Sixteen Candles'	Sixteen Candles Summersweet	24" MIN.	24" MIN.	3 gal., healthy, full well formed, rooted & established in container
18	HPJ	Hydrangea paniculata 'Jane'	Little Lime® Hardy Hydrangea	24" Min.	24" min.	3 gal., healthy, full well formed, rooted & established in container
12	HQS	Hydrangea quercifolia 'Brido'	Snowflake Oakleaf Hydrangea	36" Min.	24" min.	3 gal., healthy, full well formed, rooted & established in container
44	IGC	Ilex glabra 'Chamzin'	Nordic Inkberry	24" Min.	24" min.	3 gal., healthy, full well formed, rooted & established in container
14	IJD	llex verticillata 'Jim Dandy'	Jim Dandy Winterberry Holly	36" Min.	24" min.	3 gal., healthy, full well formed, rooted & established in container
21	IRS	llex verticillata 'Red Sprite'	Red Sprite Winterberry Holly	24" min.	24" min.	3 gal., healthy, full well formed, rooted & established in container
19	IVS	Itea virginica 'Sprich'	Little Henry Dwarf Virginia Sweetspire	24" Min.	24" min.	3 gal., healthy, full well formed, rooted & established in container
26	PLM	Prunus laurocerasus 'Majestic Jade'	Majestic Jade English Laurel	36" Min.	24" min.	3 gal., healthy, full well formed, rooted & established in container
4	SPM	Syringa x prestoniae 'Minuet'	Minuet Preston Lilac	36" Min.	24" min.	3 gal., healthy, full well formed, rooted & established in container
•						5 5000, 10000000, 1000000000000000000000
		EO MUSO HERRO				
RENNIALS, ORNAMENT			COMMON WARE	A (****	201.00	LIATEA
<u>ry</u>	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COLOR	NOTES
76	ACP	Achillea 'Paprika'	Paprika Yarrow	1 Gal.	Red/Pink	18" o.c., full specimen, healthy, rooted & established
173	AES AVE	Aster divaricatus 'Eastern Star'	Easter Star Aster	1 Gal.	White	18" o.c., full specimen, healthy, rooted & established
134	AVP	Astilbe chinensis 'Visions in Pink'	Visions in Pink Astilbe	1 Gal.	Pink	12" o.c., full specimen, healthy, rooted & established
12	COR	Coreopsis 'Big Bang Polaris'	Big Bang Polaris Coreopsis	1 Gal.	White/Yellow	18" o.c., full specimen, healthy, rooted & established
38	PAC	Pennisetum alopecuroides 'Cassian's Choice'	Dwarf Fountain Grass	3 Gal.	V-II-	30" o.c., full specimen, healthy, rooted & established
53	RFG	Rudbeckia fulgida var. sullivantii 'Goldstrum'	Goldstrum Black Eyed Susans	1 Gal.	Yellow	18" o.c., full specimen, healthy, rooted & established
EED/SOD						
בטופטט	SOD	+			+	Contractor to submit recommended SOD variety to LA before installation for
	SEED					Contractor to submit recommended SOD variety to LA before installation for
ENERAL NOTE	hark mulch C	 ontractor to submit color sample of mulch to LA before	installation for approval			
		onu acuor io suomiii com samble of muich io LA Defore	matatation for approval			
ulch to be shredded hardwood			construction			
ulch to be shredded hardwood	ate with owne	r to determine exact locations to SEED vs. SOD prior to	construction			

Plant Schedule Explanatory Notes:

- 1. The following plant palette is prepared as a selection of planting materials.
- 2. Where an abbreviation is shown, the following notes apply:
- Quan. quantity of plant materials required for the project. (Note: contractor responsible to verify quantities indicated. Plan shall take
- precedence over schedule). Abbrv. - Botanical abbreviation
 - Botanical/common name of plant material
 - Height height of plant material Spread - diameter of plant material
- Cont. container type in which plant material is encased upon site delivery (size shall take
- Spacing distance from center of each plant (plan shall take precedence over schedule)
- Cal. caliper/diameter of trunk (refer to specs for more information caliper shall take precedence over height and spread)
- Notes specific notes further specifying or describing plant material
- 3. The contractor shall locate all proposed and existing utilities prior to the beginning of work. The contractor shall repair any damage to utilities that are disturbed as a result of the work. 4. The contractor shall maintain all grassed areas, including the repair of erosion areas, until the grass has reached the level of final acceptance and throughout maintenance contract period, if
- 5. All areas that are disturbed by construction inside or outside the limit of work shall be
- repaired, graded, and grassed. 6. All plant beds shall receive double shredded hardwood mulch at a depth of 3". 7. All existing trees to be saved will have tree barricades installed around them prior to beginning of demolition. All work in those areas is to be done by hand. Fences shall be
- maintained and kept in place at all times. 8. Provide erosion control where slopes are greater than 3:1 and where erosion is reoccurring.
- 9. All tree, shrub, and ground cover materials shall be planted within 24 hours after delivery. 10. Apply weed germination inhibitor ("Preen" or equal) to all plant bed areas.
- 11. Any plants located in direct sun shall be nursery sun grown.

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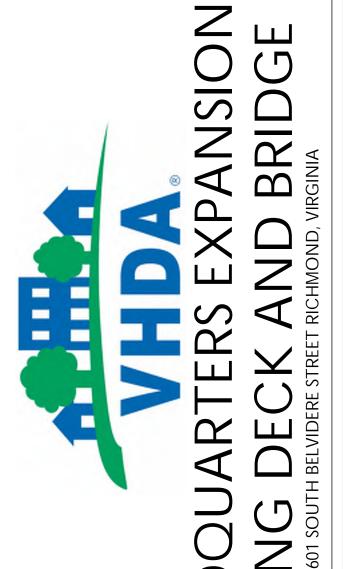




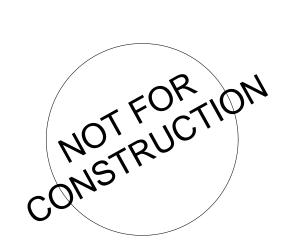






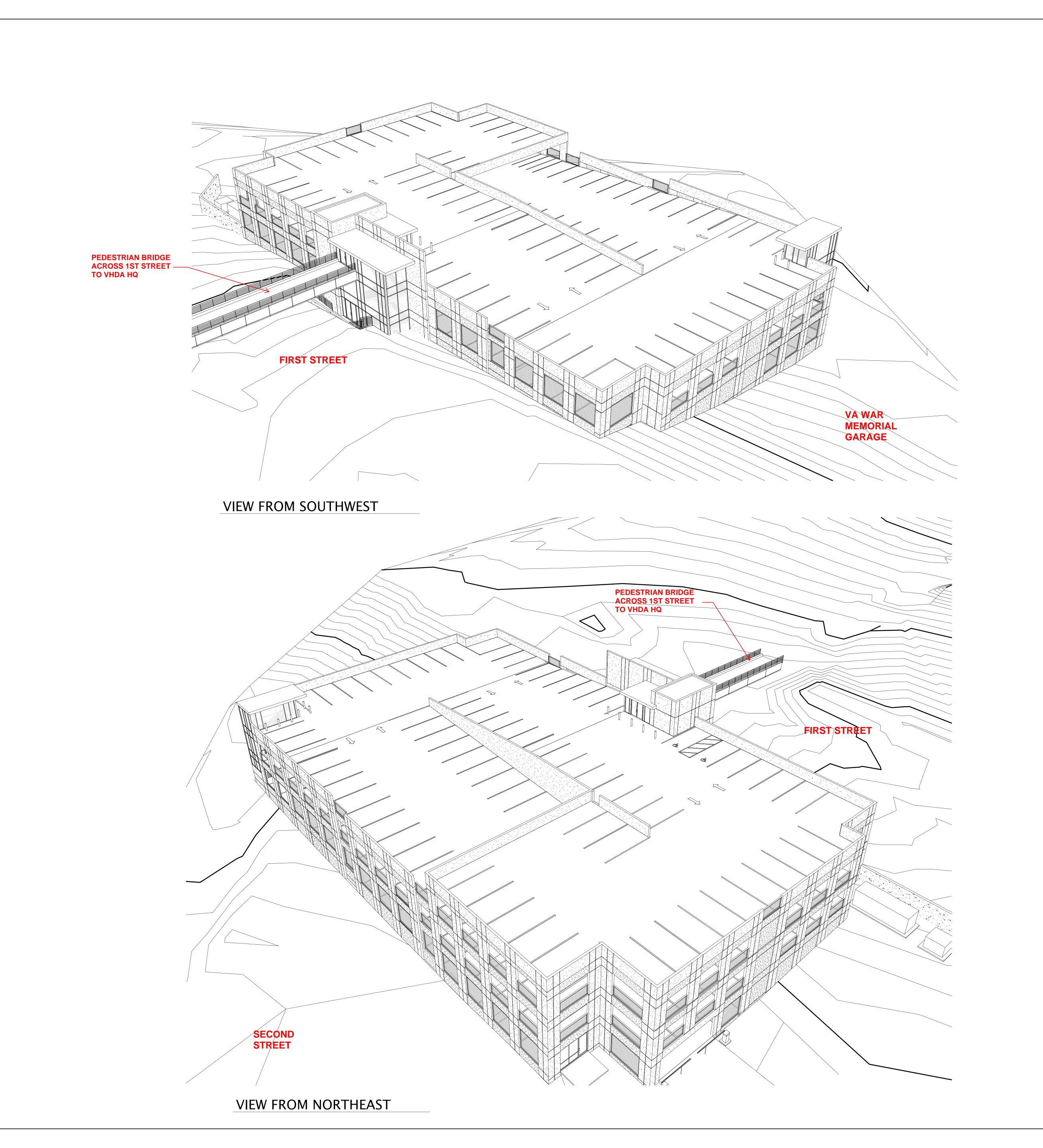


ISSUE LOG 04/14/2020 SUP SUBMISSION 07/31/2020 2 SUP SUBMISSION 11 10/13/2020 SUP SUBMISSION 111 DESCRIPTION DATE NO.



Sheet Name: LANDSCAPE NOTES & PLANT SCHEDULE

Sheet Number:



THINKING BEYOND THE CONCRETE.

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ISSUE LOG 03/17/2020 50% SCHEMATIC PHASE 100% SCHEMATIC PHASE 04/10/2020 SUP COMMENT REVISIONS 10/13/2020

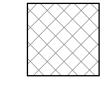
DATE NO. DESCRIPTION

Sheet Name: 3D VIEWS

Sheet Number:

2001.00 Project Number:

OPEN AREA LEGEND



PRE-CAST CONCRETE SURFACE AREA 100% OPAQUE



OPENING WITH ARCHITECTURAL MESH INFILL - 53% OPENING /

100% OPEN

TOTAL REQUIRED 20% OPENING AT PERIMETER PER SECTION 406.5

	NORTH	SOUTH	EAST	WEST	TOTAL SQ FT ALL ELEVATIONS	% TOTAL	TOTAL REQUIRED	TOTAL PROVIDED
LEVEL D1								
TOTAL	1316 SF	1316 SF	2229 SF	2229 SF	7090 SF			
100% OPEN	5 SF	7 SF	52 SF	0 SF	64 SF	64 SF (1%)		
53% OPEN	56 SF	70 SF	597 SF	0 SF	723 SF	383 SF (5.4%)		
65% OPEN	168 SF				168 SF	109 SF (1.5%)		
		1					1418 SF (20%)	556 SF (7.9%)
LEVEL D2								
TOTAL	1316 SF	1316 SF	2229 SF	2229 SF	7090 SF			
100% OPEN	290 SF	248 SF	275 SF	42 SF	855 SF	855 SF (12%)		
53% OPEN	226 SF	194 SF	539 SF	389 SF	1348 SF	714 SF (10%)		
							1418 SF (20%)	1569 SF (22%)
LEVEL D3								
TOTAL	1316 SF	1316 SF	2073 SF	2264 SF	6969 SF			
100% OPEN	290 SF	25 SF	382 SF	228 SF	925 SF	925 SF (13.2%)		
53% OPEN	226 SF	278 SF	428 SF	426 SF	1358 SF	720 SF (10.3%)		
*							1394 SF (20%)	1645 SF (23.6%
			1				4230 SF (20%)	3897 SF (18.4%)

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

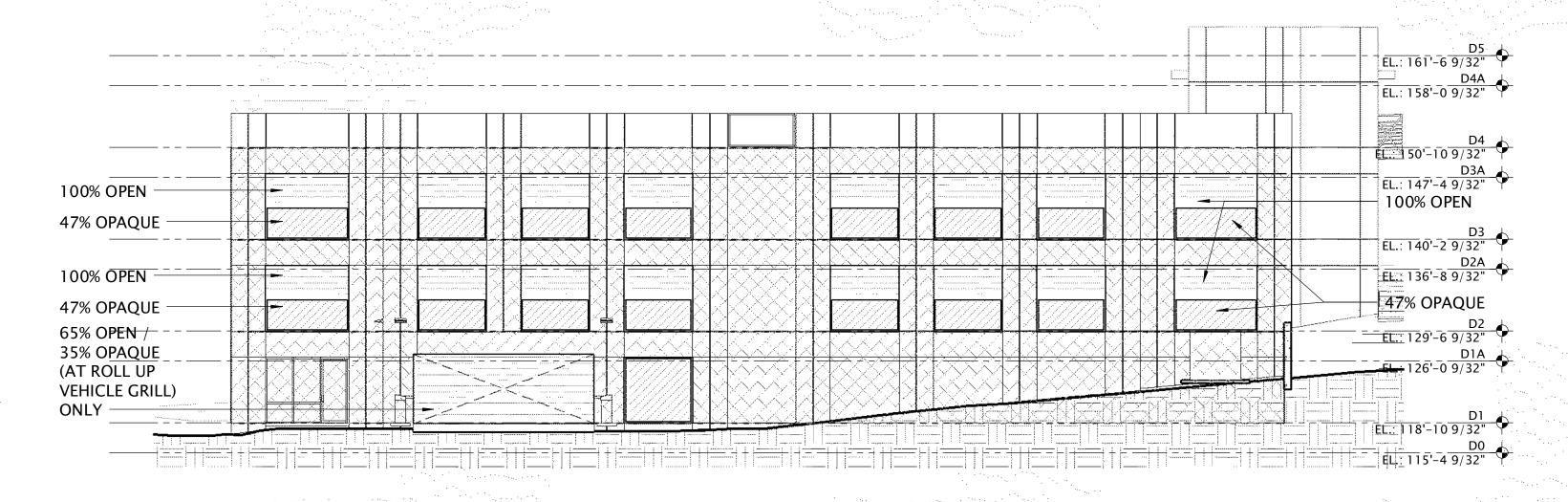
47% OPAQUE —

D3A

EL.: 147'-4 9/3,

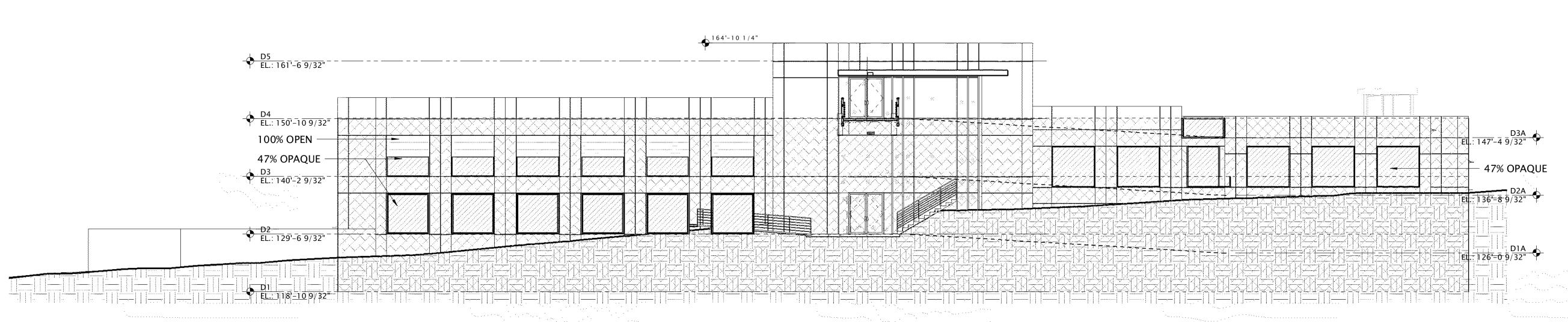
100% OPEN

47% OPAQUE

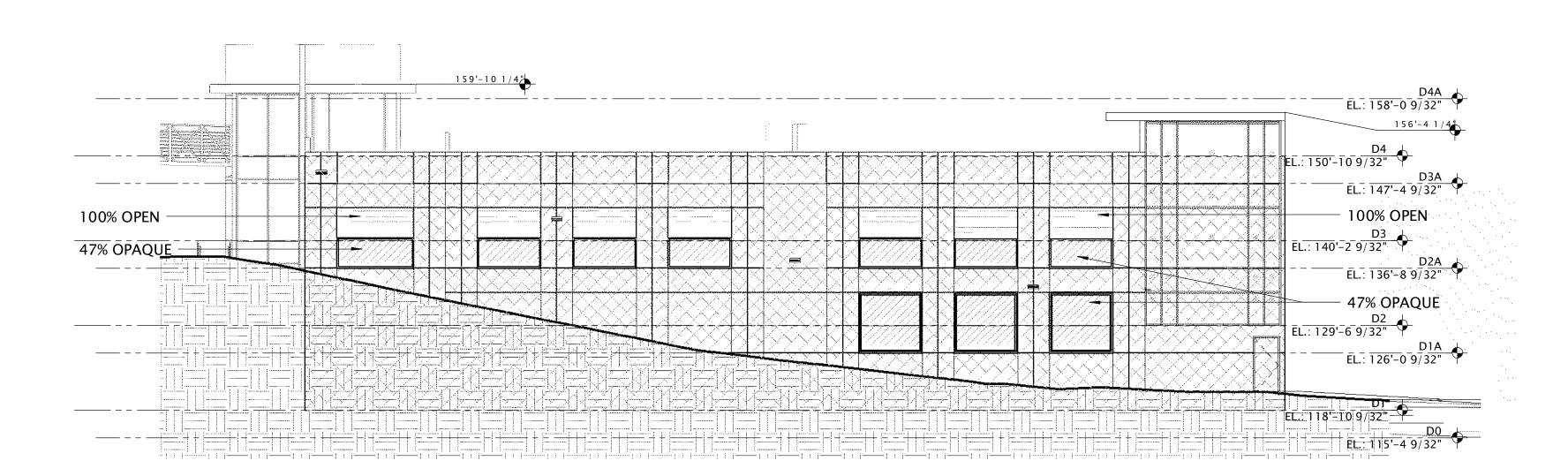


TOTAL REQUIRED 40% OPENING LENGTH AT PERIMETER PER SECTION 406.5

PERIMETER	TOTAL REQUIRED	TOTAL PROVIDED
664.6'	265.8' (40%)	177.8' (26.7%)
664.6'	265.8' (40%)	343.8' (51.7%)
664.6'	265.8' (40%)	347.8' (52.3%)
	664.6' 664.6'	664.6' 265.8' (40%) 664.6' 265.8' (40%)

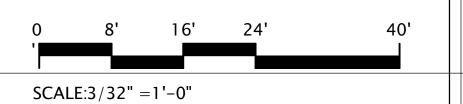


3 WEST ELEVATION A003 SCALE: 3/32" = 1'-0"



SOUTH ELEVATION

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



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100% OPEN

- 47% OPAQUE

EL.: 129'-6 9/32"

















ISSUE LOG 03/17/2020 50% SCHEMATIC PHASE 100% SCHEMATIC PHASE 04/10/2020

DATE NO. DESCRIPTION

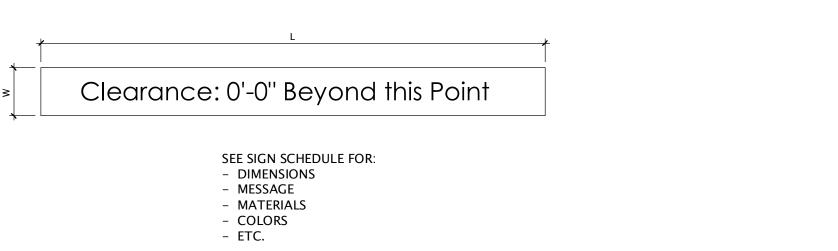
Sheet Name: VENTILATION CALCULATIONS

Sheet Number: Project Number:

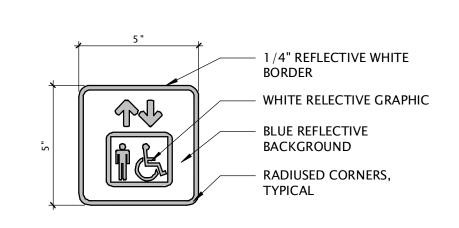
2001.00



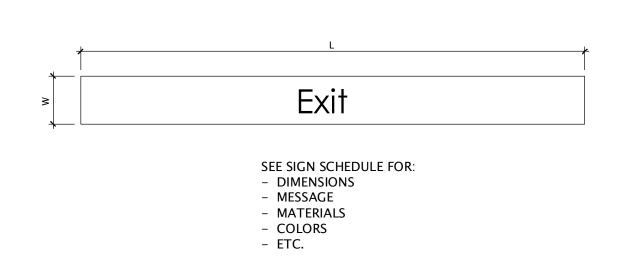
TYP. CLEARANCE BAR SIGN FACE DETAIL



TYP. CLEARANCE BAR SIGN FACE DETAIL 2



ELEVATOR SIGN FACE COMPONENT DETAIL



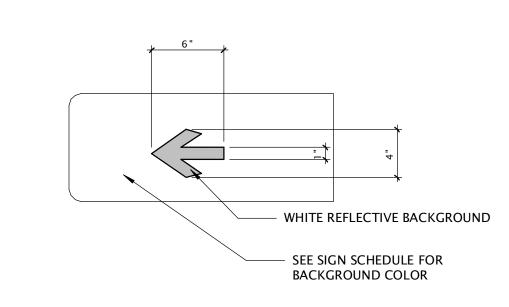
CLEARANCE BAR EXIT SIGN FACE DETAIL



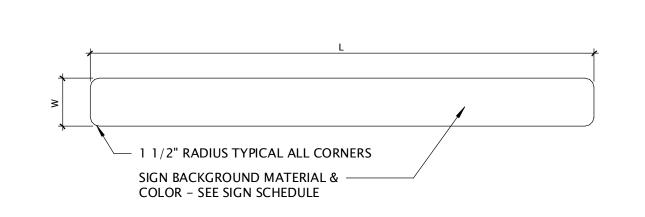
CLEARANCE BAR WRONG WAY DETAIL



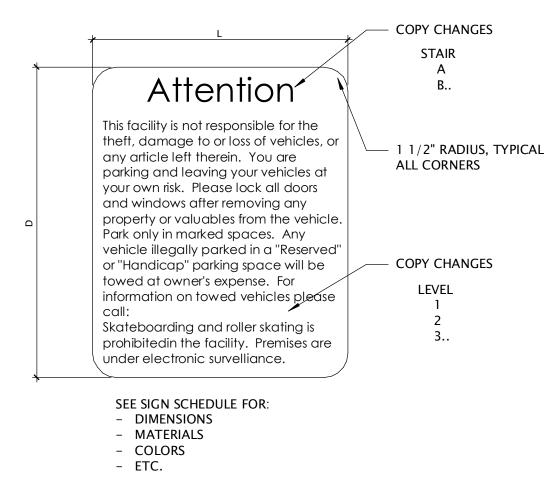
ELEVATOR SIGN FACE DETAIL



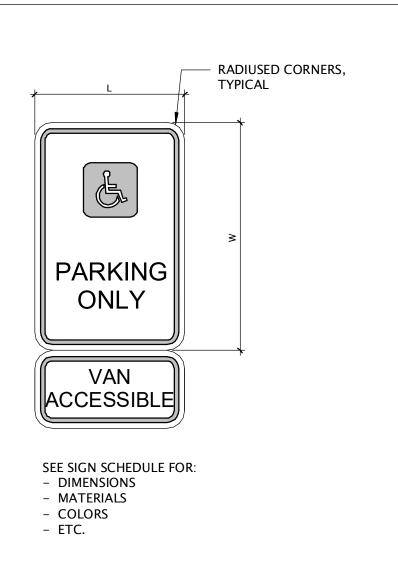
ARROW SIGN FACE COMPONENT DETAIL



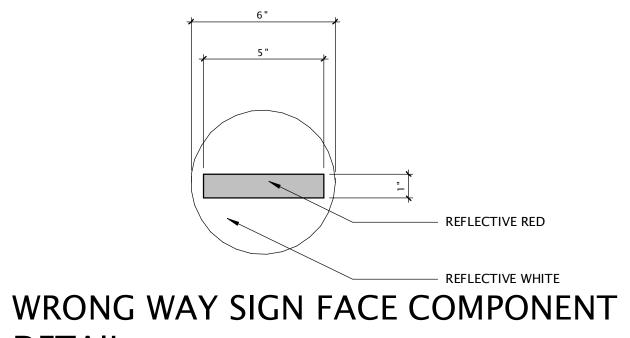
TYPICAL SIGN FACE DETAIL



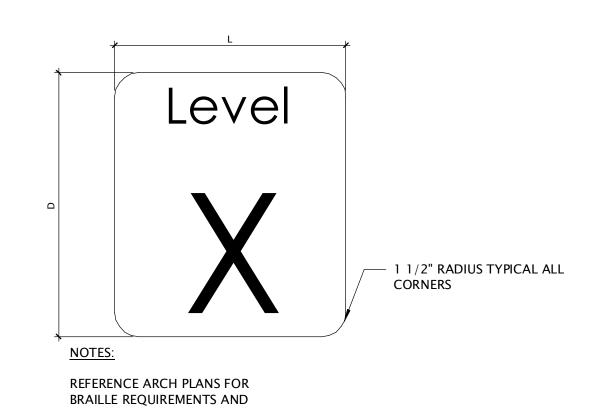
GARAGE REGULATORY SIGN FACE DETAIL



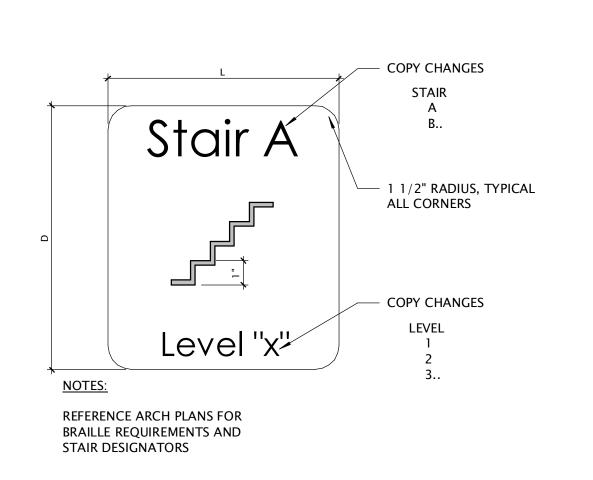
VAN ADA SIGN FACE DETAIL



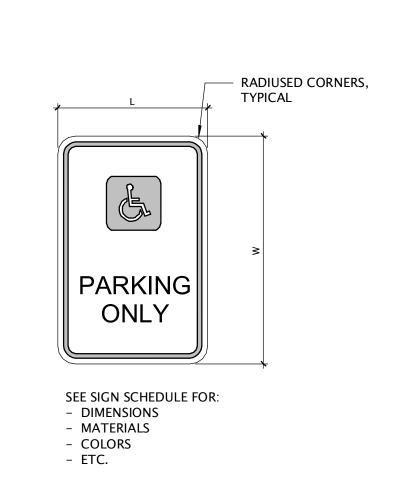
WRONG WAY SIGN FACE COMPONENT DETAIL



GARAGE LEVEL SIGN FACE DETAIL



STAIR SIGN FACE DETAIL



ADA SIGN FACE DETAIL



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ISSUE LOG

50% SCHEMATIC PHASE 03/17/2020
100% SCHEMATIC PHASE 04/10/2020

CONSTRUCTION

DATE NO.

2001.00

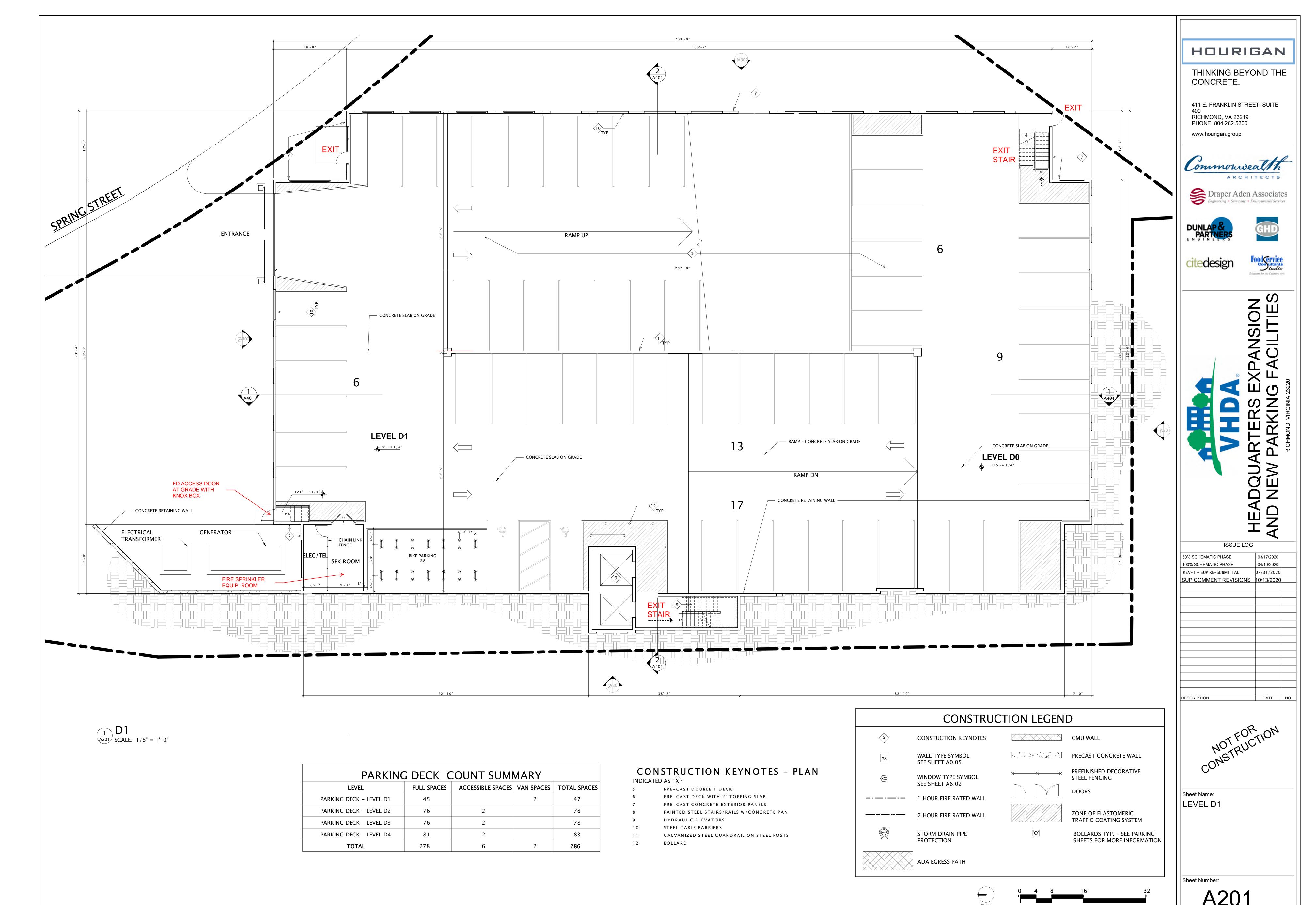
Sheet Name:
GARAGE SIGNAGE

DESCRIPTION

Sheet Number:

Project Number:

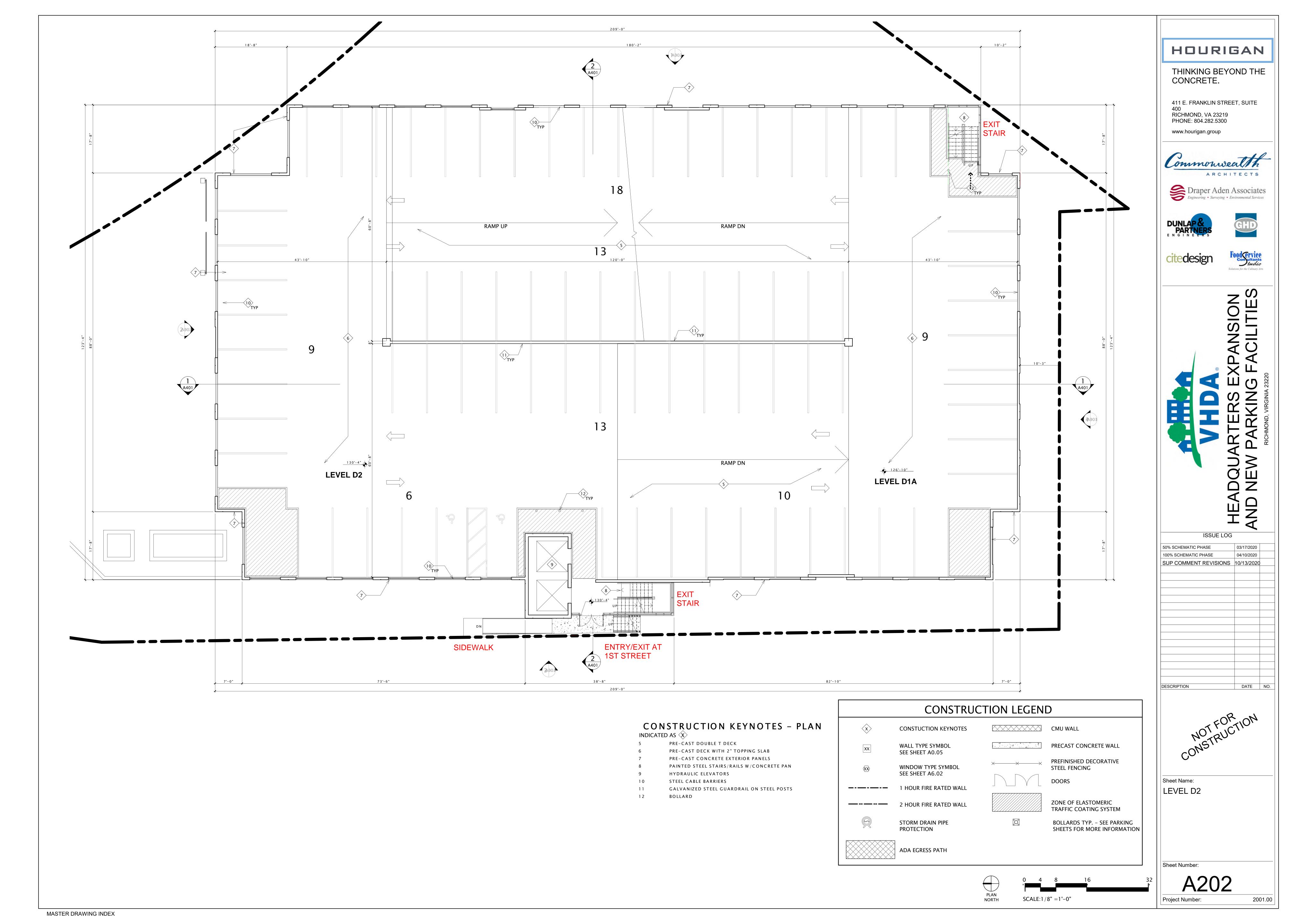
A004

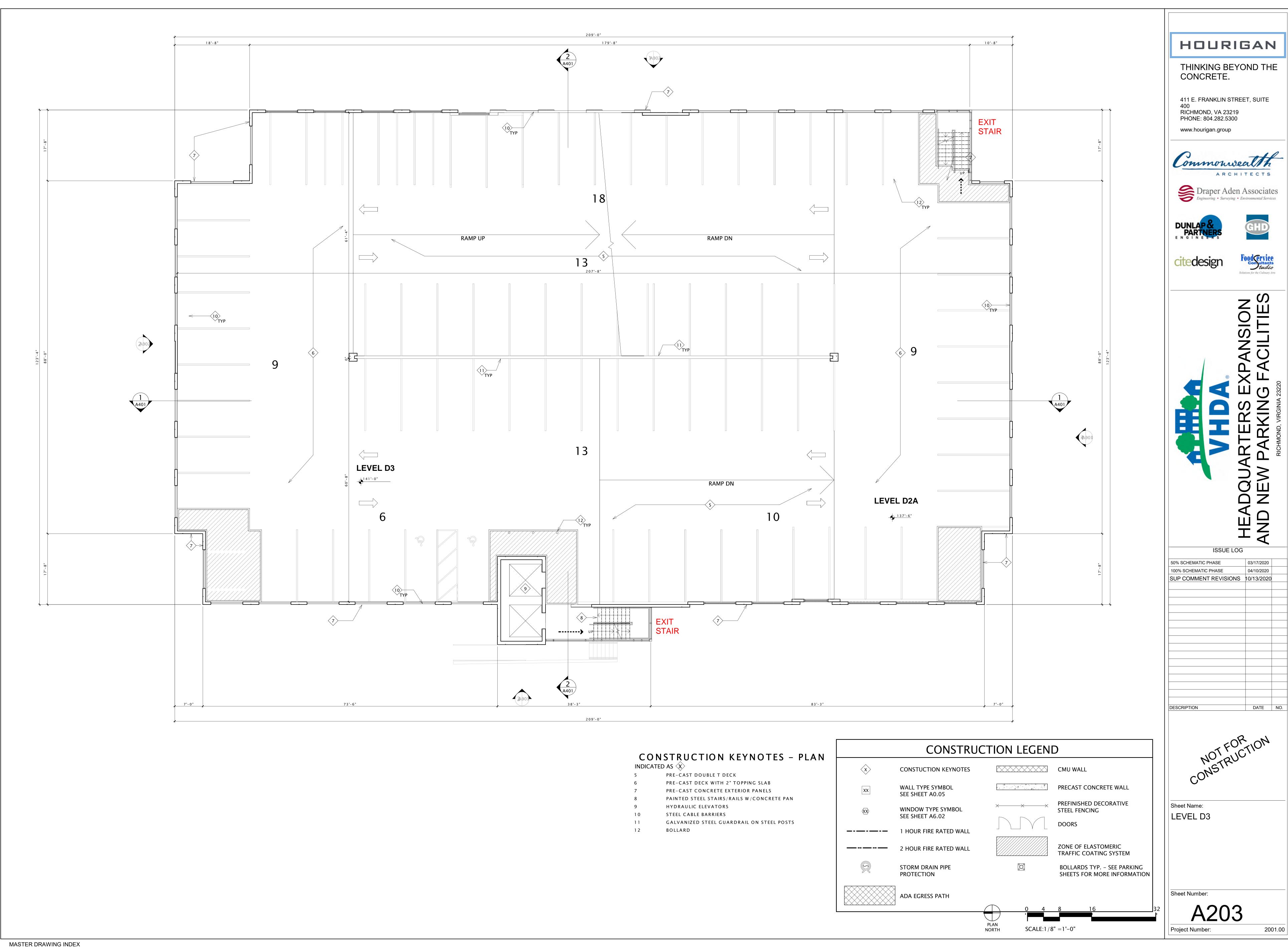


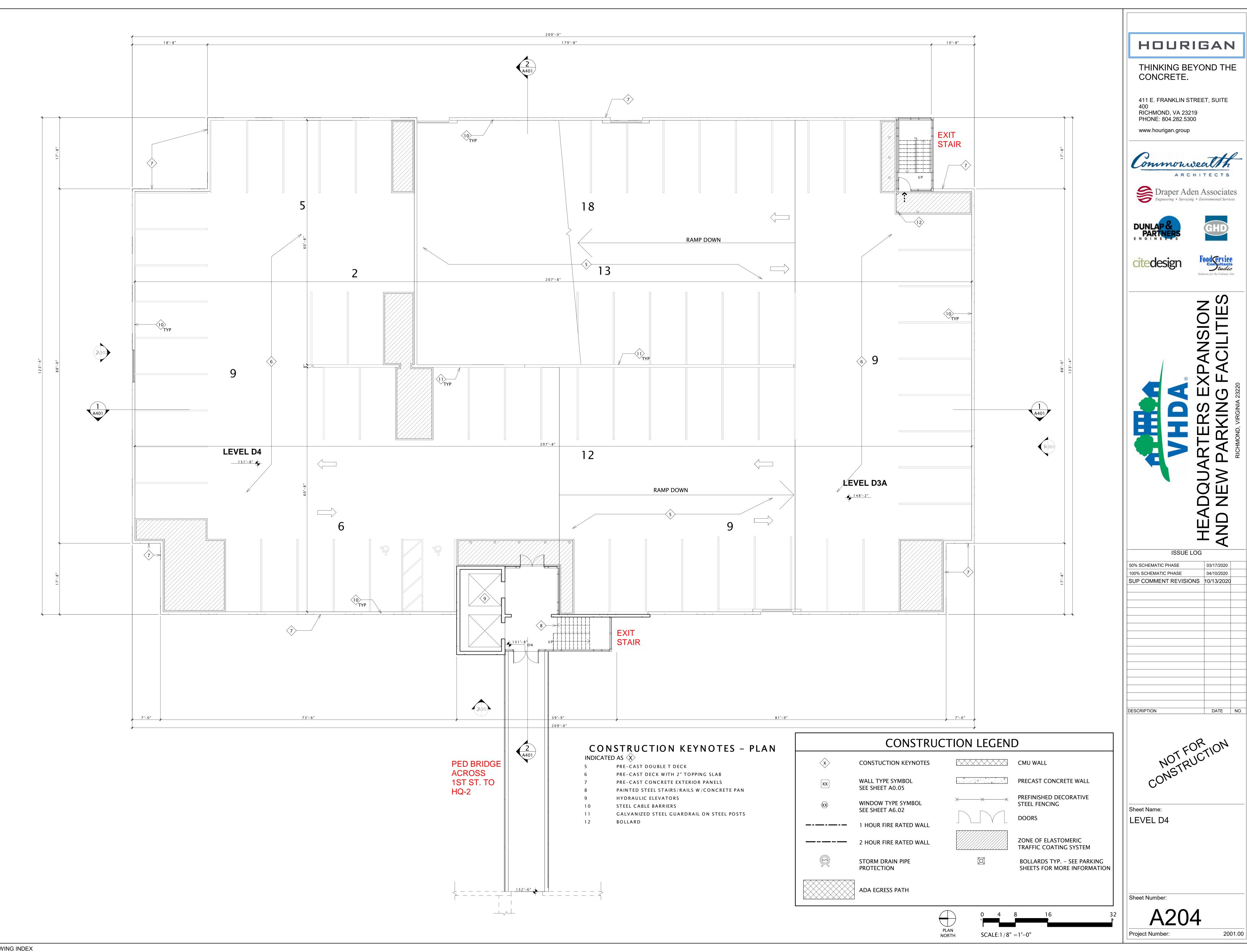
SCALE:1/8" = 1'-0"

2001.00

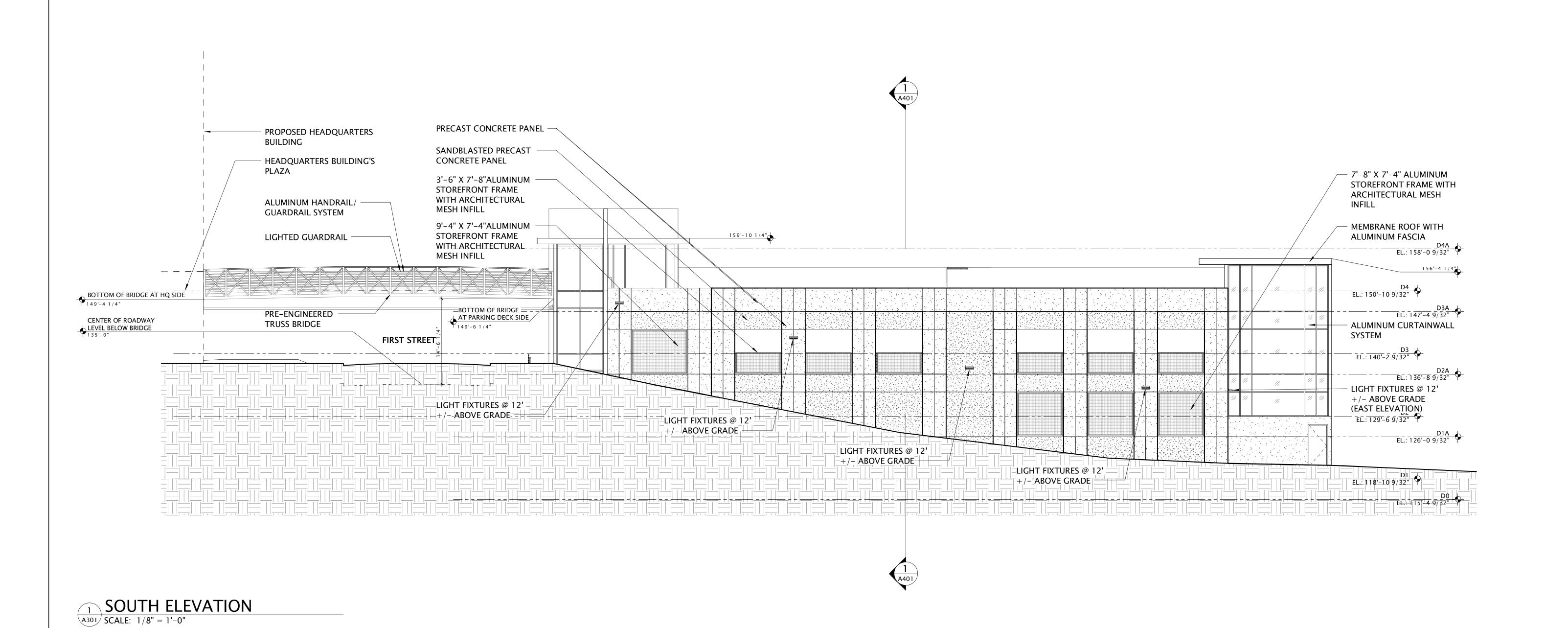
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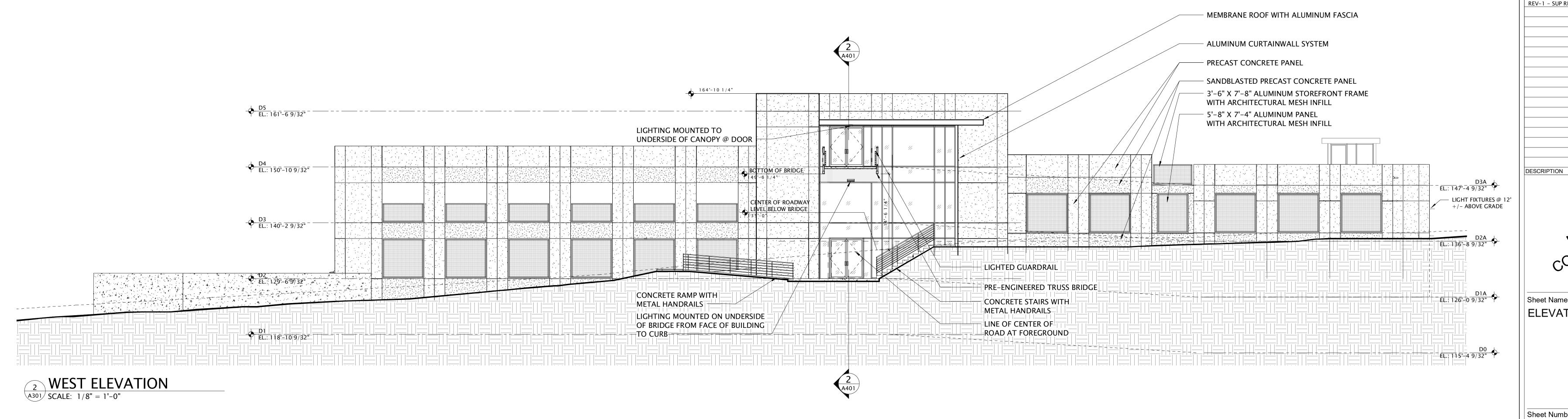






MASTER DRAWING INDEX







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ISSUE LOG 03/17/2020 50% SCHEMATIC PHASE 100% SCHEMATIC PHASE 04/10/2020 REV-1 - SUP RE-SUBMITTAL 07/31/2020

DATE NO.

2001.00

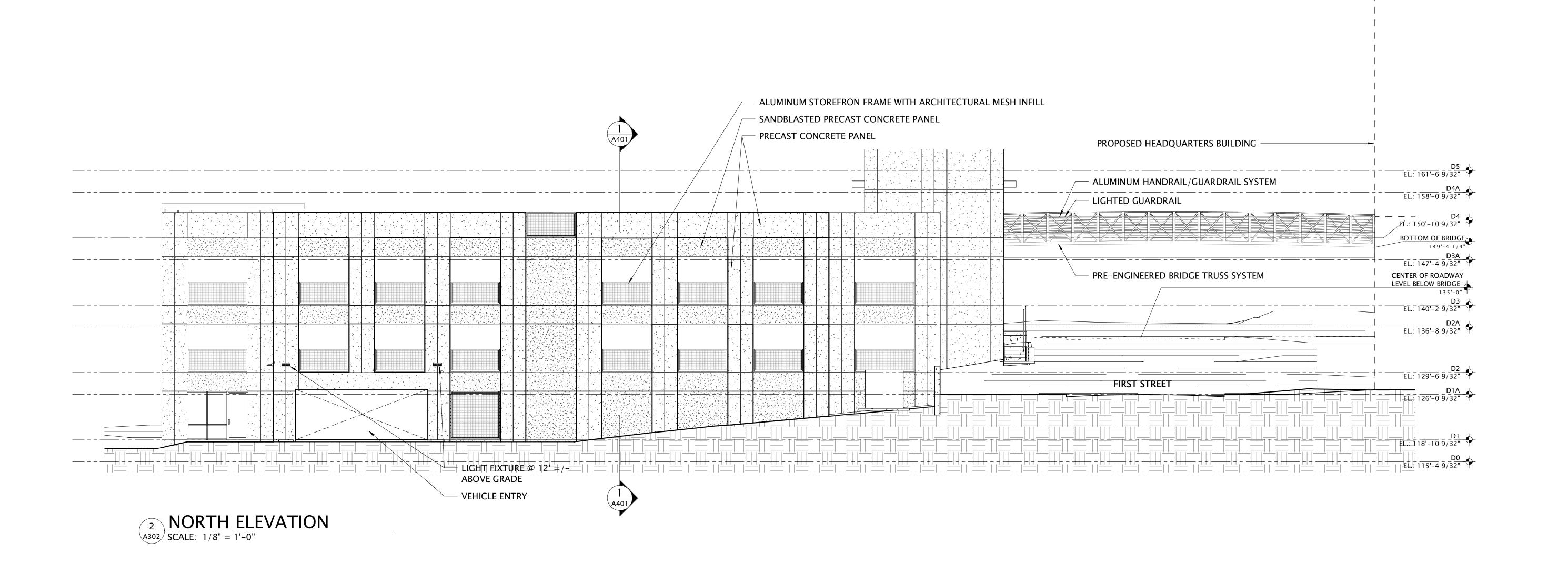
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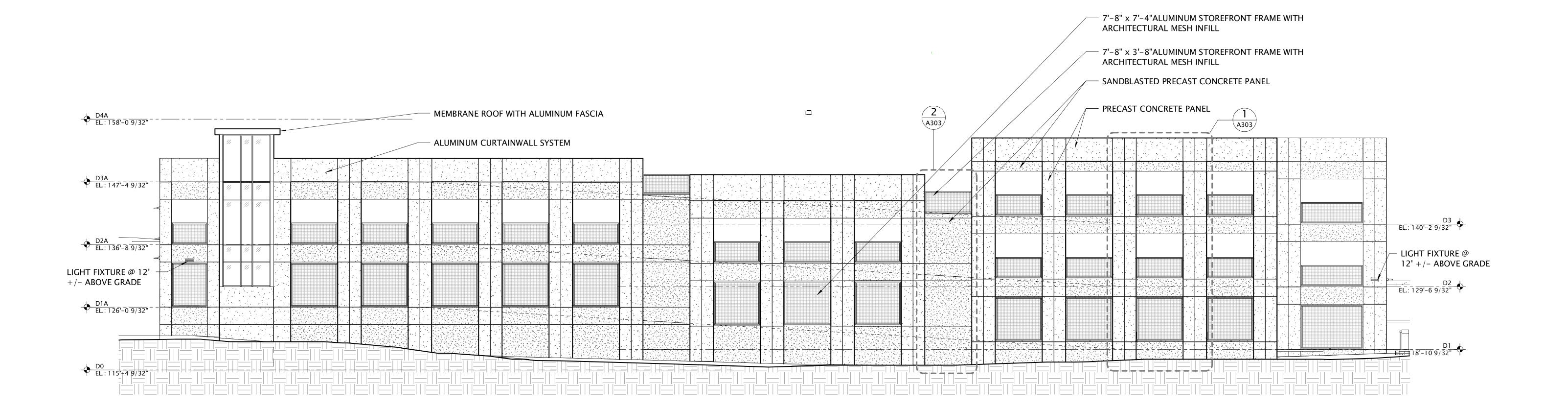
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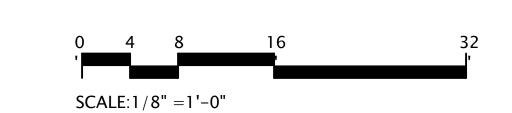
SCALE: 1/8" = 1'-0"

Project Number:

MASTER DRAWING INDEX







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ISSUE LOG 03/17/2020 50% SCHEMATIC PHASE 100% SCHEMATIC PHASE 04/10/2020 07/31/2020 REV-1 - SUP RE-SUBMITTAL

DATE NO.

2001.00

Sheet Name:

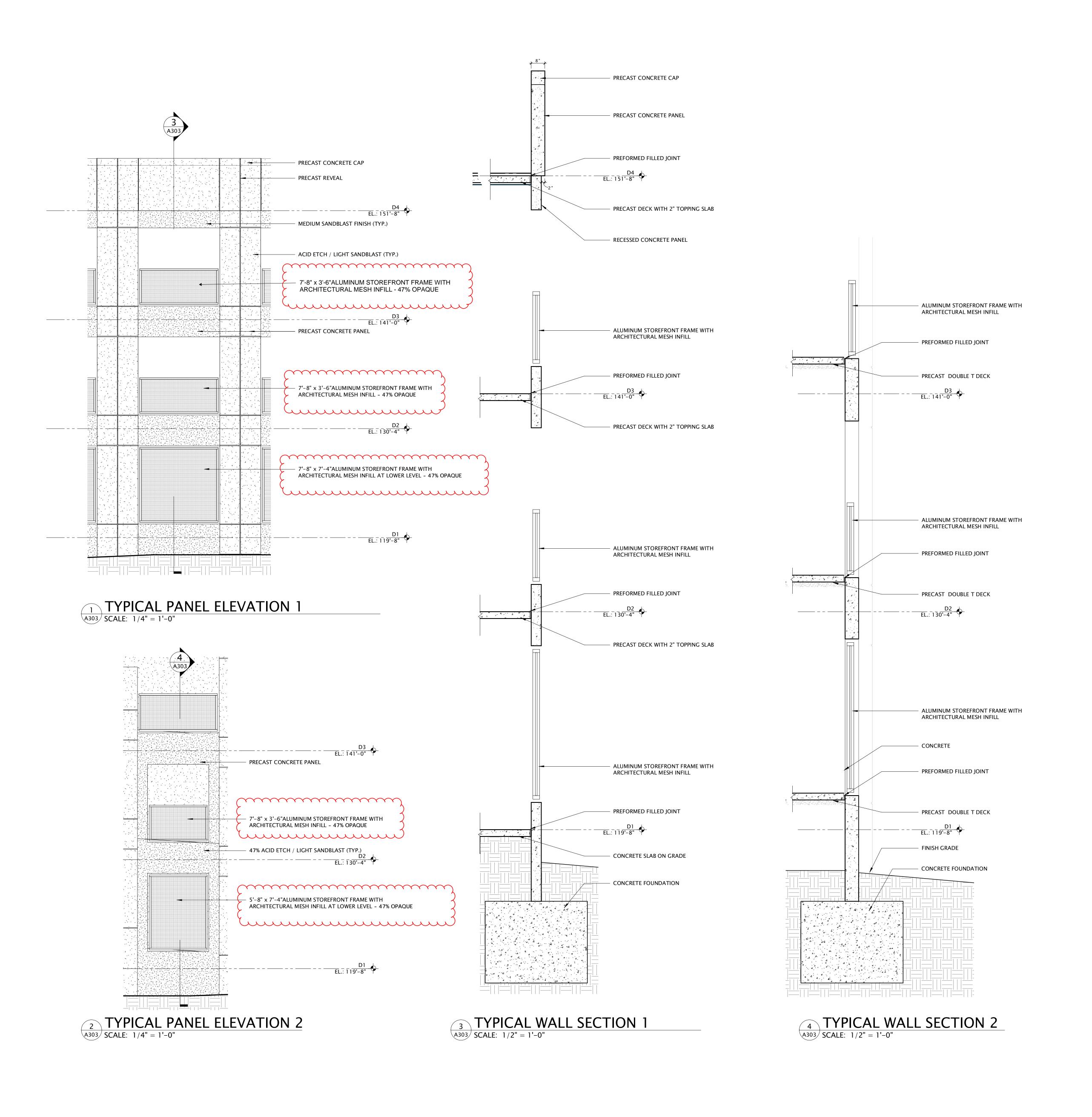
DESCRIPTION

ELEVATIONS

Sheet Number:

Project Number:

1 EAST ELEVATION
A302 SCALE: 1/8" = 1'-0"





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ISSUE LOG

50% SCHEMATIC PHASE 03/17/2020
100% SCHEMATIC PHASE 04/10/2020
SUP REVIEW COMMENTS 10/13/2020

DESCRIPTION DATE NO.

CONSTRUCTION

Sheet Name:
PANEL DETAILS

Sheet Number:

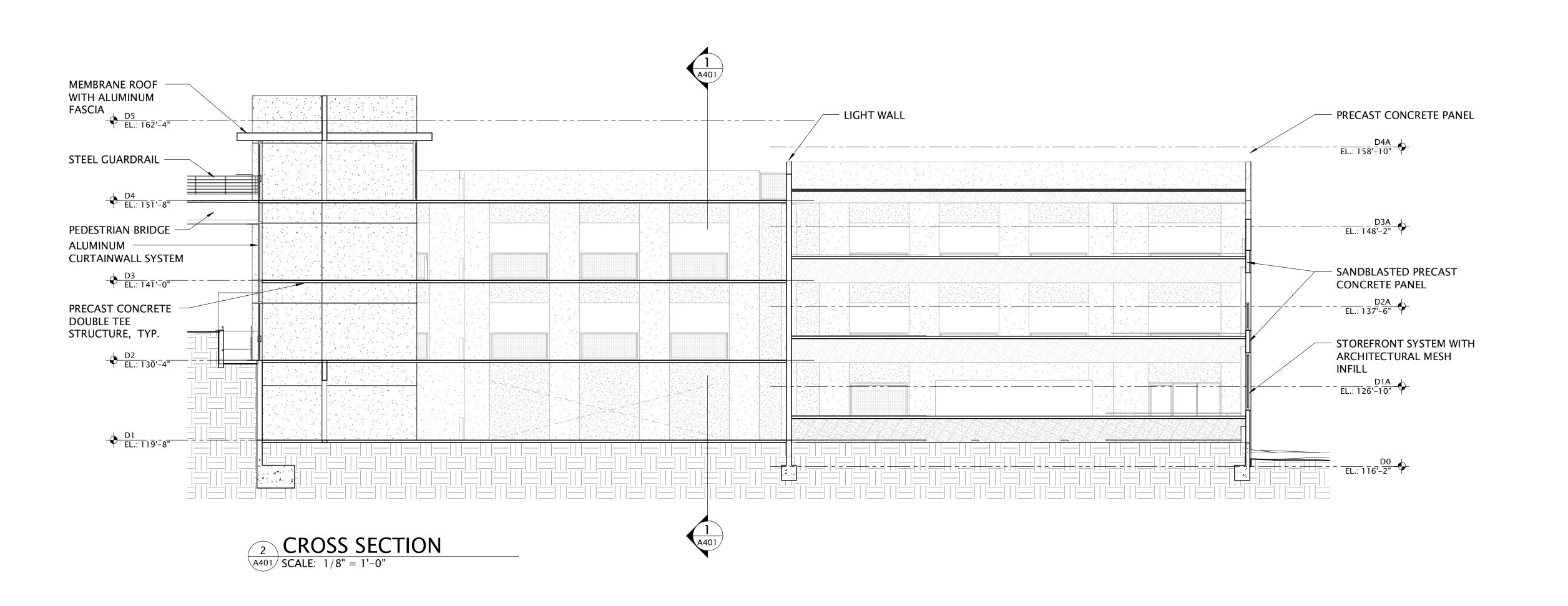
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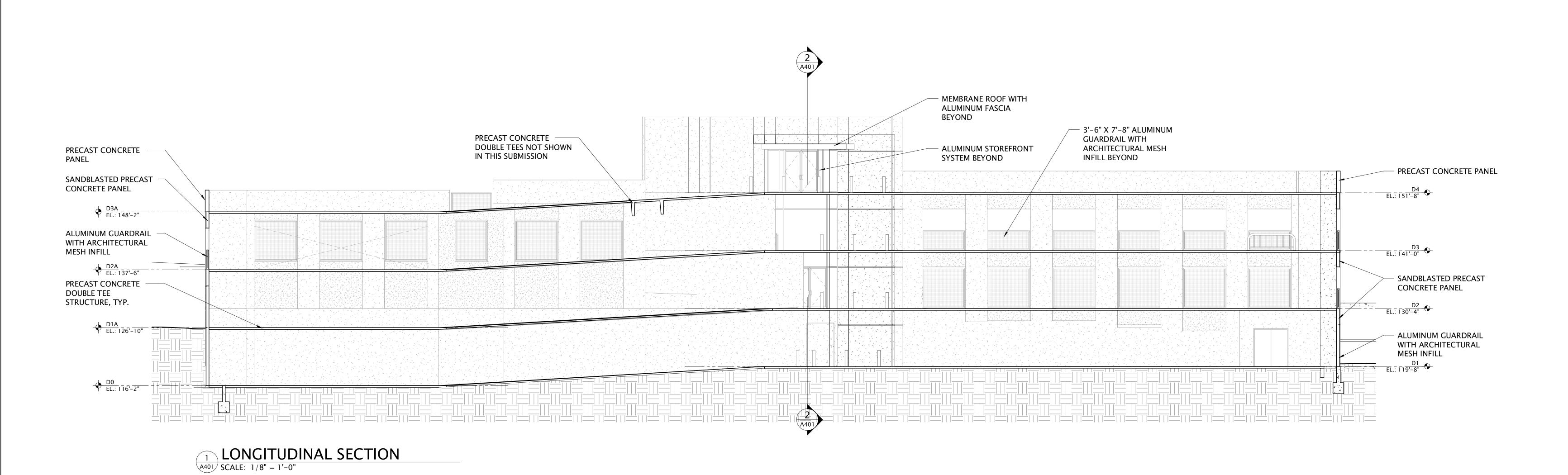
A303

2001.00

______8' A3

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





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

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ISSUE LOG 03/17/2020 50% SCHEMATIC PHASE 100% SCHEMATIC PHASE 04/10/2020 SUP COMMENT REVISIONS 10/13/2020

DATE NO.

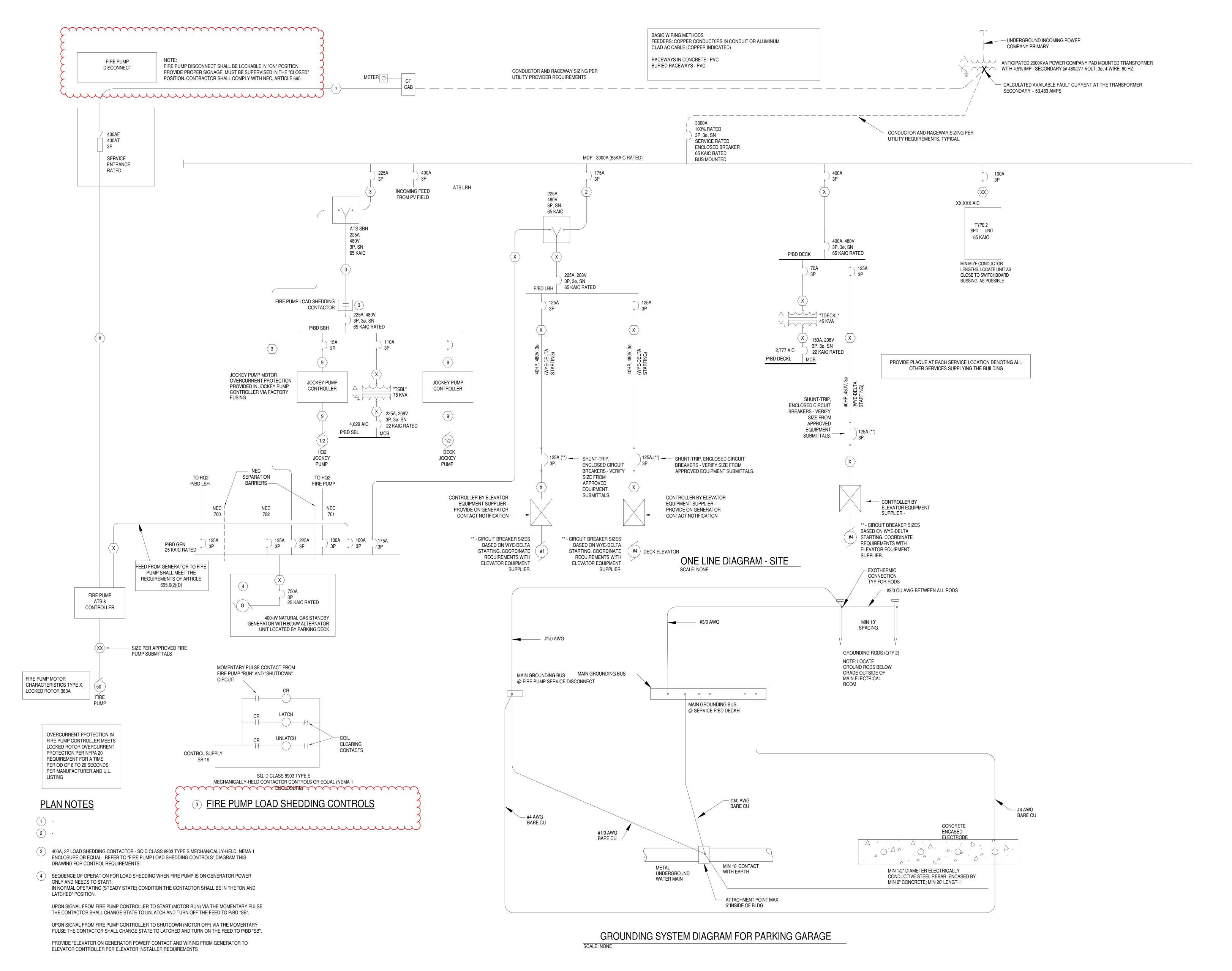
2001.00

Sheet Name: SECTIONS

DESCRIPTION

Sheet Number:

Project Number:



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TERS EXPANSION ARKING FACILITIES

ISSUE LOG
SUP COMMENT REVISIONS 10/13/2020

100% SCHEMATIC PHASE 4/14/20 2
50% SCHEMATIC PHASE 3/17/20 I
DESCRIPTION DATE NO.

CONSTRUCTION

Sheet Name:
ONE LINE DIAGRAM

Sheet Number:

E00

Hourigan Project Number:



1 D1 - LIGHTING 1/8" = 1'-0"

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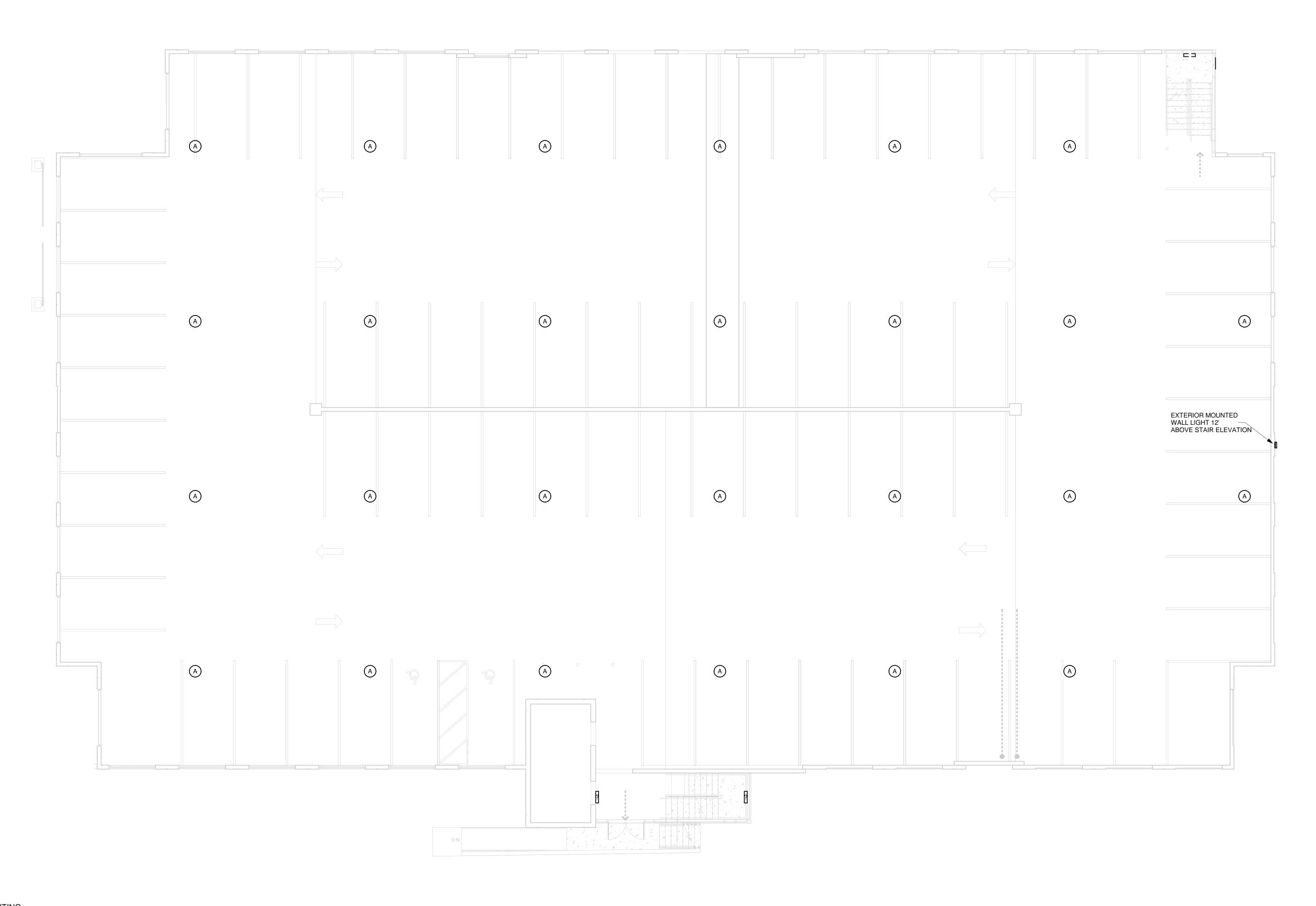
ISSUE LOG 100% SCHEMATIC PHASE 4/14/20 2 50% SCHEMATIC PHASE 3/17/20 I DATE NO.

Sheet Name: ELECTRICAL - LIGHTING -D1 FLOOR PLAN

Sheet Number:

Hourigan Project Number:

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



1 D2 - LIGHTING 1/8" = 1'-0" HOURIGAN

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HEADQUAR AND NEW P.

ISSUE LOG

CHEMATIC PHASE 4/14/20

100% SCHEMATIC PHASE4/14/20250% SCHEMATIC PHASE3/17/20IDESCRIPTIONDATENO.

CONSTRUCTION

Sheet Name:

ELECTRICAL - LIGHTING D2 FLOOR PLAN

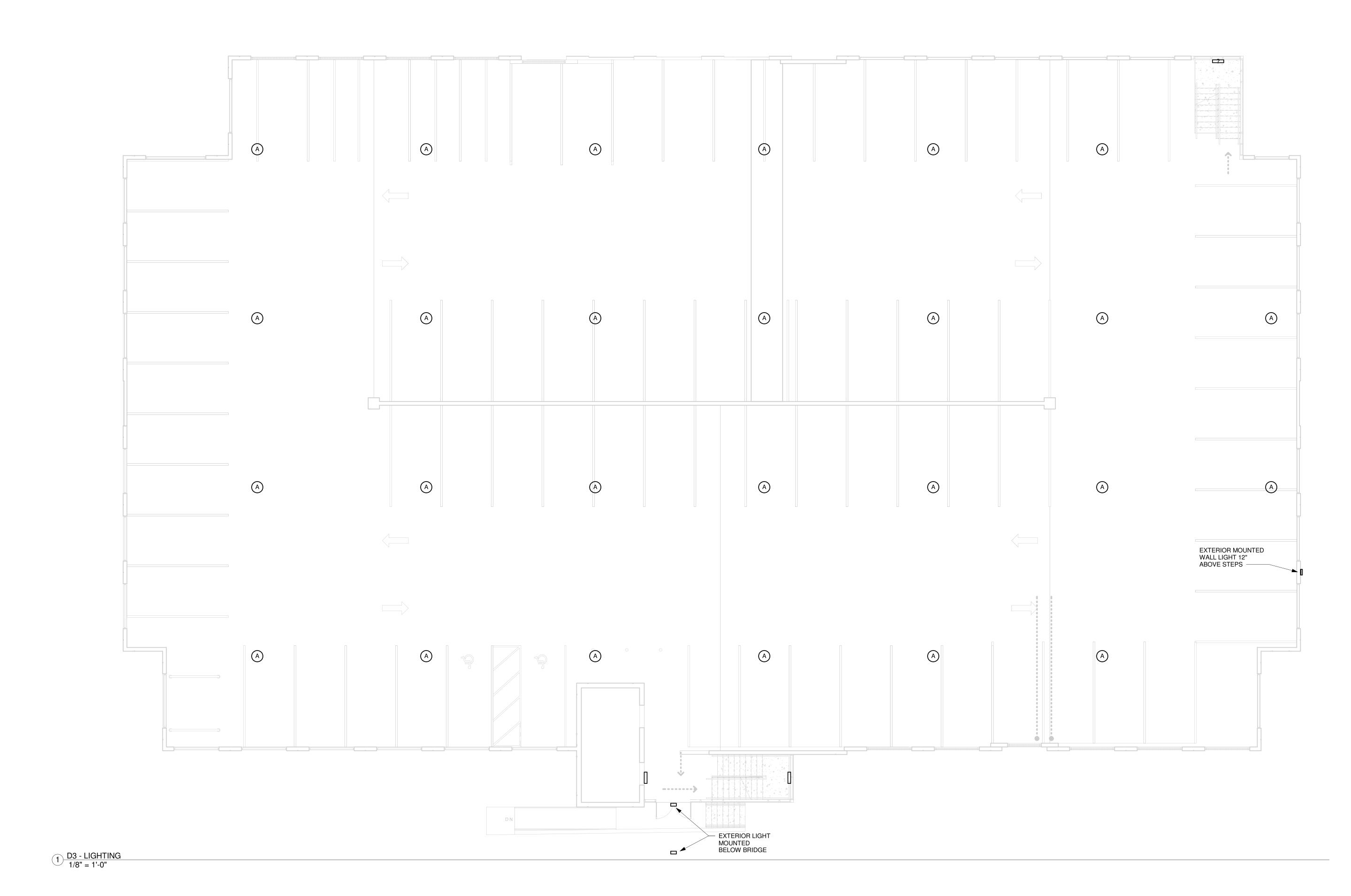
Sheet Number:

E212

Hourigan Project Number:

24' - 0"

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



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ISSUE LOG

100% SCHEMATIC PHASE4/14/20250% SCHEMATIC PHASE3/17/20IDESCRIPTIONDATENO.

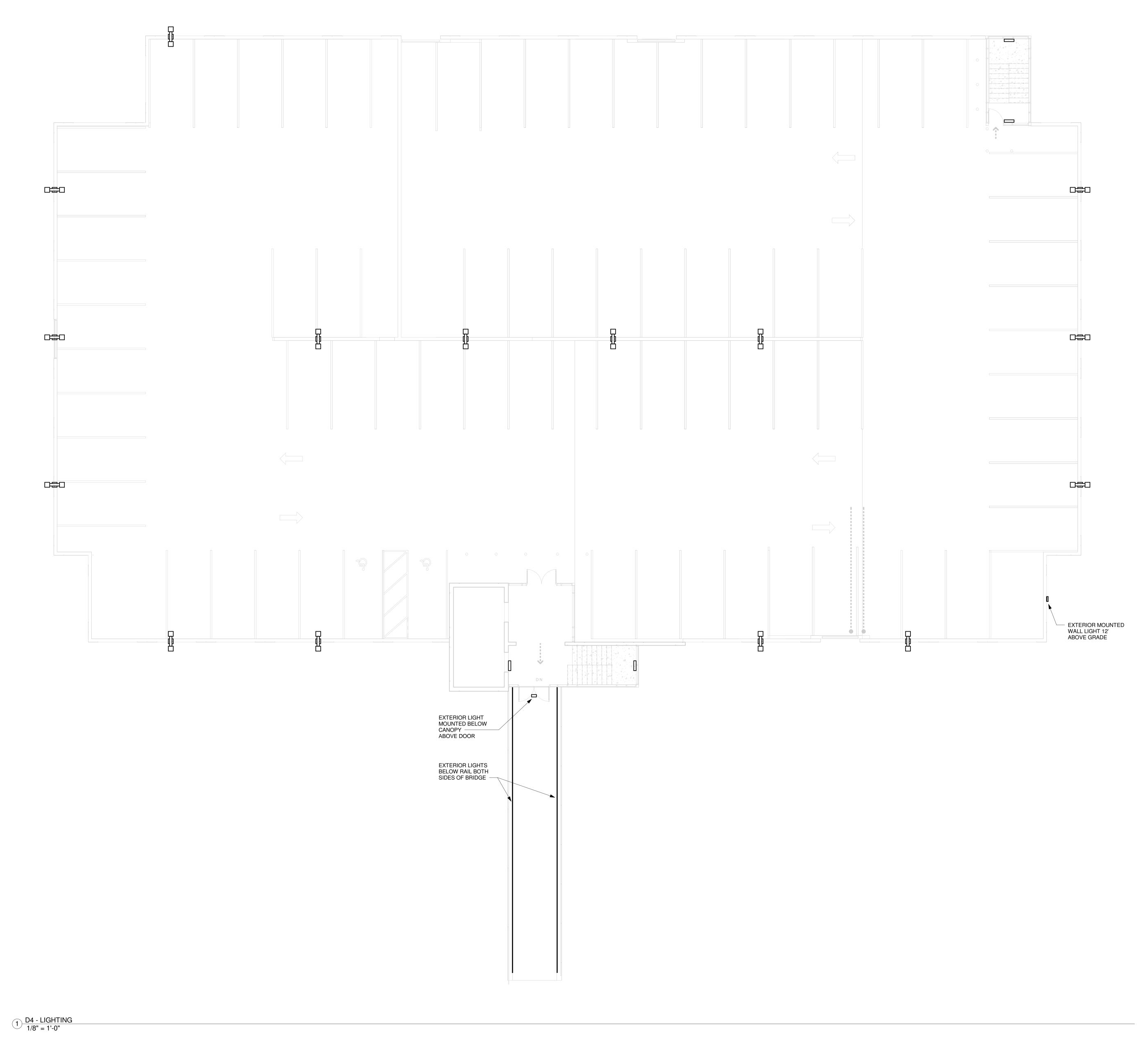
CONSTRUCTION

Sheet Name:

ELECTRICAL - LIGHTING
D3 FLOOR PLAN

Sheet Number:

E213



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RS EXPANSION KING FACILITIES

HEADQUARTE AND NEW PARK

ISSUE LOG

IO0% SCHEMATIC PHASE 4/14/20 2

50% SCHEMATIC PHASE 3/17/20 I

DESCRIPTION DATE NO.

CONSTRUCTION

Sheet Name:

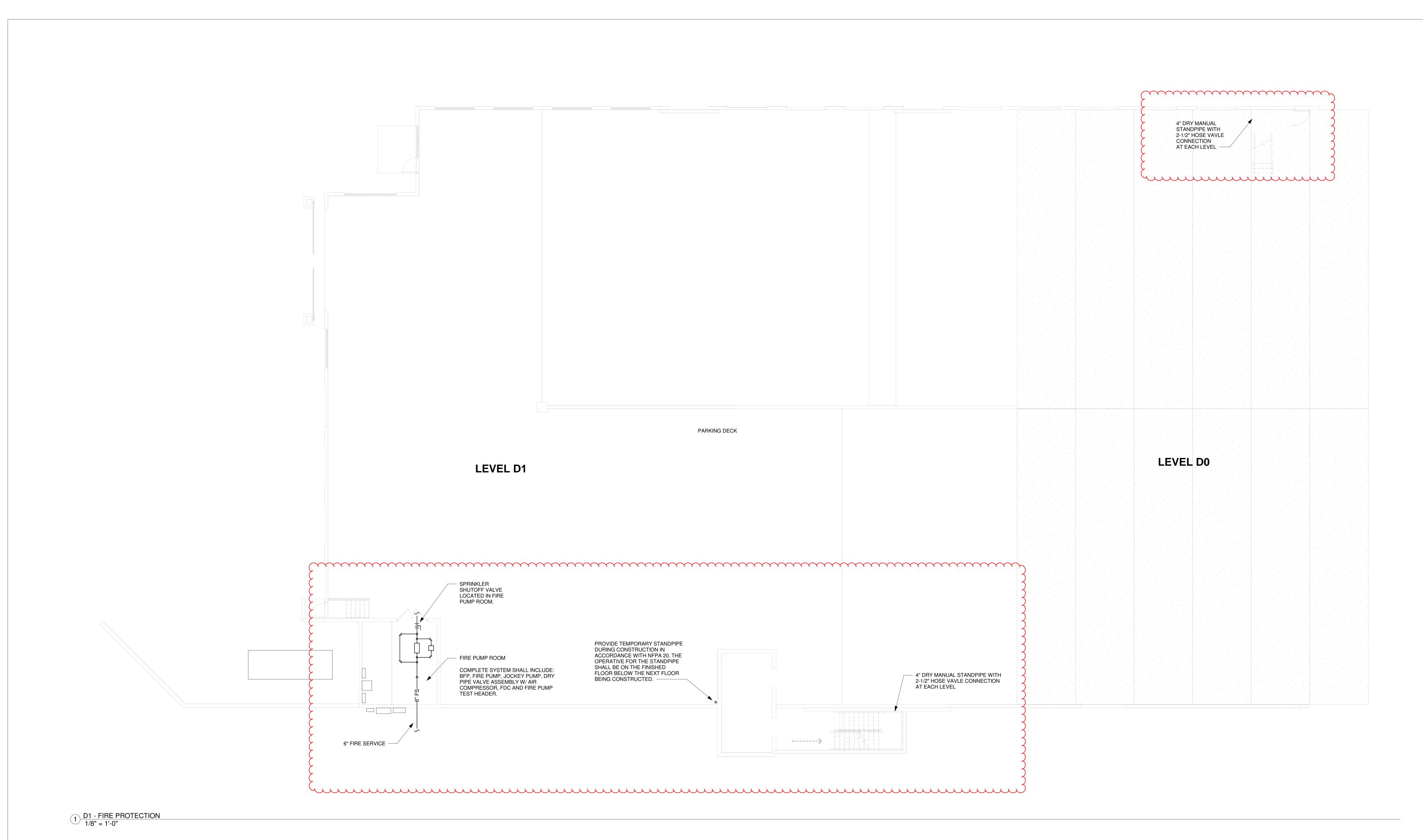
ELECTRICAL - LIGHTING
D4 FLOOR PLAN

Sheet Number:

E214

Hourigan Project Number:

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



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ISSUE LOG SUP COMMENT REVISIONS 10/13/2020

SUP COMMENT REVISIONS | 10/13/20 | 3 100% SCHEMATIC PHASE 04/14/20 2 03/17/20 50% SCHEMATIC PHASE DATE NO. DESCRIPTION

Sheet Name: PLUMBING - FIRE PROTECTION - D1 FLOOR PLAN

Sheet Number: