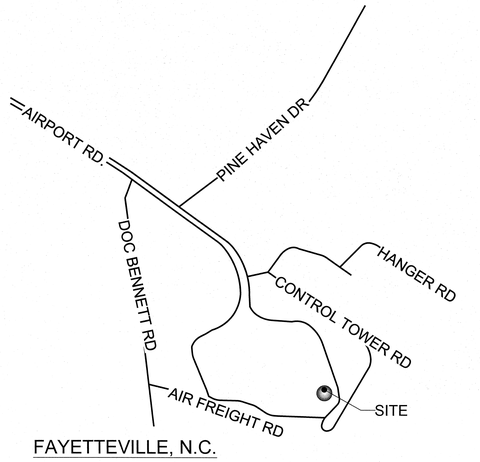

FAYETTEVILLE, N.C.

VICINITY MAP (N.T.S.)

N

PLAN SHEET INDEX

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PROPERTY INFORMATION

Property Identification Number:	0435-70-1215
Property Address / Location:	400 AIRPORT RD FAYETTEVILLE NC

Owner / Client Contact:	Representative
Owner / Client Address:	Address - City, State Zip
Owner / Client Phone & Fax:	Ph.: (910) 123-4567 Fx.: (910) 123-4567

GENERAL NOTES

ALL GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND OTHER INFORMATION INDICATED ON THIS SHEET SHALL APPLIED TO ALL CONSTRUCTION DOCUMENTS AND RELATED MATERIAL IN THIS SET.

1. THE GENERAL CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AT THE JOB SITE.
2. ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE BENCHMARK AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR WITH THE SURVEYOR OF RECORD PRIOR TO BEGINNING CONSTRUCTION. SEE SHT. C1.0 FOR BENCHMARK TABLE. BENCHMARKS OBTAINED FROM ACCU TECH SURVEYING & MAPPING, LLP DATED 1-20-16 PROVIDED BY GORDON JOHNSON ARCHITECTURE.
3. ALL DIMENSIONS AND ALL ELEVATIONS ARE MEASURED TO BACK OF CURB UNLESS OTHERWISE NOTED.
4. THE INTENT OF THE LIMITS OF CONSTRUCTION (LOC) SHOWN ON THE DRAWINGS IS TO DEFINE THE GENERAL AREA TO CONSTRUCT, INSTALL AND/OR MODIFY THE SITE IMPROVEMENTS. TYPICALLY, THE LOC WILL FOLLOW RIGHT-OF-WAY OR PROPERTY BOUNDARIES. HOWEVER, THE LOC MAY BE SHOWN IN CERTAIN LOCATIONS FOR READABILITY AND CLARITY PURPOSES. THE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE REGARDING ANY QUESTIONS AS TO THE EXACT LOCATION OF THE LOC PRIOR TO BID AND PRIOR TO BEGINNING CONSTRUCTION. ALL ITEMS SHOWN ON THESE PLANS THAT DO NOT SPECIFICALLY STATE 'NOT-IN-CONTRACT (NIC)' SHALL BE INCLUDED IN THE BID COST, INCLUDING ITEMS THAT MAY BE OUTSIDE THE LOC BOUNDARY.
5. LOCATIONS OF EXISTING UTILITY LINES HAVE BEEN TAKEN FROM UTILITY RECORDS SUPPLEMENTED BY FIELD INSPECTIONS AND SHOULD INDICATE IN GENERAL THE TYPE OF UNDERGROUND FACILITIES NOW IN SERVICE. LOCATIONS SHOWN ARE NOT GUARANTEED. DEVELOPERS OR CONTRACTORS SHALL NOT ONLY MAKE SUBSURFACE INVESTIGATIONS BUT SHALL ALSO ALLOW FOR CONTINGENCIES WHICH MIGHT ARISE BY REASON OF ENCOUNTERING UNRECORDED LINES OR LINES BEING IN DIFFERENT LOCATIONS THAN INDICATED ON THIS PLAN. **AT LEAST 48-HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY, EXCAVATION, GRADING, OR DIGGING ON THE SITE, THE GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES TO VERIFY AND/OR FIELD-LOCATE THEIR RESPECTIVE UTILITIES (THE NORTH CAROLINA ONE CALL CENTER - 1-800-632-4949).** ALL DAMAGE INCURRED TO EXISTING UTILITY LINES DURING CONSTRUCTION SHALL BE REPAIRED AT THE GENERAL CONTRACTORS EXPENSE.
6. ALL WASTE MATERIAL SHALL BE LEGALLY DISPOSED OF OFF-SITE.
7. A FORMAL EROSION AND SEDIMENTATION CONTROL PERMIT IS REQUIRED FOR THIS SITE UNDER THE REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES (NCDENR). THE GENERAL CONTRACTOR IS REQUIRED TO AND SHALL FOLLOW ALL LOCAL, STATE AND FEDERAL REGULATIONS TO MINIMIZE EROSION AND THE TRANSPORT OF SEDIMENT OFF-SITE DURING, INCLUDING THE PLACEMENT AND MAINTENANCE OF CONTROL MEASURES. ALL MEASURES REQUIRED SHALL BE INCLUDED IN THE BID COST WHETHER SPECIFICALLY INDICATED OR NOT.
8. ALL PARKING STRIPES SHALL BE 4" WIDE AND SHALL BE MARKED WITH STANDARD WHITE TRAFFIC PAINT. ALL ISLANDS AND TRAFFIC ARROWS SHALL BE MARKED WITH STANDARD WHITE TRAFFIC PAINT.
9. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF FAYETTEVILLE, CUMBERLAND COUNTY AND STATE REQUIREMENTS.
10. DISTURBED AREAS NOT COVERED BY ASPHALT OR OTHER IMPERMEABLE SURFACES SHALL BE SEEDED AND STABILIZED PER SPECIFICATIONS.
11. ACCESSIBLE PARKING SPACES, ACCESS AISLES, & SIGNAGE SHALL BE PROVIDED BY THE GENERAL CONTRACTOR AND INSTALLED PER FEDERAL, STATE, AND LOCAL REQUIREMENTS UNDER THE AMERICANS WITH DISABILITIES ACT (ADA). STANDARD R7-8 RESERVED PARKING AND MAXIMUM PENALTY $250 NCGS 20.37.6 SIGNS MUST BE INSTALLED IN FRONT OF ALL ACCESSIBLE PARKING SPACES. "VAN ACCESSIBLE" SIGNS MUST BE PROVIDED IN FRONT OF THE VAN ACCESSIBLE PARKING SPACE(S).
12. ALL TRAFFIC CONTROL DEVICES, PAVEMENT MARKINGS, SIGNS, AND SIGNALS SHALL BE DESIGNED, INSTALLED AND MAINTAINED IN COMFORMANCE WITH THE STANDARDS SET FORTH IN THE NORTH CAROLINA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
13. THESE PLANS INDICATE THE MAJOR DEMOLITION COMPONENTS TO BE REMOVED AND/OR, RELOCATED. HOWEVER, THE CONTRACTOR SHALL DEMOLISH AND/OR RELOCATE ALL MISCELLANEOUS COMPONENTS NOT SPECIFICALLY INDICATED ON THESE PLANS TO PROVIDE A CLEAN SITE FOR THE INSTALLATION OF THE NEW IMPROVEMENTS.
14. SURVEY, BASE MAPPING, & TOPOGRAPHICAL DATA PROVIDED BY GORDON JOHNSON ARCHITECTURE, FAYETTEVILLE, NC, PH: (910) 223-2186.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING TREE PROTECTION FENCING AROUND ALL "AT-RISK" TREES WITHIN THE VICINITY OF THE CONSTRUCTION ACTIVITY WHETHER SPECIFICALLY INDICATED ON THE PLANS OR NOT. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION OR OTHER DEVELOPMENT ACTIVITIES, AND SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE DURATION OF THE PROJECT UNTIL FINAL SITE INSPECTION. REFER TO CONSTRUCTION PLAN DETAIL SHEETS FOR TREE PROTECTION DETAIL(S).
16. AREAS OF SHADED CURB & GUTTER INDICATE THE USE OF CONCRETE "SPILL-OFF" CURB & GUTTER. (SEE SHT. C4.0, #5.)
17. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL & NATURAL RESOURCES & THE NORTH CAROLINA DEPARTMENT OF WATER QUALITY FOR APPROVAL TO REMOVE ALL CONSTRUCTED TEMPORARY & PERMANENT EROSION & SEDIMENTATION CONTROL MEASURES, AND FOR THE APPROVAL OF PERMANENT GROUND COVER.
18. CONTRACTOR SHALL INSTALL A RAIN GAUGE AND MAINTAIN A MONITORING LOG ACCORDING TO NCDENR REQUIREMENTS UNTIL THE AGENCY HAS RELEASED THE SITE.
19. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL ACCORDING TO NCDOT REQUIREMENTS DURING THE CONSTRUCTION OF IMPROVEMENTS IN THE RIGHT-OF-WAY.
20. CONTRACTOR SHALL PROVIDE RED-LINE PRINTS OF ALL CHANGES AND MODIFICATIONS. THIS INFORMATION SHALL BE PROVIDED TO THE DESIGNER OF RECORD AT THE TIME OF SUBSTANTIAL COMPLETION.
21. CONTRACTOR SHALL INSTALL 6-FT HIGH TEMPORARY CHAIN LINK CONSTRUCTION FENCING IN ALL AREAS WHERE DIRECT ACCESS TO CONSTRUCTION ACTIVITY IS POSSIBLE, AND SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH THE OWNER REGARDING THE LOCATION OF THE CONSTRUCTION FENCE AND PEDESTRIAN TRAFFIC CONTROL DURING CONSTRUCTION. ALL FENCING SHALL BE INCLUDED IN THE BID COST WHETHER SPECIFICALLY INDICATED OR NOT.

LEGEND / KEY

	EXISTING	NEW
CABLE / TELEVISION	CA	CA
CENTER LINE		
CONTOUR LINE	100	100
DIVERSION BERM	N/A	DB
EASEMENT		
FENCE	X	X
FIBER OPTIC	FO	FO
FORCE MAIN	FM	FM
NATURAL GAS	G	G
LIMITS OF CONSTRUCTION	N/A	LOC
OVER HEAD ELECTRIC	OE	OE
PROPERTY LINE		
PROPERTY LINE (ADJACENT)	N/A	N/A
RAIL ROAD TRACKS		
RIGHT OF WAY	R/W	R/W
SANITARY SEWER	S	S
SEDIMENT FENCE	N/A	SF
SLOPE DRAIN	N/A	SPD
SLUDGE RETURN LINE	SR	SR
STORM DRAIN	SD	SD
SWALE / DITCH LINE		
TELEPHONE	T	T
UNDERGROUND ELECTRIC	UE	UE
WATER	W	W
ASPHALT PAVEMENT (STANDARD)		
ASPHALT PAVEMENT (HEAVY DUTY)	N/A	
CONCRETE		
GRASS / SOD	N/A	
GRAVEL		
GRAVEL CONST. ENTRANCE	N/A	
PAVERS		
SEDIMENT TRAP	N/A	
SOIL		N/A
VELOCITY DISSIPATION / RIP RAP PROTECTION		
WETLAND AREA		

	EXISTING	NEW
NOTE BUBBLE (GRADING)	N/A	0
NOTE BUBBLE (SITE)	N/A	0
NOTE BUBBLE (UTILITY)	N/A	0
PLUG		
POROUS BAFFLES	N/A	
POST INDICATOR VALVE		
POWER / TELEPHONE POLE		
REDUCER / INCREASER		
RIDGE LINE	N/A	
ROCK DAM / WEIR	N/A	
ROCK PIPE INLET PROTECTION	N/A	
SIGNAGE		
TELEPHONE PEDESTAL	T	T
TREE / SHRUB		varies
TRENCH DRAIN		
WATER METER / VAULT		
WATER VALVE		
WHEEL STOP		
YARD INLET		

ACCESSIBLE RAMP		
AREA LIGHT		
BACK FLOW PREVENTION ASSEMBLY		
BEND	N/A	
BLOCK & GRAVEL INLET PROTECTION	N/A	
CHECK DAM	N/A	
CLEAN OUT		
CURB & GUTTER		
CURB & GUTTER (SPILL OFF)	N/A	
CURB INLET		
DROP INLET		
DUMPSTER UNIT		
ELECTRICAL TRANSFORMER		
FIRE HYDRANT ASSEMBLY		
FLARED END SECTION		
GAS METER		
GAS VALVE		
GRADE BUBBLE (TOP-ELEVATION)	+100.00	100.00
GRADE BUBBLE (FINISH-GRADE)	+100.00	100.00
GUY WIRE		
HARDWARE CLOTH & GRAVEL	N/A	
HEAD WALL		
JUNCTION BOX		
LIFT STATION		
MAN HOLE		
NOTE BUBBLE (DEMOLITION)	N/A	D

ABBREVIATIONS

Abbreviation:	Description:	Abbreviation:	Description:
A/C	AIR CONDITIONING	L	LENGTH, LEFT
ADJ	ADJACENT	LF	LINEAR FOOT
AFF	ABOVE FINISH FLOOR	LFT	LEFT
AL	AREA LIGHT		
APX	APPROXIMATE	MAX	MAXIMUM
ASBY	ASSEMBLY	MIN	MINIMUM
ASPH	ASPHALT	MISC	MISCELLANEOUS
AUTO	AUTOMATIC	MON	MONUMENT
B.O.	BLOW-OFF	NIC	NOT IN CONTRACT
B.V.	BALL VALVE	NTS	NOT TO SCALE
B/W	BETWEEN		
BFF	BELOW FINISH FLOOR	O.C.	ON CENTER
BLDG	BUILDING	O/H	OVER HEAD
BOC	BACK OF CURB		
BOW	BOTTOM OF WALL	PC	POINT OF CURVATURE
BX	BOX	PI	POINT OF INTERSECTION
		PIV	POST INDICATION VALVE
CF	CUBIC FOOT	PP	POWER POLE
CI	CURB INLET	PT	POINT OF TANGENCY
CL	CENTER LINE	PVC	POLYVINYL CHLORIDE
CMS	CONCRETE MONUMENT SET	PVMT	PAVEMENT
CMU	CONCRETE MASONARY UNIT		
CONC	CONCRETE	R	RADIUS, RIGHT
CONSTR	CONSTRUCTION	R.J.	RESTRAINED JOINT
CONTR	CONTRACTOR	R/W	RIGHT OF WAY
CTI	CAST IRON	RCP	REINFORCED CONCRETE PIPE
CY	CUBIC YARD	RDCO	ROOF DRAIN CLEAN OUT
		RED	REDUCED
D	DEPTH	REM	REMOVE
DEMO	*DEMOLISH (DEMOLITION)*	*RNF*	*REINFORCE*
DI	DUCTILE IRON	RQD	REQUIRED
DIA	DIAMETER	RQMT	REQUIREMENT
DIM	DIMENSION	RT	RIGHT
DWG	DRAWING	RWM	RIGHT OF WAY MARKER
ECM	EXISTING CONCRETE MONUMENT	SCH	SCHEDULE
EIP	EXISTING IRON PIPE	SD	STORM DRAIN
EIS	EXISTING IRON STAKE	SDCO	STORM DRAIN CLEAN OUT
ELEC	ELECTRIC (ELECTRICALLY)	SDMH	STORM DRAIN MANHOLE
ELEV	ELEVATION	SED	SEDIMENT
ELMH	ELECTRICAL MANHOLE	SF	SQUARE FOOT
ENCL	ENCLOSURE	SLV	SLEEVE
EOC	EDGE OF CONCRETE	SPEC	SPECIFICATION
EOP	EDGE OF PAVEMENT	SQ	SQUARE
EQPT	EQUIPMENT	SS	SANITARY SEWER
ESMT	EASEMENT	SSCO	SANITARY SEWER CLEAN OUT
EX	EXISTING	SSMH	SANITARY SEWER MANHOLE
EXCV	EXCAVATE (EXCAVATION)	STA	STATION
EXT	EXTERIOR	STD	STANDARD
		STOR	STORAGE
FES	FLARED END SECTION	STSL	STAINLESS STEEL
FFE	FINISH FLOOR ELEVATION	SY	SQUARE YARD
FH	FIRE HYDRANT		
FIN	FINISH	TBM	TEMPORARY BENCHMARK
FLR	FLOOR	TEL	TELEPHONE
FNC	FENCE	TEMP	TEMPORARY
FO	FIBER OPTIC	THK	THICK
FOBX	FIBER OPTIC BOX	TMH	TELEPHONE MANHOLE
FOC	FACE OF CURB	TOG	TOP OF GRATE
FT	FOOT	TOH	TOP OF HOOD
		TOP	TOP ELEVATION
G.V.	GATE VALVE	TOW	TOP OF WALL
GA	GAUGE	TPED	TELEPHONE PEDESTAL
GALV	GALVANIZE	TS&V	TAPPING SADDLE & VALVE
GND	GROUND	TTE	TIE TO EXISTING
GRAV	GRAVEL	TYP	TYPICAL
HDPE	HIGH DENSITY POLYETHYLENE	U/G	UNDER GROUND
HORZ	HORIZONTAL	UTIL	UTILITY
HT	HEIGHT		
HVAC	HEATING / VENTILATING / A/C	VAL	VALVE
HVD	HEAVY DUTY	VERT	VERTICAL
HW	HEAD WALL		
		W/	WITH
IN	INCH	W/O	WITHOUT
INT	INTERIOR	WL	WATER LINE
INV	INVERT	WM	WATER MAIN, WATER METER
ISS	IRON STAKE SET	WWF	WELDED WIRE FABRIC
JB	JUNCTION BOX	YI	YARD INLET
JNT	JOINT		

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BID SET

Fayetteville Regional Airport - Airline Terminal Improvements Part 2

400 Airport Road
Fayetteville, North Carolina 28306

General Notes, Legend & Abbreviations

DRAWN BY: IL8
REVIEWED BY: FDC
DATE: 6-20-19
PROJECT NO.: 1515

REVISIONS

SHEET NUMBER
C0.1

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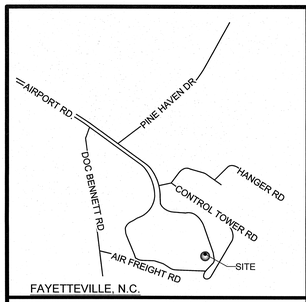

VICINITY MAP (N.T.S.)

DEMOLITON NOTES

1. REMOVE EXISTING CURB, GUTTER, SIDEWALK, CONCRETE, LANDSCAPING, LIGHT POLES, POSTS, ASPHALT AND ASSOCIATED ITEMS. SAWCUT ASPHALT AND CURBING NEATLY BETWEEN AREA TO BE DEMOLISHED AND AREA TO REMAIN. (SEE SHT. C4.0, #10).
2. RELOCATE EX. METER, VAULT AND VALVES. COORDINATE WITH OWNER.
3. REMOVE EX. CURB, GUTTER AND SIDEWALK.
4. DEMOLISH AND CAP EX. IRRIGATION LINES.
5. REMOVE APPROX. 10 LF OF STORM PIPING AND CURB INLETS.
6. REMOVE EX. CURB INLET. RECONSTRUCT TO JUNCTION BOX WITH MANHOLE COVER.
7. REMOVE EX. CURB INLET. RECONSTRUCT TO DROP INLET
8. REMOVE EX. DROP INLET. RECONSTRUCT TO JUNCTION BOX WITH MH COVER.
9. REMOVE EX. CURB INLET. RECONSTRUCT TO ACCOMMODATE NEW STORM PIPE AND INLET.
10. RELOCATE EXISTING ENTRY GATE AND APPURTENANCES.
11. REMOVE EX. BOLLARD.
12. REPLACE ANY NON-TRAFFIC RATED EX. ELEC. BOX COVERS WITH TRAFFIC RATED COVERS IN PROPOSED TRAFFIC AREAS. MATCH TOPS TO FINISH GRADE.
13. SAWCUT AND REMOVE EXISTING ASPHALT.
14. DEMOLISH APPROX. 88 LF OF EX. SAN. SEWER IN ACCORDANCE WITH PWC STANDARDS. CAP OR PLUG REMAINING OPENING(S).
15. REMOVE EX. DI FOR PLACEMENT OF NEW JB WITH MH TOP
16. REMOVE ALL LIGHT FIXTURES, BASES AND ASSOCIATED ITEMS AND PROVIDE DISCONNECT FROM ELECTRICAL SERVICE.
17. REMOVE EXISTING RENTAL CAR SIGNAGE AND REINSTALLING IN THE TEMPORARY LOT PER LOCATIONS PROVIDED BY OWNER. INSTALL NEW POST.
18. REMOVE MISCELLANEOUS SIGNAGE AND STORE FOR REINSTALLING PER THE LOCATION PROVIDED BY OWNER. INSTALL NEW POST ON ALL NON SPECIALTY SIGNAGE.

ADDITIONAL NOTES

1. **ALL GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND OTHER INFORMATION INDICATED ON COVER SHEET SHALL APPLY TO THIS PLAN**
2. ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE BENCHMARK AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR WITH THE SURVEYOR OF RECORD PRIOR TO BEGINNING CONSTRUCTION. BENCHMARKS SHOWN ON TABLE BELOW WERE OBTAINED FROM FROM ACCUTECH SURVEYING AND MAPPING LLP, PDF DATED 1-20-16, CONCORD, NC, PH: (704) 784-3286. EXISTING INFORMATION SHOWN ON THIS PLAN WAS PROVIDED BY GORDON JOHNSON ARCHITECTURE, FAYETTEVILLE, NC, PH: (910) 223-2166. THESE PLANS INDICATE THE MAJOR DEMOLITION COMPONENTS TO BE REMOVED AND/OR, RELOCATED. HOWEVER, THE CONTRACTOR SHALL DEMOLISH AND/OR RELOCATE ALL MISCELLANEOUS COMPONENTS NOT SPECIFICALLY INDICATED ON THESE PLANS TO PROVIDE A CLEAN SITE FOR THE INSTALLATION OF THE NEW IMPROVEMENTS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING TREE PROTECTION FENCING AROUND ALL "AT-RISK" TREES WITHIN THE VICINITY OF THE CONSTRUCTION ACTIVITY WHETHER SPECIFICALLY INDICATED ON THE PLANS OR NOT. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION OR OTHER DEVELOPMENT ACTIVITIES, AND SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE DURATION OF THE PROJECT UNTIL FINAL SITE INSPECTION. REFER TO CONSTRUCTION PLAN DETAIL SHEETS FOR TREE PROTECTION DETAIL(S).
4. CONTRACTOR SHALL USE EXTREME CARE IN THE VICINITY OF THE EXISTING TREES THAT ARE TO REMAIN WITHIN THE PARKING IMPROVEMENTS. CONTRACTOR SHALL UTILIZE CONSTRUCTION AND PROTECTION PRACTICES THAT WILL REDUCE THE POSSIBILITY OF DAMAGE TO THE ROOT SYSTEM, TRUNK, BRANCHES, AND OTHER SENSITIVE AREAS.

PointNo.	Northing(Y)	Easting(X)	Elev(Z)	Description
1	451897.911	2033497.717	178.98'	MAG NAIL END OF STRIPE
2	451892.033	2033932.806	177.24'	MAG NAIL END OR STRIPE
3	451731.623	2033594.397	178.93'	MAG NAIL IN SW
5	451696.470	2034044.426	178.72'	MAG NAIN IN SW
7	451701.975	2034125.656	167.38'	1/2" REBAR
8	451699.338	2033868.132	178.12'	MAG NL IN SW
9	451701.805	2033769.503	178.12'	MAG NL IN SW
10	452486.863	2033922.362	171.58	MAG NL IN CURB
11	452516.693	2033581.375	175.16'	MAG NL TIP OF STRIPE
12	452325.935	2033492.656	176.10'	NAIL AT EP/CURB
15	451391.575	2034127.414	185.30'	MAG NL IN RAMP
16	451465.652	2033786.931	183.76'	MAG NL IN RAMP
17	451529.386	2034068.969	183.03'	MAG NL IN ASPHALT APRON
34	451521.124	2033469.726	180.36'	MAG NL IN RAMP

NC GRID NAD 83

SAWCUT &REMOVE EX. DRIVE, INSTALL C&G, BACKFILL AND MULCH.
REMOVE GATE ASSEMBLY.
EXISTING SIDEWALK
EXISTING FENCE
SAWCUT &REMOVE EX. CURB AND SIDEWALK.
EX CI @FL 173.93
INV IN 15"=170.03
INV OUT 15"=169.91
EX CI @FL 174.34
INV IN 15"=170.64
INV OUT 15"=170.44
EX YI GRATE=175.97
INV IN 15"=173.87
INV OUT 15"=172.87
EX CI@FL176.31
INV IN 12"=174.21
INV OUT 15"=174.11
EX CI@FL176.83
INV OUT 12"=174.33
END OF ASPHALT CUT AND REPLACEMENT
EX. 30" PIPE
EX. 24" PIPE
(D18)
EX. 24" PIPE
EX. YI
GRATE=176.34
INV IN 12"=173.83
INV OUT 15"=173.76
EX. 15" PIPE
EX.YI
GRATE=176.18
INV IN=172.58 (24" SE)
INV IN=173.28 (12"S)
INV IN=172.88 (15"W)
INV OUT=172.48 (24"N)
EX (MH11)
RIM=177.69
INV IN=171.41 30" RCP (SE)
INV OUT=171.41 30" RCP (NW)
EX. SSMH
INV. UNAVAILABLE
RELOCATE EX. METAL ART STRUCTURE; COORD W/ ARCH.
EX. YI
GRATE=176.36
INV=174.10
EX. 12" PIPE
EX. CI
GRATE=176.43
INV=174.46
EX. DI (D11)
GRATE=177.21
INV IN=173.21 (24"S)
INV OUT=173.05 (24" NW)
EX. 12" OR 15" PIPE
EX GRATE YI 177.21
24" IN 173.21
24" OUT 173.05
EX. 24" PIPE
END ASPHALT CUT AND REPLACEMENT
EX. CI
GRATE=176.49
INV=173.99
RELOCATE EX. WATER VAULT
REMOVE APPROX. 10 FT EX. STORM PIPE FOR NEW CI
EX. 15" PIPE
(D19)
EX. ROOF DRAIN
EX. 4" PVC
EX. 8" VCP
EX. 12" DIP
(D7)
EX. GRATE=177.50
INV IN=173.80(15"E)
INV IN=173.75 (18"S)
INV OUT=173.50 (24"N)
REMOVE APPROX. 10 FT EX. STORM PIPE FOR NEW CI
(D10)
EX. GRATE=177.71
INV IN=175.01(15"S)
INV OUT=174.81(18"N)
EX. CI
GRATE=177.59
INV=174.84
EX. DI
GRATE=176.92
INV IN=174.42 (15"NE)
INV OUT=174.12 (18"NW)
EX. DROP CO
INV OUT=172.61
EX. 4" PVC SS @1.37%
EX. SSMH
TOP=178.19
INV IN=171.95 (DIP 8" E)
INV OUT=171.85 (DIP 8" W)
EX. 4" PVC SS@2.08%
EX. SSMH
TOP=177.74
INV IN=172.67 (4" PVC-SW)
INV IN=172.67 (4" PVC-SE)
INV IN=172.67 (4" PVC-N)
INV OUT=172.07 (8" DIP-W)
EX. 10" DIP
EX. 15" PIPE
(D9)
EX. 4" SSCO
TOP=177.55
INV=170.30
EX. 8" PVC SS @0.52%
EX. 8" PVC SS @0.52%
EX. DI
GRATE=177.28
INV IN=174.88 (6"E) removed
INV OUT=174.81 (15"W)
EX. SSMH
TOP=178.00
INV IN=172.55 (4")
INV OUT=169.48 (8")
INV IN=170.26 (PVC 8" E)
EX. MH20
2'X2' CONC. BOX
RIM=177.75
INV IN=17175.29 (12"E)
INV OUT=175.29 (12"W)
EX. CO
INV OUT=175.54
12"-W
EX. SSMH
TOP=178.11
INV IN=171.17 (DIP 8" E)
INV OUT=171.07 (PVC 8" W)
EX. SSMH
TOP=177.90
INV IN=171.62 (DIP 8" E)
INV IN=171.12 (PVC 4" N)
INV OUT=171.52 (DIP 8" W)
EX. SDMH
RIM=177.85
INV IN=174.19 12"-W
INV OUT=174.19 18"-E
EX. DI
RIM=177.35
INV IN=173.98 18" RCP-W
INV OUT=173.98 18" RCP-E

GRAPHIC SCALE 30 0 15 30 60 120 (IN FEET) 1 inch = 30 ft.

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NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1020 TERRY D. CRAWFORD JR.

BID SET

Fayetteville Regional Airport - Airline Terminal Improvements Part 2

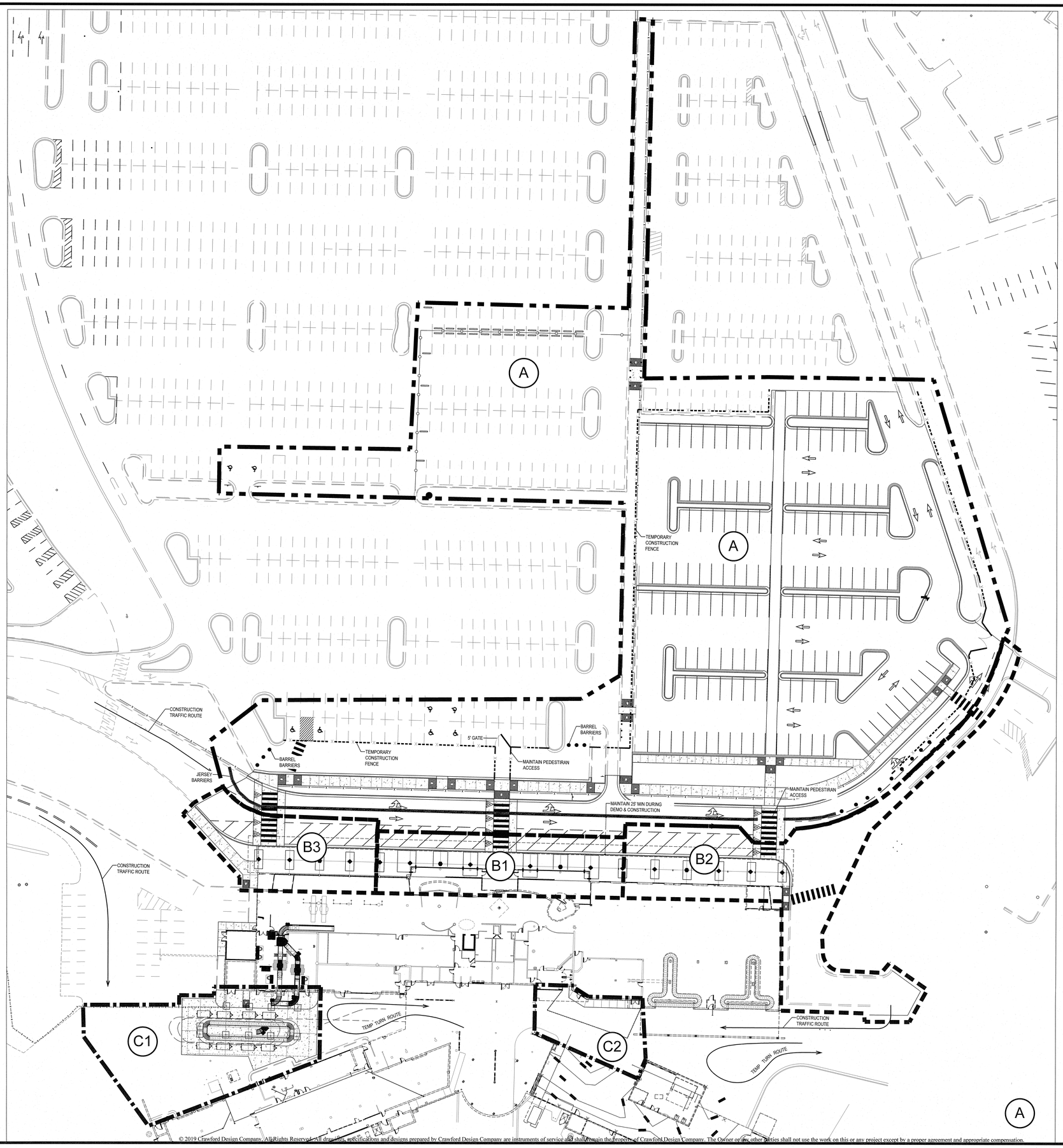
400 Airport Road
Fayetteville, North Carolina 28306

Demolition Plan

DRAWN BY: ILB
REVIEWED BY: FDC
DATE: 6-20-19
PROJECT NO.: 1515

REVISIONS

SHEET NUMBER
C1.0



AVIATION SAFETY PLAN NOTES

GENERAL

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4. ONLY PERSONNEL TRAINED AND BADGED WITH DRIVING PRIVILEGES WILL BE PERMITTED TO ACCESS THE ACTIVE TAXIWAY AND APRON AREAS OF THE AIRFIELD. SUCH PERSONNEL SHALL BE THOROUGHLY TRAINED AND KNOWLEDGEABLE WITH THE REQUIREMENTS FOR GROUND VEHICLE OPERATIONS ON AIRPORTS AND THE SPECIFIC CONFIGURATION OF THE FAYETTEVILLE REGIONAL AIRPORT. EACH ENTRY ONTO AND/OR CROSSING OF AN ACTIVE TAXIWAY OR RUNWAY WILL REQUIRE PROPER AIR TRAFFIC CONTROL CLEARANCE. COMMUNICATIONS WILL BE ON THE FAYETTEVILLE GROUND CONTROL FREQUENCY, 121.7 MHZ. CLEARANCE IS REQUIRED FOR ENTRY AND CROSSING ON FOOT AND BY VEHICLE.
5. LOOSE SOIL MATERIALS AND OTHER SMALL LOOSE ITEMS WHICH COULD BE LIFTED BY JET BLAST OR PROP WASH MUST BE KEPT AWAY ACTIVE APRON AREA, SO AS NOT TO PRESENT FOREIGN OBJECT DAMAGE (FOD) HAZARD. ANY SPILLAGE OR LOOSE MATERIALS ON THE AIRCRAFT PARKING APRON OUTSIDE THE TEMPORARY FENCE LINE SHALL BE THOROUGHLY CLEANED UP IMMEDIATELY.
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8. THE CONTRACTOR AND ALL MAJOR SUBCONTRACTORS SHALL PROVIDE 24-HOUR EMERGENCY CONTACTS WITH THE AUTHORITY TO RESPOND TO EMERGENCIES AT THE SITE.
9. WILDLIFE, INCLUDING BIRDS AND MAMMALS, PRESENT A SIGNIFICANT HAZARD TO AIRCRAFT OPERATIONS. THE CONTRACTOR SHALL MINIMIZE WILDLIFE ATTRACTANTS ON THE PROJECT SITE, SUCH AS STANDING WATER AND FOOD SERVICE REFUSE.
10. THE AIRPORT MANAGEMENT WILL ISSUE APPROPRIATE NOTICES TO AIRMEN (NOTAMS) TO ADVISE PILOTS OF CONSTRUCTION CONDITIONS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES IN THE PROJECT AREA, INCLUDING NORTH CAROLINA ONE CALL PROCEDURES. NOTE THAT POWER AND COMMUNICATION/CONTROL CABLES OWNED, LEASED AND/OR MAINTAINED BY THE AIRPORT, FAA, THE CITY PUBLIC WORKS COMMISSION (PWC), LOCAL TELEPHONE AND CABLE TV UTILITIES AND POSSIBLY OTHERS EXIST IN THE PROJECT AREA. THE CONTRACTOR IS ADVISED THAT CERTAIN LINES IN THE PROJECT VICINITY ARE CRITICAL TO AIRPORT SECURITY, AIRPORT OPERATIONS, EMERGENCY COMMUNICATIONS AND AIR TRAFFIC CONTROL. DAMAGE TO LINES MUST BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE OWNING AGENCY.

CONTACTS INCLUDE:
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CENTURY LINK - MR. TONY EVANS (910) 423-6903/MS. DORIS BUNNELLS (910) 678-0242

12. THE CONTRACTOR SHALL COORDINATE SITE ACCESS, WORKER PARKING AREAS AND STAGING AREAS WITH THE RESIDENT PROJECT REPRESENTATIVE.
13. THE CONTRACTOR SHALL POST LOCAL EMERGENCY NUMBERS (INCLUDING FIRE, RESCUE, EMT AND POLICE) AT THE JOB SITE.
14. AIRPORT MANAGEMENT WILL MAKE FREQUENT INSPECTIONS OF THE JOB SITE RELATIVE TO AIRPORT SAFETY AND SECURITY.

CONTRACTOR'S SAFETY PLAN RESPONSIBILITIES

1. SUBMIT PLANS, SKETCHES AND/OR NARRATIVE DATA OUTLINING HOW THE CONTRACTOR'S OPERATIONS WILL COMPLY WITH THE AIRPORT SAFETY PLAN.
2. MAINTAIN A COPY OF THIS AIRPORT SAFETY PLAN ON SITE AT ALL TIMES.
3. COMPLY WITH THE SAFETY PLAN REQUIREMENTS AND ASSURE THAT CONSTRUCTION PERSONNEL ARE FAMILIAR WITH SAFETY PROCEDURES, AIRPORT REGULATIONS AND SECURITY REQUIREMENTS.
4. PROVIDE A POINT OF CONTACT WHO WILL COORDINATE AN IMMEDIATE RESPONSE TO CORRECT ANY CONSTRUCTION RELATED ACTIVITY OR CONDITION THAT MAY ADVERSELY AFFECT THE OPERATIONAL SAFETY OR SECURITY OF THE AIRPORT.
5. PROVIDE A SAFETY OFFICER OR SUPERVISOR FAMILIAR WITH AIRPORT SAFETY TO MONITOR CONSTRUCTION ACTIVITIES.
6. RESTRICT MOVEMENT OF CONSTRUCTION VEHICLES TO APPROVED CONSTRUCTION AREAS BY MEANS OF FLAGGING, BARRICADING, TEMPORARY FENCING, USE OF ESCORTS, ETC.
7. ASSURE THAT NO CONTRACTOR, SUBCONTRACTOR OR SUPPLIER PERSONNEL ENTER THE AIR OPERATIONS AREA (ACTIVE APRON, RUNWAY AND TAXIWAY SYSTEM) FROM THE CONSTRUCTION AREA UNLESS EXPRESSLY AUTHORIZED.
8. PREPARE, SUBMIT AND UPDATE AS NEEDED A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) WHICH SHALL REFERENCE PLAN SHEETS C1.01 TO C1.06 AND THE CONSTRUCTION SAFETY AND PHASING (CSPP) INCLUDED IN THE PROJECT MANUAL.

ACCESS REQUIREMENTS

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO FAA GATES, THE TERMINAL BUILDING AND THE ARFF AT ALL TIMES.
2. THE CONTRACTOR SHALL NOT BLOCK THE LOOP ROADWAYS WITH PARKED VEHICLES, EQUIPMENT OR MATERIALS. MATERIALS AND EQUIPMENT SHALL BE STORED IN THE STAGING AREAS AS SHOWN ON THE PLANS.
3. REFER TO THE PROJECT SPECIAL PROVISIONS FOR TRAFFIC CONTROL REQUIREMENTS.

LEGEND

- PROJECT TRAFFIC CONTROL SIGN & NUMBER (SEE TABLE)
- TEMPORARY BARREL BARRICADE
- TEMPORARY JERSEY BARRICADE
- EXISTING FENCE
- CONSTRUCTION FENCE

NOTAMS

THE AIRPORT WILL ISSUE THE NECESSARY NOTAMS TO REFLECT HAZARDOUS CONDITIONS. IT IS IMPORTANT THAT NOTAMS BE KEPT CURRENT AND REFLECT THE ACTUAL CONDITIONS WITH RESPECT TO CONSTRUCTION SITUATIONS. ACTIVE NOTAMS SHALL BE REVIEWED PERIODICALLY AND REVISED TO REFLECT THE CURRENT CONDITIONS.

SEE PLAN SHEET C1.03 FOR WORK ZONES AND AIRPORT SECURITY NOTES

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NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1020 FRANK D. CRAWFORD JR.

BID SET

PHASING PLAN OVERVIEW TERMINAL PROJECT AREA
PHASE PLAN "A"

Fayetteville Regional Airport - Airline Terminal Improvements Part 2

400 Airport Road
Fayetteville, North Carolina 28306

DRAWN BY:
REVIEWED BY: FDC
DATE: 6-20-19
PROJECT NO.: 1515

REVISIONS

SHEET NUMBER
C1.01

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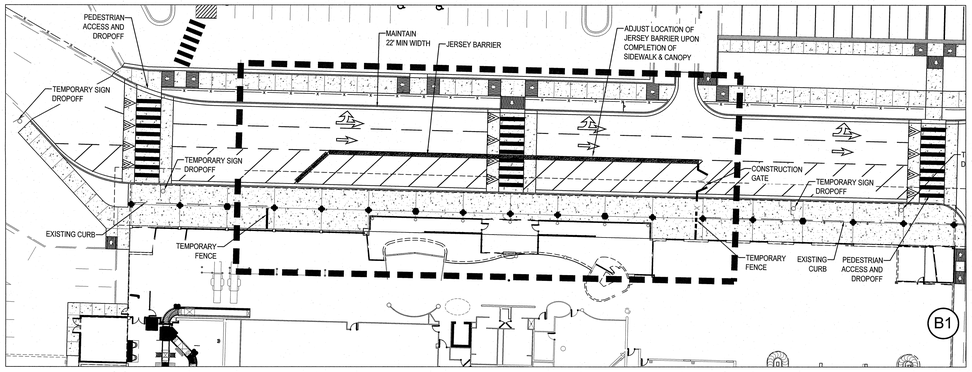

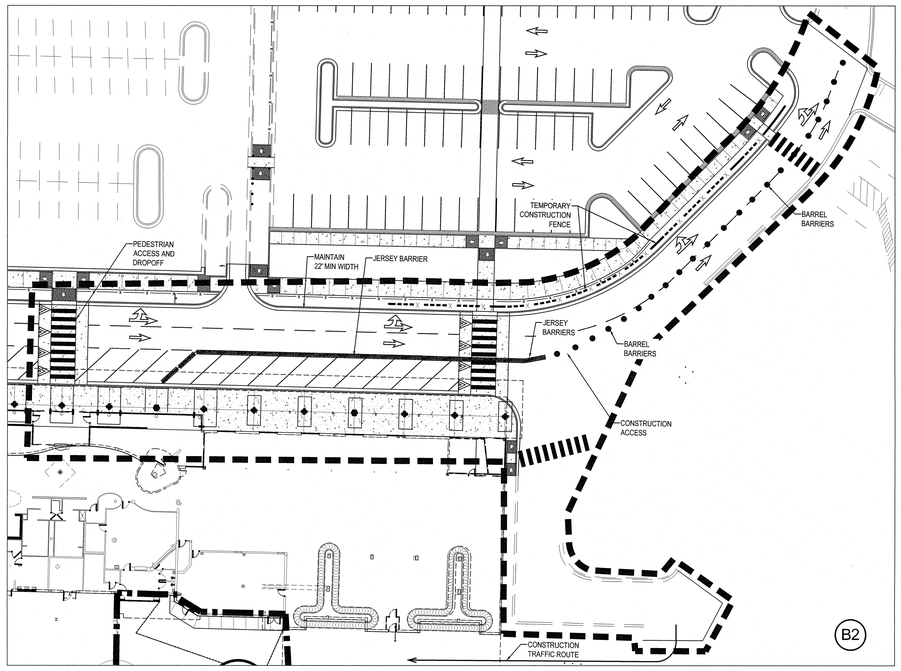

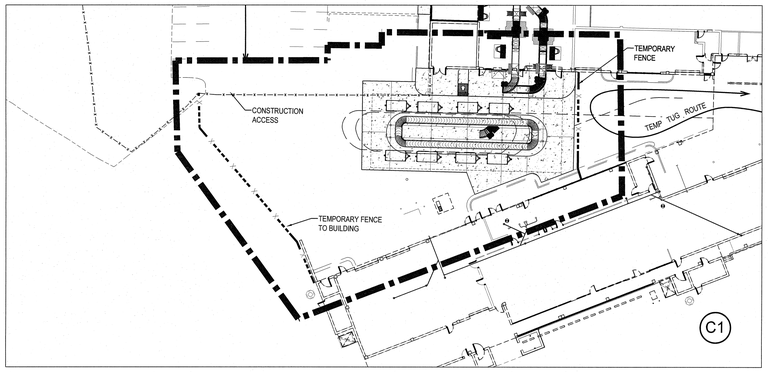

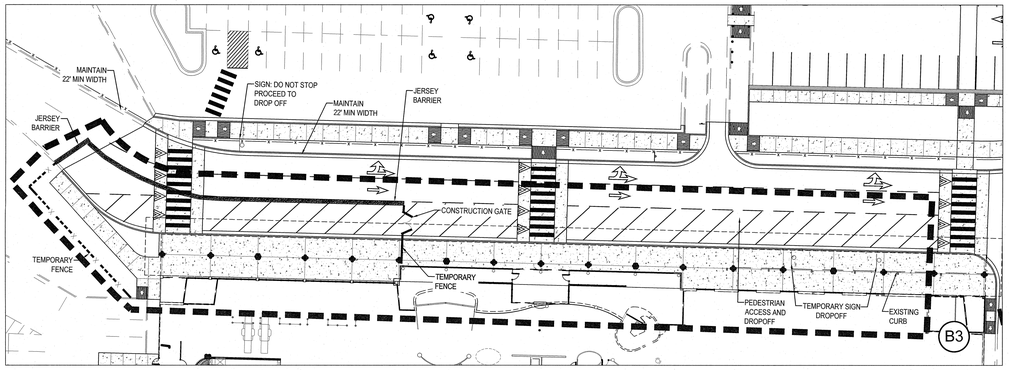

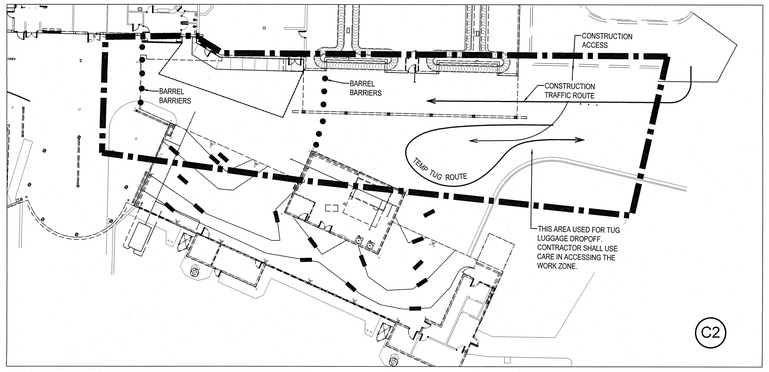

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LEGEND

- PROJECT TRAFFIC CONTROL SIGN & NUMBER (SEE TABLE)
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- EXISTING FENCE
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SEE PLAN SHEET C1.02 FOR WORK ZONES AND AIRPORT SECURITY NOTES

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www.crawfordlaw.com

KEVIN D. CRAWFORD 1020 REGISTERED LANDSCAPE ARCHITECT

BID SET

Fayetteville Regional Airport - Airline Terminal Improvements Part 2

400 Airport Road
Fayetteville, North Carolina 28306

PHASING PLAN OVERVIEW TERMINAL PROJECT AREA
PHASE AREAS "B1", "B2", "B3", "C1" & "C2"

DRAWN BY:
REVIEWED BY: FDC
DATE: 6-20-19
PROJECT NO.: 1515

REVISIONS

SHEET NUMBER
C1.02

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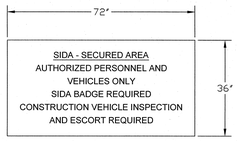
CONSTRUCTION ACCESS SIGNS

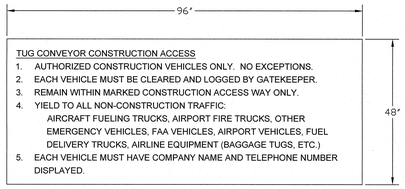
THE CONTRACTOR SHALL FURNISH ADDITIONAL SIGNS AS NEEDED TO DIRECT DELIVERY VEHICLES AND OTHER CONSTRUCTION RELATED TRAFFIC TO CONTRACTOR FIELD OFFICES, STAGING AREAS, MARSHALLING AREAS, ACCESS GATES, ETC., IN ORDER TO FACILITATE MANAGEMENT OF ORDERLY CONSTRUCTION TRAFFIC FLOW. THE CONTRACTOR SHALL USE SIMPLE ALPHA-NUMERIC LOCATION IDENTIFIERS ON MAPS, SIGNS, DELIVERY INSTRUCTIONS, ETC. TO FACILITATE COMMUNICATIONS IN THIS REGARD.



SIDA - SECURED AREA
SIGN DETAIL
NOT TO SCALE

NOTES:

1. TWO SIGNS REQUIRED.
2. RED SIGNS WITH 4-INCH(±) TALL WHITE LETTERING.
3. SIGN LOCATIONS SHOWN ON SHEET C2.0.



TUG CONVEYOR CONSTRUCTION ACCESS
SIGN DETAIL
NOT TO SCALE

NOTES:

1. TWO SIGN REQUIRED.
2. RED SIGN WITH 3-INCH(±) TALL WHITE LETTERING.
3. SIGN LOCATION SHOWN ON SHEET C2.0.
4. SIGN TO BE MOUNTED IN GRASS AREA.

AIRPORT SECURITY

1. AREA DEFINITIONS AND ACCESS RESTRICTIONS

A. "SECURED AREA" - THE SECURED AREA IS THE AREA OF THE AIRPORT WHERE MEASURES ARE IN PLACE TO LIMIT ACCESS TO AUTHORIZED PERSONS. THE SECURED AREA BOUNDARY IS DELINEATED BY THE AIRPORT'S PERIMETER FENCE AND THE WALLS OF VARIOUS AIRPORT BUILDINGS, INCLUDING THE AIRLINE TERMINAL BUILDING. CONTRACTOR ACCESS INSIDE THE SECURED AREA REQUIRES A SIDA/SECURED AREA BADGE ISSUED BY THE AIRPORT OR ESCORT AT ALL TIMES BY AN INDIVIDUAL WITH AN AIRPORT ISSUED SIDA/SECURED AREA BADGE WITH ESCORT PRIVILEGES.

B. "AIR OPERATIONS AREA, AOA" - THE AIR OPERATIONS AREA (AOA) IS ANY AREA OF THE AIRPORT USED OR INTENDED TO BE USED FOR THE LANDING, TAKEOFF OR SURFACE MOVEMENT OF AIRCRAFT. THE AOA INCLUDES SUCH PAVED AND UNPAVED AREAS THAT ARE USED OR INTENDED TO BE USED FOR THE UNOBSTRUCTED MOVEMENT OF AIRCRAFT IN ADDITION TO THE PAVED RUNWAY, TAXIWAYS AND APRONS. FOR AIRPORT SECURITY PURPOSES, THIS TERM IS SOMETIMES USED TO MEAN THE SECURED AREA.

C. "SECURITY IDENTIFICATION DISPLAY AREA, SIDA" - THE SECURITY IDENTIFICATION DISPLAY AREA (SIDA) IS THE AREA OF THE AIRPORT WHERE SECURITY MEASURES ASSOCIATED WITH AIRLINE OPERATIONS ARE IN PLACE. THE SIDA INCLUDES THE ENTIRE AIR CARRIER APRON AND PORTIONS OF THE AIRLINE TERMINAL BUILDING. ACCESS INSIDE THE SIDA REQUIRES A SIDA/SECURED AREA BADGE ISSUED BY THE AIRPORT OR ESCORT AT ALL TIMES BY AN INDIVIDUAL WITH AN AIRPORT ISSUED SIDA/SECURED AREA BADGE WITH ESCORT PRIVILEGES. VEHICLES AND EQUIPMENT ENTERING THE SIDA MUST BE INSPECTED BY AUTHORIZED PERSONNEL PRIOR TO SUCH ENTRY.

D. "STERILE AREA" - THE STERILE AREA IS THAT PORTION OF THE TERMINAL BUILDING BEYOND THE TSA PASSENGER SCREENING STATION. ALL PASSENGERS AND CARRY-ON BAGS IN THE AREA HAVE PASSED THROUGH THE SCREENING STATION LOCALLY (DEPARTING PASSENGERS) OR ELSEWHERE (ARRIVING PASSENGERS). ACCESS INSIDE THE STERILE AREA REQUIRES A SIDA/SECURED AREA BADGE ISSUED BY THE AIRPORT OR ESCORT AT ALL TIMES BY AN INDIVIDUAL WITH AN AIRPORT ISSUED SIDA/SECURED AREA BADGE WITH ESCORT PRIVILEGES.

E. "NON-SIDA WORK AREA" - FOR THIS CONSTRUCTION PROJECT, NON-SIDA WORK AREAS WILL BE ESTABLISHED WITHIN THE SECURED AREA FOR THE PURPOSE OF SEGREGATING MAJOR CONSTRUCTION WORK AREAS FROM ACTIVE SIDA AIRLINE OPERATIONS AREAS. ACCESS INSIDE THESE NON-SIDA WORK AREAS REQUIRES A SIDA/SECURED AREA BADGE ISSUED BY THE AIRPORT OR ESCORT AT ALL TIMES BY AN INDIVIDUAL WITH AN AIRPORT ISSUED SIDA/SECURED AREA BADGE WITH ESCORT PRIVILEGES. VEHICLES AND EQUIPMENT ENTERING THE NON-SIDA WORK AREAS VIA THE DESIGNATED ACCESS ROUTE FROM AIRPORT GATE 7 WILL NOT REQUIRE INSPECTION PRIOR TO SUCH ENTRY BUT SHALL BE STRICTLY CONTROLLED BY SPECIALLY TRAINED AND SIDA BADGED CONTRACTOR PERSONNEL. THE NON-SIDA WORK AREAS WILL BE DELINEATED BY TEMPORARY FENCE LINES, GATES, AND PERMANENT AND TEMPORARY WALLS ALL PROVIDED AND MAINTAINED BY THE CONTRACTOR.

F. "FAA SECURED AREA" - THE FAA SECURED AREA IS AN AREA DELINEATED BY FENCING INTO WHICH ACCESS IS CONTROLLED BY FAA AND NOT BY THE AIRPORT. THE AREA INCLUDES THE AIRPORT TRAFFIC CONTROL TOWER AND RELATED SUPPORT FACILITIES. ANY ACCESS INTO THE FAA SECURE AREA MUST BE COORDINATED WITH FAA.

G. "UN-SECURED AREA" - THE UN-SECURED AREA INCLUDES THE AREAS OF THE TERMINAL BUILDING AND AIRPORT GROUNDS FOR WHICH AIRPORT SECURITY ACCESS CONTROL MEASURES ARE NOT IN PLACE ("OUTSIDE THE FENCE"). THIS INCLUDES THE ACCESS ROAD, PARKING LOTS AND PUBLIC AREAS OF THE TERMINAL BUILDING. IT ALSO INCLUDES AREAS OF LIMITED ACCESS SUCH AS AIRPORT OFFICES, CONFERENCE ROOMS, TENANT OFFICES AND LOCKED STORAGE AND MAINTENANCE ROOMS. WHILE AIRPORT ACCESS CONTROL MEASURES ARE NOT IN PLACE FOR THE UN-SECURED AREA, SUCH SECURITY MEASURES AS VIDEO SURVEILLANCE, POLICE PATROLS, LOCK MANAGEMENT AND VIGILANCE BY AIRPORT, TSA AND TENANT PERSONNEL ARE IN PLACE.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A BADGE AND SECURITY MANAGEMENT PROGRAM WITH A PRIMARY AND SECONDARY (BACK-UP) BADGE AND SECURITY MANAGER. THESE INDIVIDUALS SHALL BE DESIGNATED BY THE CONTRACTOR AS HAVING SIGNATORY AUTHORITY FOR AIRPORT SECURITY BADGING MATTERS. THIS DESIGNATION SHALL BE IN THE FORM OF A NOTARIZED LETTER TO THE AIRPORT DIRECTOR, ON CONTRACTOR LETTERHEAD, SIGNED BY AN OFFICER OF THE COMPANY. THE SECURITY MANAGERS MUST OBTAIN AND MAINTAIN AIRPORT SIDA/SECURITY BADGES WITH ESCORT PRIVILEGES AND SHALL UNDERGO INITIAL AND ANNUAL SIGNATORY AUTHORITY TRAINING BY THE AIRPORT. THE PROGRAM IS INTENDED TO MANAGE, COORDINATE (WITH AIRPORT MANAGEMENT) AND DOCUMENT: (1) THE SECURING OF AIRPORT SIDA BADGES FOR CONTRACTOR AND SUBCONTRACTOR PERSONNEL (THE APPLICATIONS ARE TO BE SIGNED BY THE SIGNATORY AUTHORITY AFTER THE APPLICANT HAS SIGNED THE FORM), (2) AIRPORT SECURITY AND SAFETY RELATED TRAINING, (3) AN INVENTORY OF ACTIVE BADGES, (4) IMMEDIATELY TURNING IN BADGES OF TERMINATED STAFF AND THE STAFF OF TERMINATED SUBCONTRACTORS, (5) REGULAR REVIEW AND UPDATES OF SECURITY MATTERS, INCLUDING BUT NOT LIMITED TO ITEMS (1) THROUGH (4), PROJECT MEETING SECURITY RELATED AGENDA ITEMS, GATE KEEPING AND DOOR MANAGEMENT EFFORTS, TEMPORARY SIDA AND STERILE AREA LIMITS (INCLUDING TEMPORARY WALLS, FENCES, GATES AND DOORS), DISCIPLINARY AND CORRECTIVE ACTIONS, AND ADVANCE PLANNING FOR CHANGES IN CONSTRUCTION WORK AREAS AND STERILE AREA/SIDA LIMITS.

3. THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECTURAL TEAM AND AIRPORT MANAGEMENT WITH REGARD TO THE ADVANCE SCHEDULING AND TSA REVIEW AND APPROVAL OF UPCOMING CHANGES IN SECURED AREA, SIDA AND STERILE AREA LIMITS, BOTH INSIDE AND OUTSIDE OF THE TERMINAL BUILDING. ALLOW 45 CALENDAR DAYS FOR TSA REVIEW AND APPROVAL OF SUCH CHANGES.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AT ALL TIMES AN ADEQUATE NUMBER OF PERSONNEL WITH AIRPORT SIDA BADGES WITH ESCORT PRIVILEGES AND COMPLETED TRAINING SUCH THAT ALL WORK CREWS ARE ESCORTED AT ALL TIMES BY BADGED PERSONNEL. ALL UNBADGED PERSONNEL SHALL BE ESCORTED BY BADGED PERSONNEL AND MUST BE WITHIN VISUAL AND VOICE CONTACT RANGE OF THE BADGED ESCORT AT ALL TIMES. ALL BADGED PERSONNEL MUST DISPLAY (WEAR) THEIR BADGE ON THEIR PERSON (BETWEEN THE SHOULDER AND WAIST) AT ALL TIMES WHEN ON SITE, REGARDLESS OF WHETHER THEY ARE PRESENT INSIDE THE SECURED AREA AND REGARDLESS OF WHETHER OR NOT THEY ARE ACTIVELY ESCORTING UNBADGED PERSONNEL. FOR THIS PROJECT, THE MAXIMUM NUMBER OF UNBADGED PERSONNEL COVERED BY A SINGLE BADGED ESCORT SHALL BE SIX (6) WITHIN THE ACTIVE SIDA AND STERILE AREAS AND TWELVE (12) WITHIN NON-SIDA WORK AREAS.

5. TO THE MAXIMUM EXTENT PRACTICABLE, THE CONTRACTOR SHALL ESTABLISH PHYSICAL SEPARATION AND/OR TEMPORARY SIDA AND STERILE AREA LIMITS, AS APPROPRIATE, TO ISOLATE CONSTRUCTION ACTIVITIES FROM ACTIVE AIRPORT OPERATIONS. IT IS UNDERSTOOD, HOWEVER, THAT A SIGNIFICANT AMOUNT OF CONSTRUCTION ACTIVITY MUST TAKE PLACE WITHIN ACTIVE SIDA AND STERILE AREAS. THE CONTRACTOR MUST STRICTLY ADHERE TO PERSONNEL ESCORT AND VEHICLE/EQUIPMENT INSPECTION REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING AND SECURING MATERIALS, TOOLS AND EQUIPMENT IN SIDA AND STERILE AREAS AND SHALL NOT LEAVE TOOLS, EQUIPMENT AND MATERIALS UNATTENDED UNLESS LOCKED AND/OR SECURED IN A MANNER ACCEPTABLE TO AIRPORT MANAGEMENT.

6. A CONSTRUCTION ACCESS ROUTE FROM AIRPORT GATE 7 AND RUNNING ACROSS THE NORTH GENERAL AVIATION APRON AND A DE-ACTIVATED PORTION OF THE AIR CARRIER APRON IS DEPICTED ON THE PLANS. THE CONTRACTOR SHALL ESTABLISH THE CONSTRUCTION ACCESS ROUTE AND SHALL FURNISH, INSTALL, MAINTAIN AND ULTIMATELY REMOVE PAVEMENT MARKINGS, LOW PROFILE AVIATION BARRICADES, TEMPORARY GATES, SIGNS, ETC. AS SHOWN. THE ROUTE LAYOUT SEGREGATES CONSTRUCTION TRAFFIC FROM AIRCRAFT TRAFFIC AND OPERATIONS. THE CONSTRUCTION ACCESS ROUTE IS SUBJECT TO CROSSING VEHICULAR TRAFFIC, INCLUDING BUT NOT LIMITED TO ARFF (FIRE) TRUCKS, AIRCRAFT FUELING VEHICLES, FUEL DELIVERY VEHICLES, AIRLINE AND AIRPORT GROUND VEHICLES, BAGGAGE TUGS, AIRPORT VEHICLES AND FAA VEHICLES. CONSTRUCTION VEHICLES SHALL YIELD TO ALL OTHER TRAFFIC.

7. THE CONTRACTOR SHALL PERFORM ALL TEMPORARY WORK ASSOCIATED WITH TEMPORARY AND FINAL CHANGES IN SECURE AREA, SIDA AND STERILE AREA LIMITS AND ACCESS POINTS, INCLUDING ALL WORK NECESSARY TO ERECT TEMPORARY WALLS, FENCES, GATES AND DOORS, CHANGE LOCKS AND SIGNS, RELOCATE SECURITY DEVICES (ELECTRONIC ACCESS CARD READERS, KEYPADS, SURVEILLANCE CAMERAS, LIGHTING, ETC.) TO THE SATISFACTION OF AIRPORT MANAGEMENT.

8. GATE KEEPERS SHALL ALLOW PASSAGE TO AUTHORIZED CONSTRUCTION VEHICLES ONLY. GATE KEEPERS SHALL MAINTAIN A DATE AND TIME LOG OF ALL VEHICLES ENTERING AND DEPARTING, INCLUDING RECORDS OF THE VEHICLE'S CONTROLLING ENTITY (CONTRACTOR, SUBCONTRACTOR, SUPPLIER AND/OR TRANSPORT FIRM) AND VEHICLE NUMBER. CODES, ABBREVIATIONS AND FORMS SHALL BE PREPARED AHEAD OF ACCESS OPERATIONS AND UPDATED AS NEEDED TO FACILITATE THE LOG KEEPING EFFORT. THE GATE KEEPER SHALL BE INSTRUCTED TO CHALLENGE AND TURN AWAY ANY UNAUTHORIZED VEHICLES OR PERSONNEL AND SHALL HAVE IMMEDIATE ACCESS TO A TELEPHONE AND EMERGENCY CONTACT NUMBERS (AIRPORT MANAGEMENT, ARFF STATION AND POLICE) TO IMMEDIATELY REPORT SECURITY INCIDENTS. THE CONTRACTOR SHALL MAINTAIN GATE KEEPING LOGS FOR THE DURATION OF THE WORK AND SHALL MAKE THE RECORDS AVAILABLE FOR INSPECTION BY AIRPORT, TSA AND PUBLIC SAFETY PERSONNEL.

9. THE CONTRACTOR SHALL INSTRUCT ALL PERSONNEL REGARDING AIRPORT SECURITY MATTERS, INCLUDING THE NEED FOR VIGILANCE AND IMMEDIATE REPORTING OF UNAUTHORIZED OR SUSPICIOUS PERSONNEL, VEHICLES, EQUIPMENT, MATERIALS OR ACTIVITIES.

10. THE CONTRACTOR SHALL INSPECT TEMPORARY SECURITY LINES (FENCES, GATES, DOORS, WALLS, LOCKING SYSTEMS) ON A DAILY BASIS (AT THE START AND COMPLETION OF EACH WORK SHIFT), SHALL IMMEDIATELY REPORT ANY APPARENT SECURITY BREACHES, SHALL ASSIGN A BADGED GATEKEEPER TO ANY BREACHED AREAS DISCOVERED, AND SHALL PROMPTLY REPAIR ANY BREACHED AREAS DISCOVERED TO THE SATISFACTION OF AIRPORT MANAGEMENT.

11. VEHICLES, EQUIPMENT AND MATERIALS SHALL NOT BE STORED WITHIN 10 FEET OF ANY EXISTING OR TEMPORARY FENCE LINE SERVING THE SECURED AREA, SIDA, STERILE AREA OR FAA SECURED AREA.

12. IN THAT CONTRACT WORK IS MULTI-YEAR, BADGED CONTRACTOR AND SUBCONTRACTOR PERSONNEL WITH SHALL BE REQUIRED TO UNDERGO ANNUAL RECURRENT TRAINING.

WORK ZONES

FOR CLARITY AND TO MAINTAIN AIRPORT OPERATIONS, THE PROJECT SITE HAS BEEN SET UP IN WORK ZONES. THE INFORMATION BELOW IS GENERAL IN NATURE AND RELATED TO THE CIVIL/LANDSCAPE ACTIVITIES. THE CONTRACOTOR SHALL MAKE THEIR OWN EVALUATIONS IN THE PHASING OF THE WORK TO MAINTAIN THE OPERATIONS, SECURITY AND SAFETY OF THE AIRPORT WHILE CONSTRUCTION ACTIVITIES ARE BE PERFORMED. REFERENCE CONTRACT DOCUMENTS TO INCLUDE PLANS, SHEETS AND TECHNICAL SPECIFICATIONS FOR DETAILED INFORMATION.

WORK ZONE A (PHASE 1)

WORK ZONE A IS ACCESSED FROM THE LOOP ROAD. WORK ZONE A INCLUDES THE CONSTRUCTION OF IMPROVEMENTS TO THE LOOP ROAD AND THE RENTAL VEHICLE PARKING. IT IS LOCATED ACROSS FROM THE TERMINAL IN A NON-SIDA AREA. IN ORDER TO RELOCATE THE RENTAL VEHICLES, THE CONTRACTOR SHALL CONSTRUCT THE ACCESS IN THE EXISTING WALKWAY AND INSTALL THE TEMPORARY FENCING AROUND THE TEMPORAY RENTAL LOT. THIS WILL ALLOW THE RENTAL VEHICLES TO BE RELOCATED. ONCE THE RENTAL VEHICLES ARE RELOCATED, THE DEMOLITION AND CONSTRUCTION OF THE IMPROVEMENTS TO THE LOOP ROAD SHALL BE COMPLETED PRIOR TO ANY CONSTRUCTION ACTIVITIES ON THE TERMINAL SIDE. IN GERNERAL, THIS WORK WOLD INCLUDE CONSTRUCTION OF THE TWO DRIVE LANES, SIDEWALK, CURB AND GUTTER AND OTHER ACTIVITIES. THIS WORK MUST BE COMPLETED BEFORE WORK ZONES A1, A2 AND A3. THE WORK RELATED TO THE RENTAL VEHICLE IMPROVMENTS CAN ALSO BEGIN AND CAN BE COMPLETED DURING THE CONSTRUCTION OF THE OTHER WORK ZONEAREAS.

WORK ZONE B1 (PHASE II)

WORK ZONE B IS ACCESSED FROM THE LOOP ROAD IN A NON-SIDA AREA. UPON COMPLETION OF THE LOOP DRIVE WORK IN WORK ZONE A, THE COMSTURCTION OF ITEMS IN WORK ZONE B1 CAN BEGIN. THIS INCLUDES A PORTION OFTHE SIDEWALK IN FRONT OF THE NEW TERMINAL EXPANSION AND PORTIONS OF THE DIRVE AND CURB AND GUTTER. A SINGLE VEHICULAR BYPASS LANE SHALL BE MAINTAINED ALONG WITH DROP OFF AREAS AT EACH END OF THE TERMINAL.

WORK ZONE B2 (PHASE III)

WORK ZONE B2 IS ACCESSED FROM THE LOOP ROAD IN A NON-SIDA AREA. UPON COMPLETION OF THE LOOP DRIVE WORK IN WORK ZONE B1, THE COMSTURCTION OF ITEMS IN WORK ZONE B2 CAN BEGIN. THIS INCLUDES A PORTION OFTHE SIDEWALK IN FRONT OF THE NEW TERMINAL EXPANSION AND PORTIONS OF THE DIRVE AND CURB AND GUTTER. A SINGLE VEHICULAR BYPASS LANE SHALL BE MAINTAINED ALONG WITH DROP OFF AREAS ALONG THE COMPLETED B1 AREA AND IN FRONT OF THE EXISTING BAGGAGE CLAIM. THE CONTRACTOR SHALL INSTALL ADEQUATE SIGNAGE TO DIRECT PATRONS USING THE AIRPORT TO THE BUILDING ENTRANCE.

WORK ZONE B3 (PHASE IV)

WORK ZONE B3 IS ACCESSED FROM THE LOOP ROAD IN A NON-SIDA AREA. UPON COMPLETION OF THE LOOP DRIVE WORK IN WORK ZONE B2, THE COMSTURCTION OF ITEMS IN WORK ZONE B3 CAN BEGIN. THIS INCLUDES A PORTION OFTHE SIDEWALK IN FRONT OF THE NEW TERMINAL EXPANSION AND PORTIONS OF THE DIRVE AND CURB AND GUTTER. THIS ZONE ALSO INCLUDED THE CONSTRUCTION OF THE BALANCE OF THE LOOP ROAD IMPROVEMENTS AND THE TAXI AREA ACCESS DRIVE. A SINGLE VEHICULAR BYPASS LANE SHALL BE MAINTAINED ALONG WITH DROP OFF AREAS ALONG THE COMPLETED B1 AND B2 AREAS. THE CONTRACTOR SHALL INSTALL ADEQUATE SIGNAGE TO DIRECT PATRONS USING THE AIRPORT TO THE BUILDING ENTRANCE.

WORK ZONE C1 (N0N-PHASED)

WORK ZONE C1 IS ACCESSED FROM THE SERVICE DRIVE THROUGH A SECURED GATE. THE ACTIVITIES IN THIS WORK ZONE CAN BEGIN AT ANY TIME DURING THE CONSTRUCTION PERIOD. WORK ZONE C1 IS TO BE ESTABLISHED AS A NON-SIDA WORK AREA FULLY ENCLOSED WITH A TEMPORARY FENCE. THE FENCE SHALL BE A BARRIER TO KEEP CONSTRUCTION ACTIVITIES SEPERATED FROM THE ACTIVE AIRPORT ACTIVITIES. THIS WORK INCLUDS THE CONSTRUCTION OF THE LUGGAGE TRANSFER SYSTEM.

ALL PERSONS ENTERING ZONE C1 MUST BE ESCORED BY A SIDA BADGED PERSONNEL AT ALL TIMES. (MAXIMUM OF 12 ESCORTED INDIVIDUALS PER BADGED INDIVIDUAL). VEHICLES ACCESSING THIS AREA ARE SUBJECT TO INSPECTION AT ANY TIME.

WORK ZONE C2 (N0N-PHASED)

WORK ZONE C1 IS ACCESSED FROM THE TAXI DRIVE THROUGH A SECURED GATE. THE ACTIVITIES IN THIS WORK ZONE CAN BEGIN AT ANY TIME DURING THE CONSTRUCTION PERIOD. WORK ZONE C2 IS AN ACTIVE SIDA AREA THIS WORK INCLUDES THE CONSTRUCTION OF A SIDEWALK TO THE REAR OF THE TERMINAL BUILDING NEAR THE EXISTING BAGAGE CLAIM AREA.

CONSTRUCTION TRAFFIC SHALL TAKE EVERY PERCAUTION TO MAINTAIN SAFETY AS THERE WILL BE AIRPORT ACTIVITES IN THE AREA.

ALL PERSONS ENTERING ZONE C1 MUST BE ESCORED BY A SIDA BADGED PERSONNEL AT ALL TIMES. (MAXIMUM OF 12 ESCORTED INDIVIDUALS PER BADGED INDIVIDUAL). VEHICLES ACCESSING THIS AREA ARE SUBJECT TO INSPECTION AT ANY TIME.

TEMPORARY FENCE NOTES:

1. THE TEMPORARY FENCE/BARRICADE LINE SHALL BE IN PLACE AND SECURE PRIOR TO INITIATION OF ANY OTHER CONSTRUCTION ACTIVITIES INSIDE THE NON-SIDA WORK AREA.
2. THE CONTRACTOR SHALL CHECK THE FENCE AND BARRICADES ON A DAILY BASIS. THEY SHALL REPAIR AND MAKE ADJUSTMENTS AS NEEDED THROUGHOUT CONSTRUCTION.
3. THE CONTRACTOR SHALL CONSIDER THE EFFECTS OF JET BLAST AND PROP WASH BLOWING INTO THE WORK ZONE IN PLANNING AND EXECUTING THE WORK, WITH SPECIAL ATTENTION TO LOOSE LIGHTWEIGHT MATERIALS, FINE GRAINED SOILS AND AGGREGATES AND TRASH. BLOWING MATERIALS REPRESENT A HAZARD TO BOTH CONSTRUCTION WORKERS AND AIRCRAFT OPERATIONS. THE CONTRACTOR SHALL DILIGENTLY CONTROL DUST, LOOSE DRY SOILS AND AGGREGATES, TRASH AND OTHER LIGHTWEIGHT MATERIALS SO AS TO MINIMIZE HAZARDS.
4. USE BARBED WIRE, FENCE FABRIC, AND/OR FENCE WIRE TO SECURE ALL GAPS BETWEEN ADJACENT FENCE/BARRICADE SECTIONS, EXISTING FENCING, ETC. THE COMPLETED INSTALLATION SHALL AFFORD A SIMILAR LEVEL OF SECURITY AGAINST UNAUTHORIZED ENTRY AS THE ADJACENT SECTIONS OF PERMANENT FENCING.

GENERAL NOTES:

1. SHEETS C1.01 - C1.06 ARE FOR PHASING PURPOSES ONLY. SEE GRADING, MARKING, AND UTILITY SHEETS FOR DETAILED INFORMATION.
2. SAFETY REQUIREMENTS, LIGHTED JERSEY BARRICADE AND LIGHTED LOW PROFILE BARRICADES SHOWN SHALL BE INSTALLED, MAINTAINED, REMOVED, OR RELOCATED AS REQUIRED FOR COMPLIANCE WITH SAFETY PLAN.
3. PORTIONS OF THE TERMINAL BUILDING AIRSIDE APRON SHALL BE CLOSED TO AIRPORT OPERATIONS DURING THE PROJECT. CONTRACTOR SHALL INSTALL TEMPORARY MEASURES AS SHOWN ON PHASING PLANS, AS REQUIRED. THE CONTRACTOR SHALL DISABLE OR COVER ANY CONFLICTING GUIDANCE SIGNS AS REQUIRED OR AS DIRECTED BY THE ENGINEER.
4. CONTRACTOR SHALL HAVE A POWER BROOM ON SITE AT ALL TIMES. THE CONTRACTOR SHALL MONITOR CONSTRUCTION CROSSING AREAS ON PUBLIC ROADWAYS AND CONSTRUCTION AREAS ADJACENT TO ACTIVE APRON AND TAXILANES AREAS FOR SPILLAGE AND SHALL CLEAN UP ALL SPILLAGE IMMEDIATELY.

TO PROVIDE CONSISTANCY WITH PHASE ONE IMPROVEMENTS THE NOTES AND PROVISIONS SHALL APPLY TO PHASE 2 WORK.

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Fayetteville Regional Airport - Airline Terminal Improvements Part 2

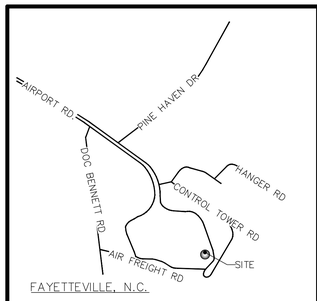
400 Airport Road
Fayetteville, North Carolina 28306

PHASING PLAN OVERVIEW
TERMINAL PROJECT AREA

DRAWN BY:
REVIEWED BY: FDC
DATE: 6-20-19
PROJECT NO.: 1515

REVISIONS

SHEET NUMBER
C1.03



VICINITY MAP (N.T.S.)

NC GRID NAD 83

SITE NOTES

1. INSTALL TURNDOWN SIDEWALK. SEE SHT. C4.0, #14.
2. INSTALL STANDARD SIDEWALK. SEE SHT. C4.0, #12 & #13.
3. INSTALL HEAVY DUTY ASPHALT. SEE SHT. C4.0, #4.
4. INSTALL ADA ACCESSIBLE RAMPS. SEE SHT. C4.0, #1 & #2.
5. INSTALL MEDIUM DUTY ASPHALT. SEE SHT. C4.0, #3.
6. INSTALL CONCRETE SPEED HUMP. SEE SHT. C4.0, #11.
7. INSTALL STANDARD CURB & GUTTER. DRIVE TO REMAIN OPEN UNTIL RENTAL CAR LOT IS CONSTRUCTED SEE SHT. C4.0, #5.
8. TRANSITION GUTTER TO MATCH EX. GUTTER WIDTH.
9. INSTALL ADA PARKING STRIPING AND SIGNAGE. SEE SHT. C4.1, #2 & #3
10. INSTALL PEDESTRIAN CROSSWALK MARKINGS. SEE SHT. C4.1, #5.
11. INSTALL PARKING STRIPING. SEE SHT. C4.1, # 2 FOR STRIPE DETAIL.
12. INSTALL SPEED HUMP WARNING MARKINGS.
13. INSTALL TRAFFIC ARROWS. SEE SHT. C4.1, #4.
14. RELOCATE INFORMATION SIGNS.
15. INSTALL STOP BAR. SEE SHEET C4.1, #1.
16. INSTALL BOLLARDS. SEE SHT. C4.1, #10.
17. INSTALL DECORATIVE BOLLARDS. SEE SHT. C4.1, #10.
18. INSTALL PERMANENT FENCING. SEE SHT. C4.1, #11. SEE ALSO FENCE ALTERNATE DETAIL SHT. C4.2, #16.
19. INSTALL CONCRETE REINFORCED PAVEMENT. SEE SHT. C4.1, #17.
20. INSTALL TEMPORARY PARKING BUMPERS. REMOVE AND FILL HOLES UPON COMPLETION OF RENTAL LOT.
21. BLACK OUT LINES FOR DRIVE ACCESS.
22. INSTALL REINFORCED CONCRETE SLAB WITH TURNDOWN. SEE SHT. C4.1, #14.
23. REINSTALL RENTAL VEHICLE SIGNAGE SAVED FROM TEMPORARY LOT IN CORDINATION WITH OWNER. PROVIDE NEW POST SIMILAR TO EXISTING AND REPLACE ANY DAMAGED SIGNAGE.
24. INSTALL TEMPORARY RENTAL VEHICLE SIGNAGE SAVED FROM EXISTING LOT IN CORDINATION WITH OWNER. USE NEW POST.
25. INSTALL CONSTRUCTION SIGN. SEE SHT C1.03.
26. INSTALL WHEEL STOPS. SEE SHEET C4.2, #12. (3)

ADDITIONAL NOTES

1. **ALL GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND OTHER INFORMATION INDICATED ON COVER SHEET SHALL APPLY TO THIS PLAN**
2. ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE BENCHMARK AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR WITH THE SURVEYOR OF RECORD PRIOR TO BEGINNING CONSTRUCTION. SEE SHEET C1.0 FOR BENCHMARK INFORMATION.
3. SURVEY OF RECORD: ACCUTECH SURVEYING & MAPPING, CONCORD, NC (704) 784-3286

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GRAPHIC SCALE (IN FEET) 1 inch = 30 ft.

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NORTH CAROLINA
2020
REGISTERED LANDSCAPE ARCHITECT
CRAWFORD, IV

CONSTRUCTION SET

Fayetteville Regional Airport – Airline Terminal Improvements Part 2

Site Plan

400 Airport Road
Fayetteville, North Carolina 28306

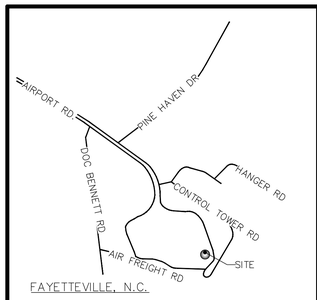
DRAWN BY: ILB
REVIEWED BY: FDC
DATE: 6-20-19
PROJECT NO.: 1515

REVISIONS

1. 8.20.2020 – Revised temp rental lot.
2. 9-22-20 Revised ADA ramps & fence
3. 9-29-20 Driveways, wheel stops ,pa mark, bollard, structure pad

SHEET NUMBER

C2.0



VICINITY MAP (N.T.S.)

NC GRID NAD 83

SITE NOTES

Ⓐ INSTALL PARKING SPACE NUMBER KEY SIGNAGE. SEE RENTAL VEHICLE SIGN DETAIL THIS SHEET.

Ⓔ INSTALL TRAFFIC ARROWS. SEE SHT. C4.1, #4.

NOTES

IDENTITY SIGNAGE
Install all stored rental vehicle panel signage in the locations shown.

Inventory all existing rental vehicle panels and relocate or provide new panels per the table.

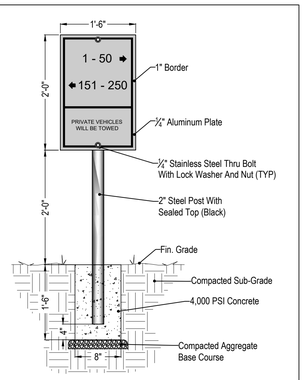
This item shall include all signs, panels, connections, hardware, foundations, and installation.

PARKING SPACE NUMBER KEY SIGNAGE
This item shall include all signs, connections, hardware, foundation, and installation.

ADDITIONAL NOTES

1. **ALL GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND OTHER INFORMATION INDICATED ON COVER SHEET SHALL APPLY TO THIS PLAN**
2. ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE BENCHMARK AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR WITH THE SURVEYOR OF RECORD PRIOR TO BEGINNING CONSTRUCTION. SEE SHEET C1.0 FOR BENCHMARK INFORMATION.
3. SURVEY OF RECORD: ACCUTECH SURVEYING & MAPPING, CONCORD, NC (704) 784-3286

NOTES:
- SIGN COLOR SELECTED BY OWNER.
- SIGNS (10)
  1. 1 - 16
     17 - 26
  2. 27 - 39
     40 - 54
  3. 55 - 75
     76 - 96
  4. 97 - 113
     114 - 130
  5. 131 - 148
     149 - 165
  6. 166 - 179
     180 - 192
  7. 193 - 203
     204 - 213
  8. 214 - 221
     222 - 229
  9. 230 - 235
     236 - 240
  10. 241 - 250



PARTIAL ELEVATION VIEW
N.T.S.

RENTAL VEHICLE PARKING DIRECTION SIGN & FOOTING
NOT TO SCALE

RENTAL VEHICLE SIGNAGE LOCATION AND PANEL KEY
NOTE: FOR RE-USE OF EXISTING SIGNS, SEE FOOTING DETAIL, ADDENDUM #2.

Sign Post Designation	Existing panels locations	New changes
1	Enterprise (single)	National / Alamo (single)
2	Enterprise (single)	National / Alamo (single)
3	Enterprise (single)	None
4	Avis (single)	Change to National / Alamo (double)
5	Hertz (double)	Change to National / Alamo (double)
6	Hertz (double)	Change to Enterprise (double)
7	Hertz (double)	Change to Enterprise (double)
8	Hertz (double)	Change to Enterprise / Avis (double)
9	Alamo / National (split)	Change to Enterprise / Avis (double)
10	Alamo / National (split)	Change to Avis (double)
11	Enterprise (single)	Change to Avis (double)
12	Enterprise (single)	Change to Avis / Hertz (double)
13	Avis (single)	Change to Hertz (double)
14	Avis (single)	Change to Hertz (double)
15	Avis (double)	Change to Hertz (double)
16	Avis / Budget (double)	Change to Hertz / Budget (double)
17	Avis (single)	Change to Hertz (double)
18	Budget (double)	Change to Budget / Thrifty (double)
19	Budget (double)	None
20	Thrifty / Dollar (double)	None
21	Thrifty / Dollar (double)	None
22	Thrifty (single)	None
23	Thrifty (single)	None

EXISTING SIGNAGE TO BE REINSTALLED ARE NUMBERS 1-10
FIELD SIGNAGE ARE NUMBERS 11-23

INSTALL SEQUENTIAL NUMBERS AT EACH PARKING SPACE (NEW & EX. RENTAL CAR LOT). USE HIGH VISIBILITY INDUSTRIAL GRADE TRAFFIC PAINT. NUMBERS SHALL BE 18" TALL.

INSTALL PARKING SPACE NUMBER KEY SIGNAGE

LONG TERM PARKING LOT
SHORT TERM PARKING LOT
RENTAL CAR LOT
TERMINAL LOOP ROAD
AIR FREIGHT ROAD
DUMPSTER AREA
SNOW REMOVAL EQUIPMENT STORAGE
AIRPORT MGMT PARKING LOT
TERMINAL BUILDING
EXISTING SIDEWALK
EXISTING FENCE
FUEL

GRAPHIC SCALE (IN FEET) 30 0 15 30 60 120 — 1 inch = 30 ft.

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NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1020 WILLIAM D. CRAWFORD, JR.

CONSTRUCTION SET

Fayetteville Regional Airport – Airline Terminal Improvements Part 2

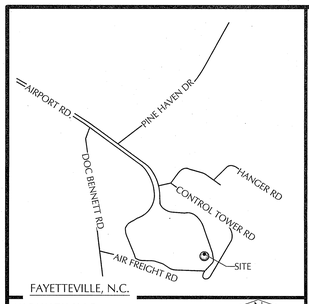
Rental Car Parking Numbering and Signage Plan

400 Airport Road
Fayetteville, North Carolina 28306

DRAWN BY: ILB
REVIEWED BY: FDC
DATE: 6-20-19
PROJECT NO.: 1515

REVISIONS (FOR SHEET C2.1 ONLY)
1 REV. SIGN LOC. & PANEL KEY #
2 REMOVED SITE NOTES 9-21-21

SHEET NUMBER
C2.1



VICINITY MAP (N.T.S.)

GRADING / EROSION CONTROL NOTES

1. CONVERT EX. INLET TO JUNCTION BOX WITH MANHOLE TOP. SEE SHT. C4.0, #9.
2. INSTALL CURB INLET. SEE SHT. C4.0, #8.
3. RECONSTRUCT EX. INLET TO DROP INLET W/ GRATE. SEE SHT. C4.0, #6 & #7.
4. RECONSTRUCT YARD INLET W/ GRATE TO JUNCTION BOX W/ MANHOLE TOP. SEE SHT. C4.0, #9.
5. INSTALL INLET PROTECTION. SEE SHT. C4.0, #17.
6. INSTALL CONSTRUCTION ENTRANCE. SEE SHT C4.0, #15.
7. INSTALL SILT FENCE WITH STRAW WATTLE OUTLET. SEE SHT. C4.0, # 16 & #18.
8. INSTALL 8LF OF 8" PVC (SCH 40) @2.08%.
9. RECONSTRUCT EX. DI TO JB W/ MH TOP. RAISE TOP TO MATCH FINISH GRADE.
10. INVESTIGATE SANITARY SEWER DEPTH PRIOR TO INSTALLING FOOTINGS. IF IN CONFLICT, SHIFT A MINIMUM OF 3 FEET.
11. INVESTIGATE TELECOMMUNICATION LINE DEPTH PRIOR TO INSTALLING FOOTINGS. IF IN CONFLICT, ADJUST CABLES IN CORDINATION WITH STRUCTURAL ENGINEER.
12. RELOCATE EXISTING ROOF DRAIN OUTSIDE COLUMN FOOTING LINE

ADDITIONAL NOTES

1. **ALL GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND OTHER INFORMATION INDICATED ON THE COVER SHEET SHALL APPLY TO THIS PLAN**
2. ENSURE ALL NEW AND/OR READJUSTED CLEANOUTS AND/OR MANHOLE TOPS/COVERS ARE FLUSH TO FINISH GRADE.
3. ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE BENCHMARK AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR WITH THE SURVEYOR OF RECORD PRIOR TO BEGINNING CONSTRUCTION. SEE BENCHMARK TABLE ON SHEET C1.0.
4. PURSUANT TO G.S.113A-57(2), THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED WILL, WITHIN 7 or 14 CALENDAR DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION. PURSUANT TO G.S. 113A-57(3), PROVISIONS FOR PERMANENT GROUND COVER SUFFICIENT TO RESTRAIN EROSION MUST BE ACCOMPLISHED FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT. ALL SEEDED AREAS WILL BE FERTILIZED, RE-SEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATION COVER. IF ANY SEEDING FAILURE OCCURS, THOSE AREAS SHALL BE RE-SEEDED WITH RYE GRAIN FOR TEMPORARY STABILIZATION AND PREPARED FOR PERMANENT SEEDING.
5. SEE DETAIL SHEETS FOR EROSION CONTROL MEASURES & MAINTENANCE.
6. CONTACT PERSON: BRADLEY WHITED - (910)-433-1160
7. PARCEL IDENTIFICATION NUMBER(S): 0435-70-1215
8. CONTRACTOR SHALL REMOVE TEMPORARY EROSION CONTROL MEASURES ONLY AFTER REMOVAL HAS BE APPROVED BY DENR.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING EROSION AND SEDIMENTATION CONTROL MONITORING ACCORDING TO NPDES PERMIT REQUIREMENTS.
10. SEE SHEET C4.1 FOR TEMPORARY & PERMANENT SEEDING REQUIREMENTS.
11. SEE SHEET C4.3 FOR WATER & SEWER DETAILS.

EROSION CONTROL CONSTRUCTION SEQUENCE

1. OBTAIN ALL NECESSARY PERMITS AND APPROVALS AND HOLD PRE-CONSTRUCTION CONFERENCE.
2. INSTALL GRAVEL CONSTRUCTION ENTRANCE.
3. CLEAR AND GRUB THE SITE WITHIN THE LIMITS OF CONSTRUCTION.
4. APPLY TEMPORARY SEEDING TO ALL DISTURBED AREAS.
5. ROUGH GRADE THE PROPOSED PAVED AREAS.
6. INSTALL STORM WATER UTILITIES. INSTALL HARDWARE CLOTH AND GRAVEL INLET PROTECTION AROUND NEW INLETS.
7. INSTALL CONCRETE SIDEWALKS, CURB AND GUTTER.
8. INSTALL ASPHALT PAVEMENT.
9. APPLY PERMANENT SEEDING (GROUND COVER) TO ALL DISTURBED AREAS.
10. TEMPORARY MEASURES SHALL BE REMOVED AFTER APPROVAL FOR REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURES BY NCDENR HAS BEEN OBTAINED.

DWQ Construction General Permit Ground Stabilization Requirements*

Site Area Description	Stabilization Time Frame	Stabilization Time Frame Exceptions
Perimeter dikes, swales, ditches and slopes	7 days	None
High Quality Water (HQW) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
Slopes 3:1 or flatter	14 days	7-days for slopes greater than 50 feet in length
All other areas with slopes flatter than 4:1	14 days	None (except for perimeters and HQW Zones)

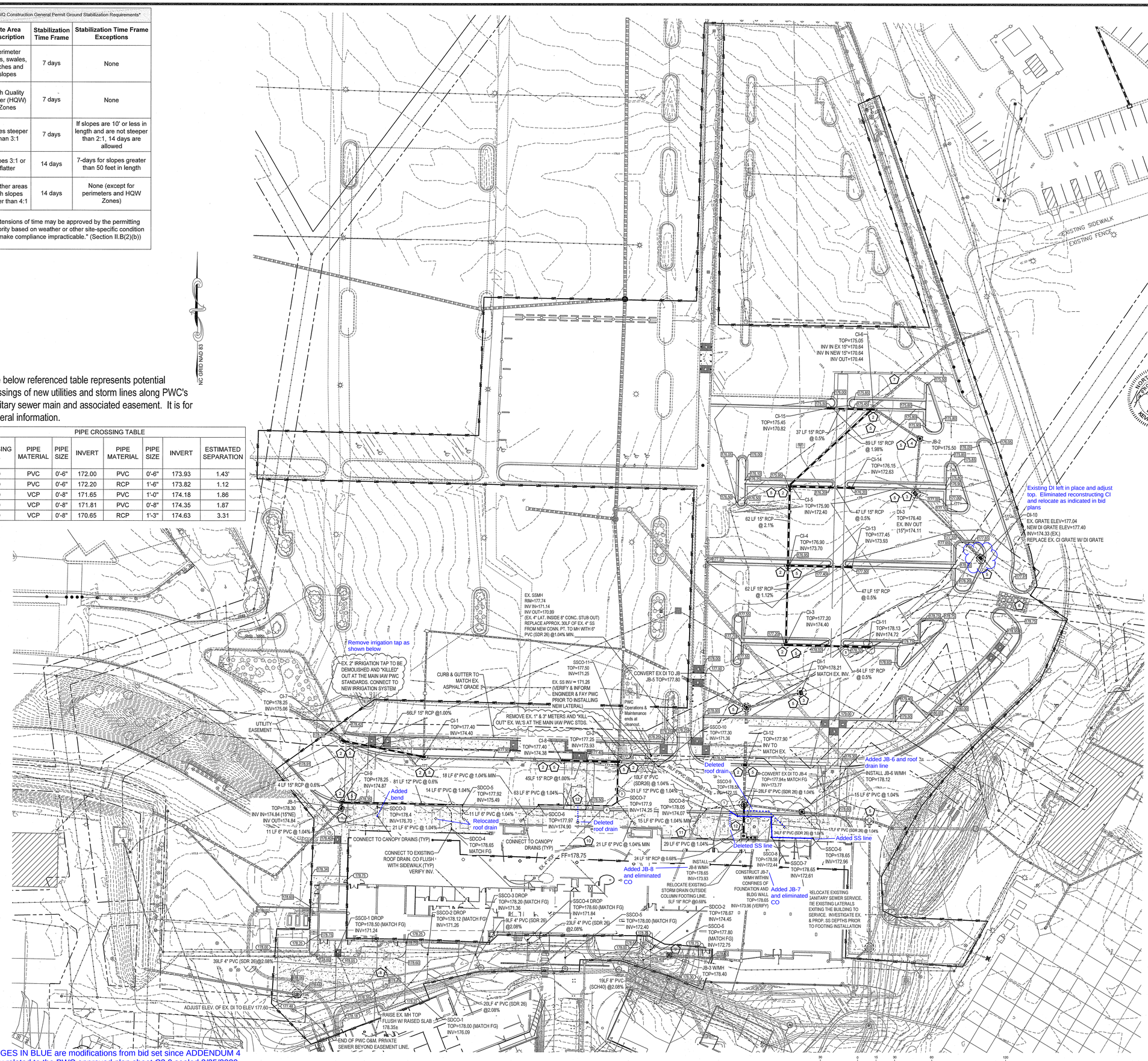
* "Extensions of time may be approved by the permitting authority based on weather or other site-specific condition that make compliance impracticable." (Section II.B(2)(b))

NC GRID NAD 83

The below referenced table represents potential crossings of new utilities and storm lines along PWC's sanitary sewer main and associated easement. It is for general information.

PIPE CROSSING TABLE

CROSSING NO.	PIPE MATERIAL	PIPE SIZE	INVERT	PIPE MATERIAL	PIPE SIZE	INVERT	ESTIMATED SEPARATION
1	PVC	0'-6"	172.00	PVC	0'-6"	173.93	1.43'
2	PVC	0'-6"	172.20	RCP	1'-6"	173.82	1.12
3	VCP	0'-8"	171.65	PVC	1'-0"	174.18	1.86
4	VCP	0'-8"	171.81	PVC	0'-8"	174.35	1.87
5	VCP	0'-8"	170.65	RCP	1'-3"	174.63	3.31



CHANGES IN BLUE are modifications from bid set since ADDENDUM 4 as they related to the PWC approved plan sheet C3.0 sealed 2/25/2020.

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NORTH CAROLINA PROFESSIONAL SEAL 027502 ENGINEER KEVIN S. LINDSAY 2/25/20
UTILITIES

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1020 CRAWFORD 2/25/20
SITE/GRADING
CONSTRUCTION SET

Fayetteville Regional Airport - Airline Terminal Improvements Part 2

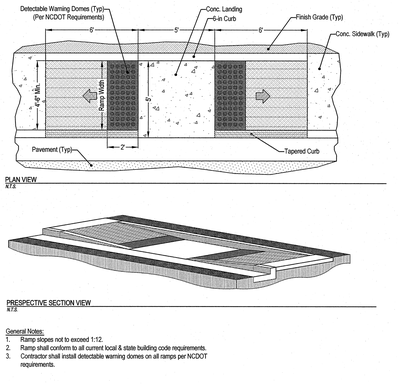
400 Airport Road
Fayetteville, North Carolina 28306

Grading, Drainage, Erosion Control & Utilities Plan

DRAWN BY: ILB
REVIEWED BY: FDC
DATE: 6-20-19
PROJECT NO.: 1515

REVISIONS
1 SS & STORM RE-ROUTE,
2 REMOVE WM'S 10-2-19,
3 MOVED CI-11 12-31-19
4 CHANGED DI-10 2-20-20

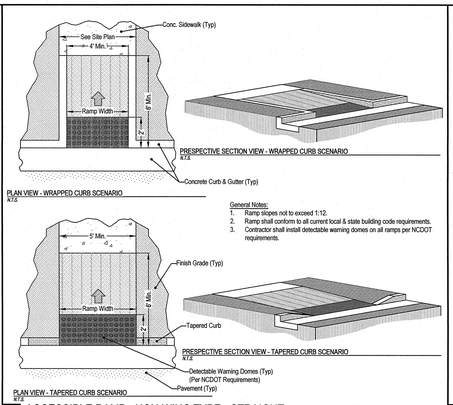
SHEET NUMBER
C3.0



General Notes:

1. Ramp slopes not to exceed 1:12.
2. Ramp shall conform to all current local & state building code requirements.
3. Contractor shall install detectable warning domes on all ramps per NCDOT requirements.

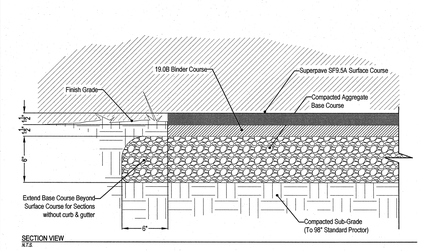
1 ACCESSIBLE RAMP - "IN-LINE" TYPE
NOT TO SCALE



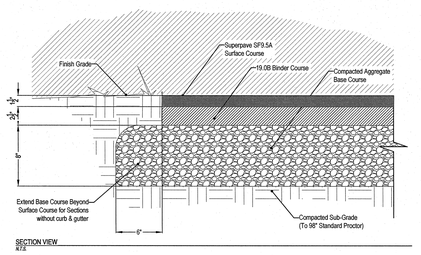
General Notes:

1. Ramp slopes not to exceed 1:12.
2. Ramp shall conform to all current local & state building code requirements.
3. Contractor shall install detectable warning domes on all ramps per NCDOT requirements.

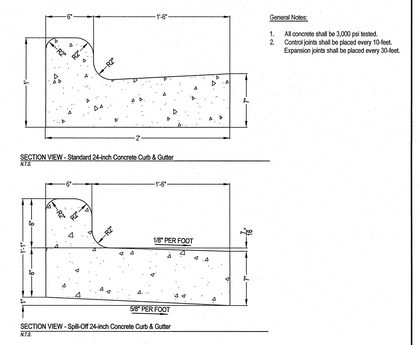
2 ACCESSIBLE RAMP - NON-WING TYPE - STRAIGHT
NOT TO SCALE



3 ASPHALT PAVEMENT - MEDIUM DUTY
NOT TO SCALE



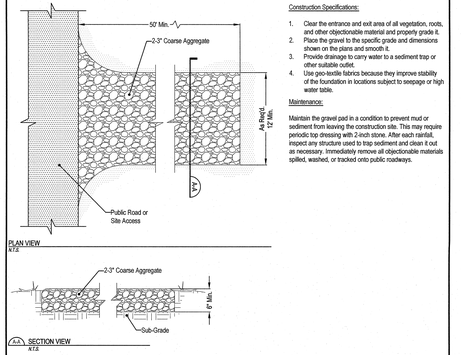
4 ASPHALT PAVEMENT - HEAVY DUTY
NOT TO SCALE



General Notes:

1. All concrete shall be 3,000 psi tested.
2. Control joints shall be placed every 10-feet. Expansion joints shall be placed every 30-feet.

5 CONCRETE CURB & GUTTER: 24-INCH
NOT TO SCALE

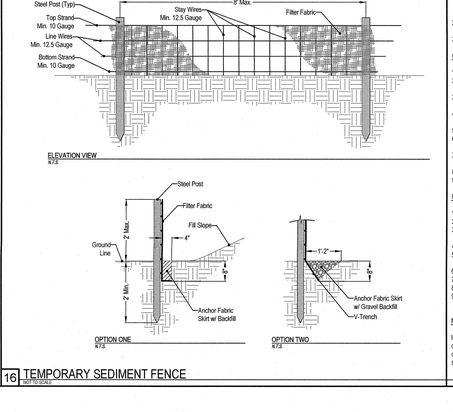


Pipe Diameter [A] (in)	Dimensions (ft)		
	B	C (Min.)	D
12	3.50	2.33	4.83
15	3.50	2.58	4.83
18	4.00	2.91	5.33
24	4.00	3.41	5.33
30	4.00	3.91	5.33
36	4.00	4.50	5.33
42	4.00	4.91	5.33
48	4.00	5.41	5.91

General Notes:

1. Riser height shall be adjusted as necessary to bring frame & grate to finish grade.
2. All basins over 2'-0" in depth shall be provide with copolymer polypropylene structure steps per NCDOT Standard 840.66 at 1'-2" o.c. unless otherwise specified or required.
3. Use Type "E", "F", & "G" grates per NCDOT Standard 840.03 unless otherwise specified.
4. Jumbo Brick will be permitted unless otherwise specified. Concrete Brick or 4" Solid Concrete Blocks may be used in lieu of clay bricks. for basins 8-ft in height or less use 8-in walls. Over 8-ft use 12-in walls up to 6-ft from top then continue with 8-in wall for the remaining 6-ft.
5. Inverts shall be shaped to form a smooth, regular surface, sloped to prevent sedimentation and provide positive drainage.
6. All concrete used shall be 4000 psi.
7. This detail is a general representation of a drop inlet structure as it relates to the orientation and placement of components. actual field and design conditions may vary.
8. All basins located within areas of traffic shall be H20 Loaded Traffic Rated Precast Concrete Boxes per NCDOT Standards.

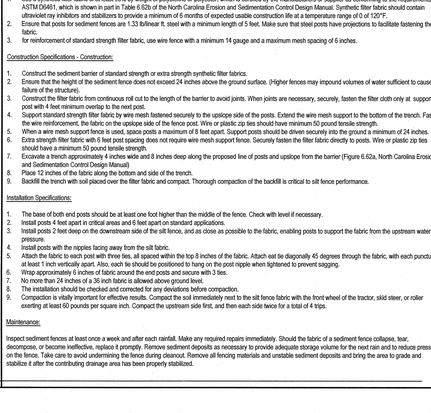
6 DROP INLET
NOT TO SCALE



General Notes:

1. For use as a Junction Box Contractor shall provide a cast iron frame and solid removable lid designer for H-20 loading.
2. Pre-cast concrete box shall be H-20 Traffic Rated unless otherwise approved by Designer.

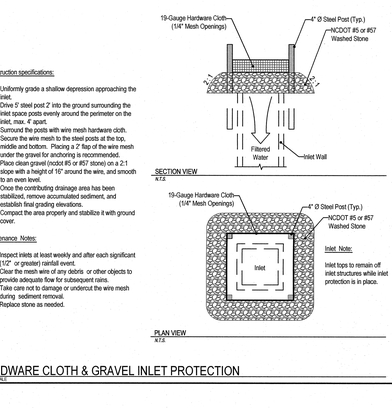
7 DROP INLET STRUCTURE (24-in x 24-in)
NOT TO SCALE



General Notes:

1. Riser height shall be adjusted as necessary to bring frame, grate, & hood to finish grade.
2. All basins over 2'-0" in depth shall be provide with copolymer polypropylene structure steps per NCDOT Standard 840.66 at 1'-2" o.c. unless otherwise specified or required.
3. Use Type "E", "F", & "G" grates per NCDOT Standard 840.03 unless otherwise specified.
4. Jumbo Brick will be permitted unless otherwise specified. Concrete Brick or 4" Solid Concrete Blocks may be used in lieu of clay bricks. for basins 8-ft in height or less use 8-in walls. Over 8-ft use 12-in walls up to 6-ft from top then continue with 8-in wall for the remaining 6-ft.
5. Inverts shall be shaped to form a smooth, regular surface, sloped to prevent sedimentation and provide positive drainage.
6. All concrete used shall be 3000 psi.
7. This detail is a general representation of a curb inlet structure as it relates to the orientation and placement of components. actual field and design conditions may vary.
8. All basins & grates located within areas of traffic shall be H20 Loaded Traffic Rated Precast Concrete Boxes per NCDOT Standards.

8 CURB INLET SYSTEM
NOT TO SCALE

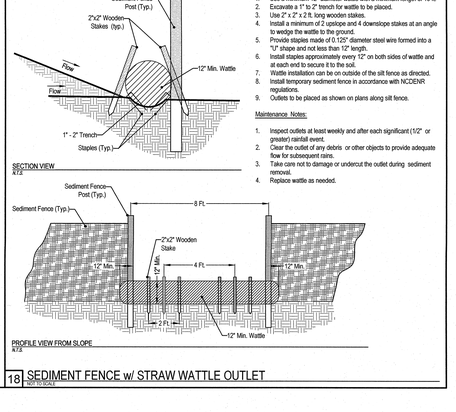


Pipe Diameter [A] (in)	Dimensions (ft)		
	B	C (Min.)	D
12	3.50	2.33	4.83
15	3.50	2.58	4.83
18	4.00	2.91	5.33
24	4.00	3.41	5.33
30	4.00	3.91	5.33
36	4.00	4.50	5.33
42	4.00	4.91	5.33
48	4.00	5.41	5.91

General Notes:

1. Riser height shall be adjusted as necessary to bring frame & lid to finish grade.
2. All boxes over 2'-0" in depth shall be provide with copolymer polypropylene structure steps per NCDOT Standard 840.66 at 1'-2" o.c. unless otherwise specified or required.
3. Manhole frame & cover shall be per NCDOT Standard 840.54 unless otherwise specified.
4. Jumbo Brick will be permitted unless otherwise specified. Concrete Brick or 4" Solid Concrete Blocks may be used in lieu of clay bricks. for basins 8-ft in height or less use 8-in walls. Over 8-ft use 12-in walls up to 6-ft from top then continue with 8-in wall for the remaining 6-ft.
5. Inverts shall be shaped to form a smooth, regular surface, sloped to prevent sedimentation and provide positive drainage.
6. All concrete used shall be 3000 psi (non-traffic areas); 4000 psi (traffic areas).
7. This detail is a general representation of a junction box structure as it relates to the orientation and placement of components. actual field and design conditions may vary.
8. All boxes located within areas of traffic shall be H20 Loaded Traffic Rated Precast Concrete Boxes per NCDOT Standards.

9 JUNCTION BOX
NOT TO SCALE



General Notes:

1. Contractor shall patch pavement to the same pavement cross section as existed prior to removing pavement. The street crown shall be restored. Adjust paver as required.
2. Where patch of curbing occurs contractor shall match existing curb grades within two-hundredths of a foot. Patches that are above the curb grade line will not be acceptable and shall be removed and repatched at no expense to the owner. Curb patch shall be the same shape/template and material as the existing curb.
3. Contractor shall be required to provide traffic control and devices as required by the M.U.T.C.D. or N.C. Supplement. Work cannot proceed until the measures are in place. Contractor shall be responsible for protecting new pavement from traffic and others sources of damage until asphalt has sufficiently cooled to prevent damage from surface deflections.
4. Contractor shall sawcut existing pavement straight and true prior to removing asphalt for utility installation.
5. After utility or other improvement is installed and tested contractor shall again sawcut existing pavement straight and true immediately prior to paving as noted above. [This note applies to permanent pavement patching only]
6. At no time shall the trench be left unattended with a vertical drop greater that 1-inch from asphalt surface to top of backfilled trench.
7. If pavement settlement occurs within 1-year the contractor shall repatch at no additional expense to the owner.
8. NCDOT will require full depth asphalt patch to match existing asphalt thickness on state maintained roads. NCDOT Requires patch paving same day as removal. [This note applies to permanent pavement patching only]
9. Test for density of compaction may be made at the option of the engineer and dificiencies shall be corrected by the contractor at no additional cost to the owner. The engineer may have compaction test performed after the backfill is complete. Contractor shall be required to excavate to various elevations for density testing excavation. Backfill and recompaction shall be performed at no additional costs to the owner.

10 PAVEMENT ASPHALT P - CUT PATCH
NOT TO SCALE

11 CONCRETE SPEED HUMP CROSSING
NOT TO SCALE

12 STANDARD CONCRETE SIDEWALK ADJOINING CURB & GUTTER
NOT TO SCALE

13 STANDARD CONCRETE SIDEWALK
NOT TO SCALE

14 CONCRETE SIDEWALK - TURN DOWN
NOT TO SCALE

Construction Specifications:

1. Clear the entrance and exit area of all vegetation, roots, and other objectionable material and properly grade it.
2. Place the gravel to the specific grade and dimensions shown on the plans and smooth it.
3. Provide drainage to carry water to a sediment trap or other suitable outlet.
4. Use geo-textile fabrics because they improve stability of the foundation in locations subject to seepage or high water table.

Maintenance:

Maintain the gravel pad in a condition to prevent mud or sediment from leaving the construction site. This may require periodic top dressing with 2-inch stone. After each rainfall, inspect any structure used to trap sediment and clean it out as necessary. Immediately remove all objectionable materials spilled, washed, or tracked onto public roadways.

15 TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
NOT TO SCALE

16 TEMPORARY SEDIMENT FENCE
NOT TO SCALE

Construction specifications:

1. Uniformly grade a shallow depression approaching the inlet.
2. Drive 5' steel post 2' into the ground surrounding the inlet space posts evenly around the perimeter on the inlet, max. 4' apart.
3. Surround the posts with wire mesh hardware cloth. Secure the wire mesh to the steel posts at the top, middle and bottom. Placing a 2' flap of the wire mesh under the gravel for anchoring is recommended.
4. Place clean gravel (nodot #5 or #57 stone) on a 2:1 slope with a height of 16" around the wire, and smooth to an even level.
5. Once the contributing drainage area has been stabilized, remove accumulated sediment, and establish final grading elevations.
6. Compact the area properly and stabilize it with ground cover.

Maintenance Notes:

1. Inspect inlets at least weekly and after each significant (1/2" or greater) rainfall event.
2. Clear the mesh wire of any debris or other objects to provide adequate flow for subsequent rains.
3. Take care not to damage or undercut the wire mesh during sediment removal.
4. Replace stone as needed.

17 HARDWARE CLOTH & GRAVEL INLET PROTECTION
NOT TO SCALE

Construction Notes:

1. Use a minimum 12" diameter wattle with a minimum length of 10 ft.
2. Excavate a 1" to 2" trench for wattle to be placed.
3. Use 2" x 2" x 2 ft. long wooden stakes.
4. Install a minimum of 2 upslope and 4 downslope stakes at an angle to wedge the wattle to the ground.
5. Provide staples made of 0.125" diameter steel wire formed into a "U" shape and not less than 12" length.
6. Install staples approximately every 12" on both sides of wattle and at each end to secure it to the soil.
7. Wattle installation can be on outside of the silt fence as directed.
8. Install temporary sediment fence in accordance with NCDENR regulations.
9. Outlets to be placed as shown on plans along silt fence.

Maintenance Notes:

1. Inspect outlets at least weekly and after each significant (1/2" or greater) rainfall event.
2. Clear the outlet of any debris or other objects to provide adequate flow for subsequent rains.
3. Take care not to damage or undercut the outlet during sediment removal.
4. Replace wattle as needed.

18 SEDIMENT FENCE w/ STRAW WATTLE OUTLET
NOT TO SCALE

Construction Specifications - Materials:

1. Use a synthetic filter fabric of at least 95% by weight of polyolefins or polyester, which is certified by the manufacturers or supplier as conforming to the requirements in ASTM D6461, which is shown in part in Table 6.62b of the North Carolina Erosion and Sedimentation Control Design Manual. Synthetic filter fabric should contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 6 months of expected usable construction life at a temperature range of 0 of 120°F.
2. Ensure that posts for sediment fences are 1.33 lb/linear ft. steel with a minimum length of 5 feet. Make sure that steel posts have projections to facilitate fastening the fabric.
3. for reinforcement of standard strength filter fabric, use wire fence with a minimum 14 gauge and a maximum mesh spacing of 6 inches.

Construction Specifications - Construction:

1. Construct the sediment barrier of standard strength or extra strength synthetic filter fabrics.
2. Ensure that the height of the sediment fence does not exceed 24 inches above the ground surface. (Higher fences may impound volumes of water sufficient to cause failure of the structure).
3. Construct the filter fabric from continuous roll cut to the length of the barrier to avoid joints. When joints are necessary, securely, fasten the filter cloth only at support post with 4 feet minimum overlap to the next post.
4. Support standard strength filter fabric by wire mesh fastened securely to the upslope side of the posts. Extend the wire mesh support to the bottom of the trench. Fasten the wire reinforcement, the fabric on the upslope side of the fence post. Wire or plastic zip ties should have minimum 50 pound tensile strength.
5. When a wire mesh support fence is used, space posts a maximum of 8 feet apart. Support posts should be driven securely into the ground a minimum of 24 inches.
6. Extra strength filter fabric with 6 feet post spacing does not require wire mesh support fence. Securely fasten the filter fabric directly to posts. Wire or plastic zip ties should have a minimum 50 pound tensile strength.
7. Excavate a trench approximately 4 inches wide and 8 inches deep along the proposed line of posts and upslope from the barrier (Figure 6.62a, North Carolina Erosion and Sedimentation Control Design Manual)
8. Place 12 inches of the fabric along the bottom and side of the trench.
9. Backfill the trench with soil placed over the filter fabric and compact. Thorough compaction of the backfill is critical to silt fence performance.

Installation Specifications:

1. The base of both end posts should be at least one foot higher than the middle of the fence. Check with level if necessary.
2. Install posts 4 feet apart in critical areas and 6 feet apart on standard applications.
3. Install posts 2 feet deep on the downstream side of the silt fence, and as close as possible to the fabric, enabling posts to support the fabric from the upstream water pressure.
4. Install posts with the nipples facing away from the silt fabric.
5. Attach the fabric to each post with three ties, all spaced within the top 8 inches of the fabric. Attach est tie diagonally 45 degrees through the fabric, with each puncture at least 1 inch vertically apart. Also, each tie should be positioned to hang on the post nipple when tightened to prevent sagging.
6. Wrap approximately 6 inches of fabric around the end posts and secure with 3 ties.
7. No more than 24 inches of a 36 inch fabric is allowed above ground level.
8. The installation should be checked and corrected for any deviations before compaction.
9. Compaction is vitally important for effective results. Compact the soil immediately next to the silt fence fabric with the front wheel of the tractor, skid steer, or roller exerting at least 60 pounds per square inch. Compact the upstream side first, and then each side twice for a total of 4 trips.

Maintenance:

Inspect sediment fences at least once a week and after each rainfall. Make any required repairs immediately. Should the fabric of a sediment fence collapse, tear, decompose, or become ineffective, replace it promptly. Remove sediment deposits as necessary to provide adequate storage volume for the next rain and to reduce pressure on the fence. Take care to avoid undermining the fence during cleanout. Remove all fencing materials and unstable sediment deposits and bring the area to grade and stabilize it after the contributing drainage area has been properly stabilized.

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NORTH CAROLINA
2019
GREGORY D. CRAWFORD, JR.
SEAL
BID SET

Fayetteville Regional Airport - Airline Terminal Improvements Part 2

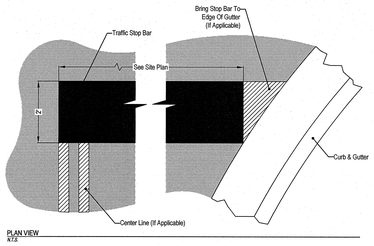
400 Airport Road
Fayetteville, North Carolina 28306

Details

DRAWN BY: ILB
REVIEWED BY: FDC
DATE: 6-20-19
PROJECT NO.: 1515

REVISIONS

SHEET NUMBER
C4.0

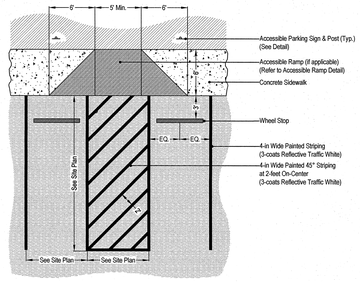


PLAN VIEW
NTS

General Notes:

1. Traffic Stop Bar shall be solid white reflective traffic paint (unless otherwise specified) as per dimensions shown. Paint shall be applied so as to provide full & complete coverage. Paint shall conform to NCDOT Standards For Roads & Structures unless otherwise specified.

1 GROUND BASED TRAFFIC STOP BAR
NOT TO SCALE

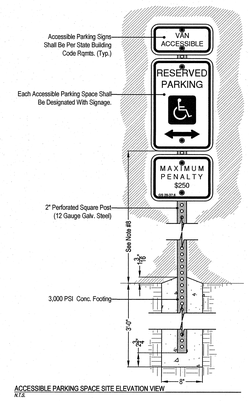


PARKING SPACE PLAN VIEW
NTS

General Notes:

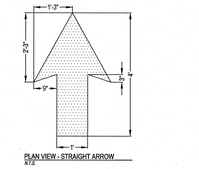
1. Contractor shall conform to all current State Building Code Requirements.
2. All accessible parking spaces shall be identified by above-ground signs only (See N.C.G.S.)
3. New accessible parking spaces SHALL NOT USE ground-painted symbols.
4. Accessible Parking areas shall have a maximum pavement slope of (2) percent in all directions.
5. Painted striping shall be applied in a straight and consistent manner. Paint shall be applied so as to provide full and complete coverage. Paint shall conform to NCDOT Standards For Roads and Structures unless otherwise specified.
6. All hardware to include, but not limited too, nuts, bolts, washers, and other related fasteners shall be stainless steel.
7. Sign material shall be 1/8" thick Engineer Grade reflective aluminum sheeting.
8. Mounting height of accessible parking signage shall be determined by one of the following conditions:
   - 8.1. If Pedestrians do not walk by/under signs; mounting height shall be 60-inches
   - 8.2. If Pedestrians walk by/under signs; mounting height shall be 84-inches

2 PARKING SPACE STRIPING / ACCESSIBILITY RAMP & PARKING SIGNAGE
NOT TO SCALE

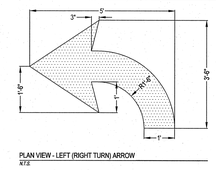


ACCESSIBLE PARKING SPACE SITE ELEVATION VIEW
NTS

3
NOT TO SCALE



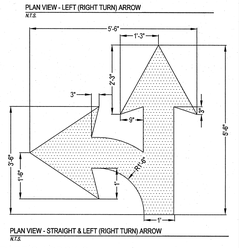
PLAN VIEW - STRAIGHT ARROW
NTS



PLAN VIEW - LEFT (RIGHT TURN) ARROW
NTS

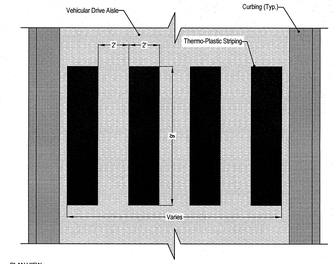
General Notes:

1. All Directional Traffic Arrows shall be solid white reflective traffic paint (unless otherwise specified) as per dimensions shown. Contractor shall applied so as to provide full & complete coverage. Paint shall conform to NCDOT Standards For Roads & Structures unless otherwise specified.
2. Reverse arrow(s) for opposite direction of traffic flow as required.



PLAN VIEW - STRAIGHT & LEFT (RIGHT TURN) ARROW
NTS

4 GROUND PAINTED DIRECTIONAL TRAFFIC ARROWS
NOT TO SCALE



PLAN VIEW
NTS

General Notes:

1. All striping shall be reflective traffic white thermo-plastic per NCDOT requirements unless otherwise specified. Coverage shall be full and complete.
2. Striping shall be centered across the width of the vehicular drive aisle.

5 HIGH-VISIBILITY PEDESTRIAN CROSSWALK STRIPING
NOT TO SCALE

THE FOLLOWING WAS TAKEN FROM THE STATE OF NORTH CAROLINA'S *EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL*

TABLE 6.10c
TEMPORARY SEEDING RECOMMENDATIONS FOR FALL

SEEDING MIXTURE:
SPECIES : RYE (grain)
RATE : 120 lb/acre

SEEDING DATES:
MOUNTAINS: AUG. 15 - DEC. 15
COASTAL PLAIN AND PIEDMONT: AUG. 15 - DEC. 30

SOIL AMENDMENTS:
FOLLOW SOIL TESTS OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 1,000 lb/acre 10-10-10 FERTILIZER.

MULCH:
APPLY 4,000 lb/acre STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE:
REPAIR AND REFERTILIZE DAMAGED AREAS IMMEDIATELY. TOPDRESS WITH 50 lb/acre OR NITROGEN IN MARCH. IF IT IS NECESSARY TO EXTEND TEMPORARY COVER BEYOND JUNE 15, OVERSEED WITH 50 lb/acre KOBE (PIEDMONT AND COASTAL PLAIN) OR KOREAN (MOUNTAINS) LESPEDEZA IN LATE FEBRUARY OR EARLY MARCH.

6 TEMPORARY SEEDING SPECIFICATION - FALL
NO SCALE

THE FOLLOWING WAS TAKEN FROM THE STATE OF NORTH CAROLINA'S *EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL*

TABLE 6.10b
TEMPORARY SEEDING RECOMMENDATIONS FOR SUMMER

SEEDING MIXTURE:
SPECIES : GERMAN MILLET
RATE : 40 lb/acre

SEEDING DATES:
MOUNTAINS: MAY. 15 - AUG. 15
PIEDMONT: MAY. 1 - AUG. 15
COASTAL PLAIN: APR. 15 - AUG. 15

SOIL AMENDMENTS:
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 750 lb/acre 10-10-10 FERTILIZER.

MULCH:
APPLY 4,000 lb/acre STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE:
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

7 TEMPORARY SEEDING SPECIFICATION - SUMMER
NO SCALE

THE FOLLOWING WAS TAKEN FROM THE STATE OF NORTH CAROLINA'S *EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL*

TABLE 6.10a
TEMPORARY SEEDING RECOMMENDATIONS FOR LATE WINTER & EARLY SPRING

SEEDING MIXTURE:
SPECIES : RYE (grain) ANNUAL LESPEDEZA (KOBE IN PIEDMONT AND COASTAL PLAIN, KOREAN IN MOUNTAINS)
RATE : 120 lb/acre 50 lb/acre
*OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT TO EXTEND BEYOND JUNE.

SEEDING DATES:
MOUNTAINS: ABOVE 2500 FT: FEB. 15 - MAY. 15
BELOW 2500 FT: FEB 1 - MAY 1
PIEDMONT: JAN. 1 - MAY. 1
COASTAL PLAIN: DEC. 1 - APR. 15

SOIL AMENDMENTS:
FOLLOW SOIL TESTS OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 750 lb/acre 10-10-10 FERTILIZER

MULCH:
APPLY 4,000 lb/acre STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE:
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

8 TEMPORARY SEEDING SPECIFICATION - LATE WINTER & EARLY SPRING
NOT TO SCALE

THE FOLLOWING WAS TAKEN FROM THE STATE OF NORTH CAROLINA'S *EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL*

TABLE 6.11p
SEEDING No. 1CP FOR : WELL- TO POORLY DRAINED SOILS WITH GOOD MOISTURE RETENTION; LOW MAINTENANCE.

SEEDING MIXTURE:

SPECIES:	RATE (lb/acre):
TALL FESCUE	80
PENSACOLA BAHIAGRASS	50
SERICEA LESPEDEZA	30
KOBE LESPEDEZA	10

SEEDING NOTES:
1. FROM SEPT. 1 - MAR. 1, USE UNSCARIFIED SERICEA SEED.
2. ON POORLY DRAINED SITES OMIT SERICEA AND INCREASE KOBE TO 30 lb/acre.
3. WHERE A NEAT APPEARANCE IS DESIRED, OMIT SERICEA AND INCREASE KOBE TO 40 lb/acre.

NURSE PLANTS:
BETWEEN APR. 15 AND AUG. 15, ADD 10 lb/acre GERMAN MILLET OR 15 lb/acre SUDANGRASS. PRIOR TO MAY 1 OR AFTER AUG. 15, ADD 25 lb/acre RYE (grain).

SEEDING DATES:

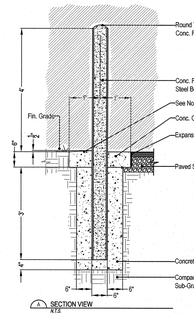
	BEST	POSSIBLE
EARLY SPRING:	FEB. 15 - MAR. 20	FEB. 15 - APR. 30
FALL:	SEPT. 1 - SEPT. 30	SEPT. 1 - OCT. 31

SOIL AMENDMENTS:
APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 3,000-5,000 lb/acre GROUND AGRICULTURAL LIMESTONE (USE THE LOWER RATE ON SANDY SOILS) AND 1,000 lb/acre 10-10-10 FERTILIZER.

MULCH:
APPLY 4,000 lb/acre GRAIN STRAW OR EQUIVALENT COVER OR ANOTHER SUITABLE MULCH. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR ROVING OR BY CRIMPING WITH A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE:
IF GROWTH IS LESS THAN FULLY ADEQUATE, REFERTILIZE IN THE SECOND YEAR, ACCORDING TO SOIL TESTS OR TOPDRESS WITH 500 lb/acre 10-10-10 FERTILIZER. MOW AS NEEDED WHEN SERICEA IS OMITTED FROM THE MIXTURE. RESEED, FERTILIZE, AND MULCH DAMAGED AREAS IMMEDIATELY.

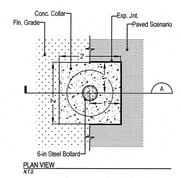
9 PERMANENT SEEDING SPECIFICATON - 1CP
NO SCALE



A SECTION VIEW
NTS

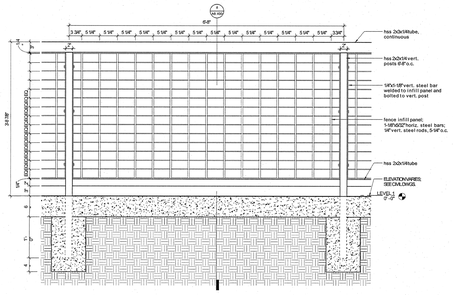
General Notes:

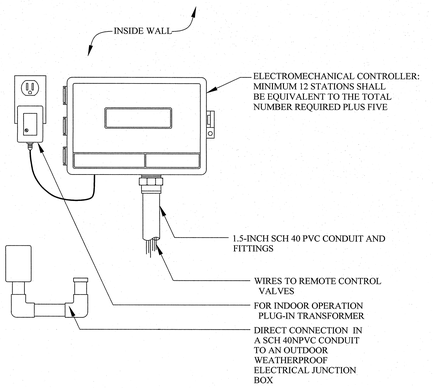
1. All concrete shall be 3,000 psi.
2. In non-paved areas contractor shall slope concrete collar to provide positive drainage away from bollard.
3. Install Yellow Cover.



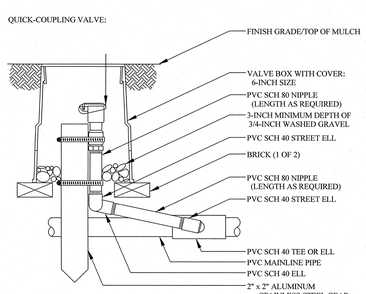
PLAN VIEW
NTS

10 6-INCH DIAMETER STEEL BOLLARD
NOT TO SCALE


6'-0"
3.3/8"
5 1/8"
5 1/8"
5 1/8"
5 1/8"
5 1/8"
5 1/8"
5 1/8"
5 1/8"
5 1/8"
5 1/8"
5 1/8"
3.3/8"
2'-0"
2'-0"
34 5/8"
1'-6"
1'-0"
1'-0"
1'-0"
hss 2x2x1/4tube, continuous
hss 2x2x1/4 vert. posts @ 8'-0 o.c.
1/4"x1-1/8"vert. steel bar welded to mtrl'l panel and bolted to vert. post
fence infill panel: 1-1/8"x0.0"horiz. steel bars; 3/4" vert. steel rods, 5-1/4" o.c.
hss 2x2x1/4tube
ELEVATION VARIES. SEE CIVIL DWGS.
LEVEL 2
LEVEL 1
hss 2x2x1/4tube, continuous
hss 2x2x1/4 vert. posts @ 8'-0 o.c.
fence infill panel: 1-1/8"x0.0"horiz. steel bars; 3/4" steel rods vert. 5-3/16" o.c.
bolted connections through 1/4"x1-1/8" vert. steel bar to posts
ALLOW 1/4" CMP FOR INFILL PANEL Installation TOLERANCE
hss 2x2x1/4tube
LEVEL 2
LEVEL 1
34 5/8"
MEDIAL SPACES
1'-0"
1'-0"
1'-0"

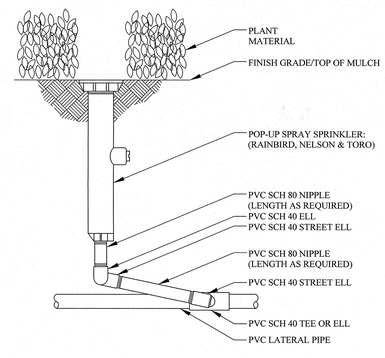


1 CONTROLLER
NOT TO SCALE

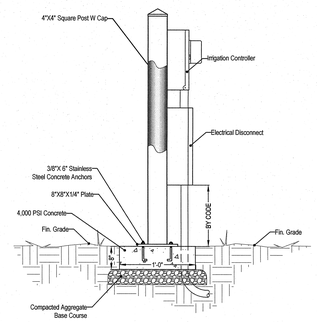


NOTE:
1. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

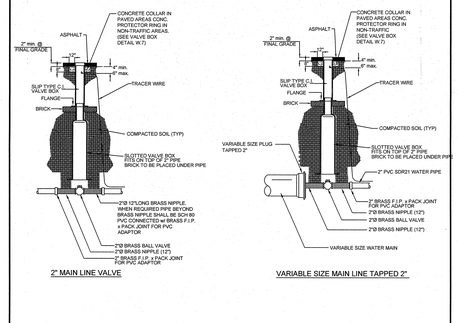
2 QUICK COUPLING VALVE
NOT TO SCALE



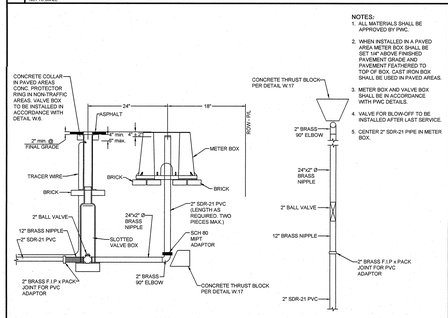
3 POP-UP SPRAY SPRINKLER
NOT TO SCALE



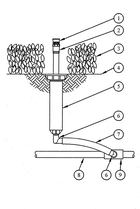
4 IRRIGATION ELECTRICAL MOUNTING POST (OUTDOORS)
NOT TO SCALE



5 2" VALVE INSTALLATION
NOT TO SCALE

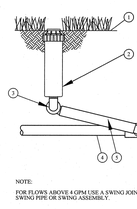


6 3" BLOW OFF VALVE
NOT TO SCALE



PRESSURE COMPENSATING FULL CIRCLE BUBBLER
RAIN BIRD 1400 ON 1804 POP-UP
NOT TO SCALE

CHOOSING EQUIPMENT CALLOUT METHOD
CHOOSE EITHER LEADERS OR BUBBLE CALLOUTS BY TURNING ON THE APPROPRIATE LAYER:
TEXT_LEADERS TEXT_BUBBLES
ITEM 1 1
TO TURN OFF THIS INSTRUCTION BOX, TURN OFF LAYER "INSTRUCT-CALLOUT".



NOTE:
FOR FLOWS ABOVE 4 GPM USE A SWING JOINT INSTEAD OF SWING PIPE OR SWING ASSEMBLY.

CHOOSING EQUIPMENT CALLOUT METHOD
CHOOSE EITHER LEADERS OR BUBBLE CALLOUTS BY TURNING ON THE APPROPRIATE LAYER:
TEXT_LEADERS TEXT_BUBBLES
ITEM 1 1
TO TURN OFF THIS INSTRUCTION BOX, TURN OFF LAYER "INSTRUCT-CALLOUT".

CHOOSING A DIFFERENT SPRINKLER MODEL
CHOOSE A DIFFERENT SPRINKLER MODEL BY TURNING ON THE APPROPRIATE LAYER:

3504-PC OPTION-3504-PC	3504-PC-SAM W/ N COVER OPTION-3504-PC-SAM-N
3504-PC-SAM OPTION-3504-PC-SAM	3504-PC W/ N COVER OPTION-3504-PC-N

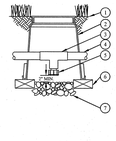
CHOOSE A DIFFERENT SWING ASSEMBLY BY TURNING ON THE APPROPRIATE LAYERS:

CONTRACTOR ASSEMBLED SWING ASSEMBLY
OPTION-SA
AND EITHER TEXT_SA_LEADERS OR TEXT_SA_BUBBLES

RAIN BIRD SWING ASSEMBLY
OPTION-RB-SA
AND EITHER TEXT_RB_SA_LEADERS OR TEXT_RB_SA_BUBBLES

TO TURN OFF THIS INSTRUCTION BOX, TURN OFF LAYER "INSTRUCT-OPTION".

ROTOR POP-UP SPRINKLER
3504 WITH SWING PIPE
NOT TO SCALE

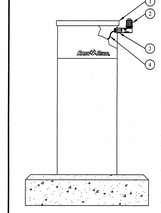


CHOOSING EQUIPMENT CALLOUT METHOD
CHOOSE EITHER LEADERS OR BUBBLE CALLOUTS BY TURNING ON THE APPROPRIATE LAYER:
TEXT_LEADERS TEXT_BUBBLES
ITEM 1 1
TO TURN OFF THIS INSTRUCTION BOX, TURN OFF LAYER "INSTRUCT-CALLOUT".

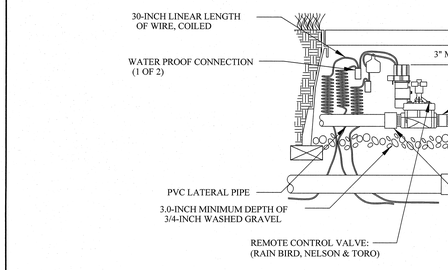
CHOOSING MODELS AND OPTIONAL FEATURES
INLET SIZE
CHOOSE A 3/4-INCH INLET SIZE BY TURNING ON THE APPROPRIATE LAYER:
OPTION-MODEL-075
TO TURN OFF THIS INSTRUCTION BOX, TURN OFF LAYER "INSTRUCT-OPTION".

DRAIN VALVE
16A-FDV OR 16A-FDV-075
NOT TO SCALE

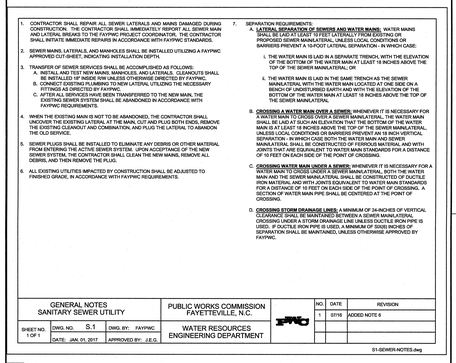
CHOOSING EQUIPMENT CALLOUT METHOD
CHOOSE EITHER LEADERS OR BUBBLE CALLOUTS BY TURNING ON THE APPROPRIATE LAYER:
TEXT_LEADERS TEXT_BUBBLES
ITEM 1 1
TO TURN OFF THIS INSTRUCTION BOX, TURN OFF LAYER "INSTRUCT-CALLOUT".



RAIN SENSOR
RSD-CEx PEDESTAL MOUNT
NOT TO SCALE



11 CONTROL VALVE
NOT TO SCALE



1. CONTRACTOR SHALL REPAIR ALL SEWER, LATERALS AND MAINS DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY REPORT ALL SEWER MAIN AND LATERAL BREAKS TO THE FAYPWC PROJECT COORDINATOR. THE CONTRACTOR SHALL INITIATE IMMEDIATE REPAIRS IN ACCORDANCE WITH FAYPWC STANDARDS.

2. SEWER MAINS, LATERALS, AND MANHOLES SHALL BE INSTALLED UTILIZING A FAYPWC APPROVED CUT SHEET, INDICATING INSTALLATION DEPTH.

3. TRANSFER OF SEWER SERVICES SHALL BE ACCOMPLISHED AS FOLLOWS:
   A. INSTALL AND TEST NEW MAINS, MANHOLES AND LATERALS. CLEANOUTS SHALL BE INSTALLED 12" INSIDE R/W UNLESS OTHERWISE DIRECTED BY FAYPWC.
   B. CONNECT EXISTING PLUMBING TO NEW LATERAL UTILIZING THE NECESSARY FITTINGS AS DIRECTED BY FAYPWC.
   C. AFTER ALL SERVICES HAVE BEEN TRANSFERRED TO THE NEW MAIN, THE EXISTING SEWER SYSTEM SHALL BE ABANDONED IN ACCORDANCE WITH FAYPWC REQUIREMENTS.

4. WHEN THE EXISTING MAIN IS NOT TO BE ABANDONED, THE CONTRACTOR SHALL REMOVE THE EXISTING LATERAL AT THE MAIN, CUT AND PLUG BOTH ENDS, REMOVE THE EXISTING CLEANOUT AND COMBINATION, AND PLUG THE LATERAL TO ABANDON THE OLD SERVICE.

5. SEWER PLUGS SHALL BE INSTALLED TO ELIMINATE ANY DEBRIS OR OTHER MATERIAL ENTERING THE EXISTING SEWER SYSTEM. AFTER UPON ACCEPTANCE OF THE NEW SEWER SYSTEM, THE CONTRACTOR SHALL CLEAN THE NEW MAINS, REMOVE ALL DEBRIS, AND THEN REMOVE THE PLUG.

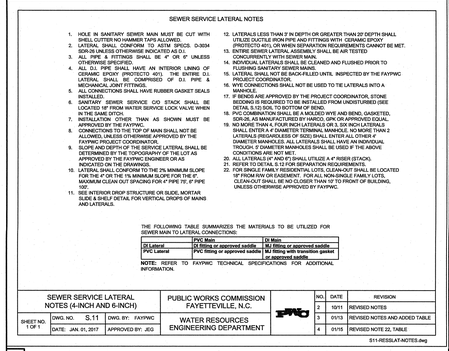
6. ALL EXISTING UTILITIES IMPACTED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISHED GRADE, IN ACCORDANCE WITH FAYPWC REQUIREMENTS.

7. SEPARATION REQUIREMENTS:
   A. **LATERAL SEPARATION OF SEWERS AND WATER MAINS:** WATER MAINS SHALL BE LAID AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWER MAINS/LATERAL, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10-FOOT LATERAL SEPARATION - IN WHICH CASE:
      i. THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAINS/LATERAL; OR
      ii. THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER MAINS/LATERAL WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH AND WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAINS/LATERAL.
   B. **CROSSING A WATER MAIN OVER A SEWER:** WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER MAINS/LATERAL, THE WATER MAIN SHALL BE LAID WITH ALL JOINTS EQUIVALENT TO WATER MAIN STANDARDS. THE MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAINS/LATERAL, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION - IN WHICH CASE BOTH THE WATER MAIN AND SEWER MAINS/LATERAL SHALL BE CONSTRUCTED OF FERROUS MATERIAL AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
   C. **CROSSING WATER MAIN UNDER A SEWER:** WHENEVER IT IS NECESSARY FOR A SEWER MAINS/LATERAL TO CROSS UNDER A WATER MAIN, THE WATER MAIN AND THE SEWER MAINS/LATERAL SHALL BE CONSTRUCTED OF DUCTILE IRON MATERIAL AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.
   D. **CROSSING STORM DRAINAGE LINES:** A MINIMUM OF 24-INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN A SEWER MAINS/LATERAL CROSSING UNDER A STORM DRAINAGE LINE UNLESS DUCTILE IRON PIPE IS USED. IF DUCTILE IRON PIPE IS USED, A MINIMUM OF SIXIES INCHES OF SEPARATION SHALL BE MAINTAINED, UNLESS OTHERWISE APPROVED BY FAYPWC.

GENERAL NOTES SANITARY SEWER UTILITY	PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.	NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. S.1	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	07/16	ADDED NOTE 6
	DATE: JAN. 01, 2017	APPROVED BY: J.E.G.				

S1-SEWER-NOTES.dwg

12



SEWER SERVICE LATERAL NOTES

1. HOLE IN SANITARY SEWER MAIN MUST BE CUT WITH HOLE CUTTER NO HAMMER TAPS ALLOWED.
2. LATERAL SHALL CONFORM TO ASTM SPECS. D-3034 SDR-26 UNLESS OTHERWISE INDICATED AS D.I.
3. ALL PIPE & FITTINGS SHALL BE 4" OR 6" UNLESS OTHERWISE SPECIFIED.
4. ALL D.I. PIPE & FITTINGS HAVE AN INTERIOR LINING OF CERAMIC EPOXY (PROTECTO 401). THE ENTIRE D.I. LATERAL SHALL BE COMPRESED OF D.I. PIPE & MECHANICAL JOINT FITTINGS.
5. ALL CONNECTIONS SHALL HAVE RUBBER GASKET SEALS OR EQUAL.
6. SANITARY SEWER SERVICE C/O STACK SHALL BE LOCATED 18" FROM WATER SERVICE LOCK VALVE WHEN IN THE SAME DITCH.
7. INSTALLATION OTHER THAN AS SHOWN MUST BE APPROVED BY FAYPWC.
8. CONNECTIONS TO THE TOP OF MAIN SHALL NOT BE ALLOWED, UNLESS OTHERWISE APPROVED BY THE FAYPWC PROJECT COORDINATOR.
9. SLOPE AND DEPTH OF THE SERVICE LATERAL SHALL BE APPROVED BY THE FAYPWC ENGINEER OF THE LOT AS APPROVED BY THE FAYPWC ENGINEER OR AS INDICATED ON THE DRAWINGS.
10. LATERAL SHALL CONFORM TO THE 2% MINIMUM SLOPE FOR THE 4" OR THE 1% MINIMUM SLOPE FOR THE 6". MAXIMUM CLEAN OUT SPACING FOR 4" PIPE TO 6" PIPE
11. SEE INTERIOR DROP STRUCTURE OR SLIDE, MORTAR SLIDE & SHELF DETAIL FOR VERTICAL DROPS OF MAINS AND LATERALS.
12. LATERALS LESS THAN 3' IN DEPTH OR GREATER THAN 25' DEPTH SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE AND FITTINGS WITH CERAMIC EPOXY (PROTECTO 401), OR WHEN SEPARATION REQUIREMENTS CANNOT BE MET.
13. ENTIRE SEWER LATERAL ASSEMBLY SHALL BE AIR TESTED CONCURRENTLY WITH SEWER MAIN.
14. INDIVIDUAL LATERALS SHALL BE CLEANED AND FLUSHED PRIOR TO ACCEPTANCE BY FAYPWC INSPECTOR.
15. LATERAL SHALL NOT BE BACKFILLED UNTIL INSPECTED BY THE FAYPWC PROJECT COORDINATOR.
16. WYE CONNECTIONS SHALL NOT BE USED TO TIE LATERALS INTO A MANHOLE.
17. WHERE APPROVED BY THE PROJECT COORDINATOR, STONE BEDDING IS REQUIRED TO BE INSTALLED FROM UNDISTURBED (SEE DETAIL S.12) SOIL TO BOTTOM OF BEND.
18. PVC COMBINATION SHALL BE A MOLDED WYE AND BEND, GASKETED, SDR-26, AS MANUFACTURED BY HARCO, GPK OR APPROVED EQUAL.
19. WHERE THE SERVICE LATERAL IS 6" OR LARGER, THE LATERAL SHALL ENTER A 4' DIAMETER TERMINAL MANHOLE. NO MORE THAN 2 LATERALS (REGARDLESS OF SIZE) SHALL ENTER ALL OTHER 4' DIAMETER MANHOLES. ALL LATERALS SHALL HAVE AN INDIVIDUAL TROUGH. 5' DIAMETER MANHOLES SHALL BE USED IF THE ABOVE CRITERIA CANNOT BE MET.
20. ALL LATERALS 6" AND #'S SHALL UTILIZE A 4" RISER (STACK).
21. REFER TO DETAIL S.12 FOR SEPARATION REQUIREMENTS.
22. FOR SINGLE FAMILY RESIDENTIAL LOTS, CLEAN-OUT SHALL BE LOCATED 18" FROM R/W OR EASEMENT. FOR ALL NON-SINGLE FAMILY LOTS, CLEAN-OUT SHALL BE NO CLOSER THAN 10' TO FRONT OF BUILDING, UNLESS OTHERWISE APPROVED BY FAYPWC.

THE FOLLOWING TABLE SUMMARIZES THE MATERIALS TO BE UTILIZED FOR SEWER MAIN TO LATERAL CONNECTIONS:

	PVC Main	DI Main
DI Lateral	DI fitting or approved saddle	MJ fitting or approved saddle
PVC Lateral	PVC fitting or approved saddle	MJ fitting with transition gasket or approved saddle

NOTE: REFER TO FAYPWC TECHNICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.

SEWER SERVICE LATERAL NOTES (4-INCH AND 6-INCH)	PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.	NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. S.11	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	2	10/11	REVISED NOTES
	DATE: JAN. 01, 2017	APPROVED BY: JEG		3	01/13	REVISED NOTES AND ADDED TABLE
				4	01/15	REVISED NOTE 22, TABLE

S11-RESSLAT-NOTES.dwg

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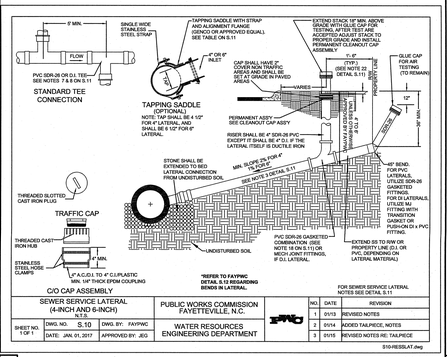
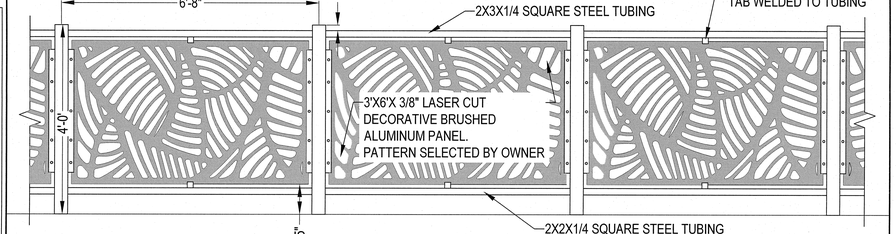


SEWER SERVICE LATERAL (4-INCH AND 6-INCH) N.T.S.	PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.	NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. S.10	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	01/13	REVISED NOTES
	DATE: JAN. 01, 2017	APPROVED BY: JEG		2	01/14	ADDED TAILPIECE, NOTES
				3	01/15	REVISED NOTES RE: TAILPIECE

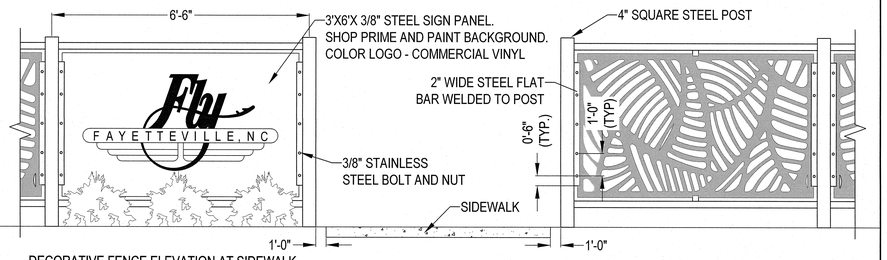
S10-RESSLAT.dwg

14

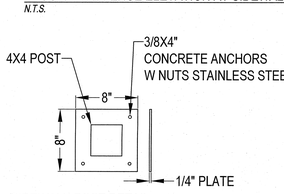
15 NOT USED
NO SCALE



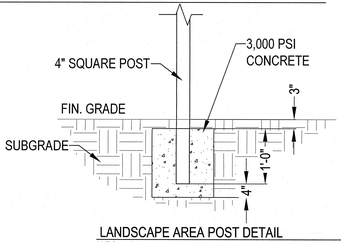
DECORATIVE FENCE ELEVATION
N.T.S.



DECORATIVE FENCE ELEVATION AT SIDEWALK
N.T.S.



SIDEWALK POST DETAIL
N.T.S. or Scale



LANDSCAPE AREA POST DETAIL
N.T.S. or Scale

DECORATIVE FENCE DETAIL (ALTERNATE)
NOT TO SCALE
16

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www.crawfordfdn.com

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1020 RICHARD D. CRAWFORD, JR. 7/15/19

BID SET

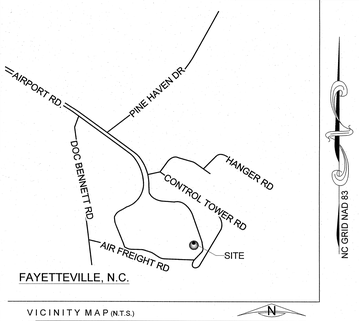
Fayetteville Regional Airport - Airline Terminal Improvements Part 2
400 Airport Road
Fayetteville, North Carolina 28306

Details

DRAWN BY: GAR
REVIEWED BY: FDC
DATE: 6-20-19
PROJECT NO.: 1515

REVISIONS

SHEET NUMBER
C4.2



VICINITY MAP (N.T.S.)

SITE NOTES

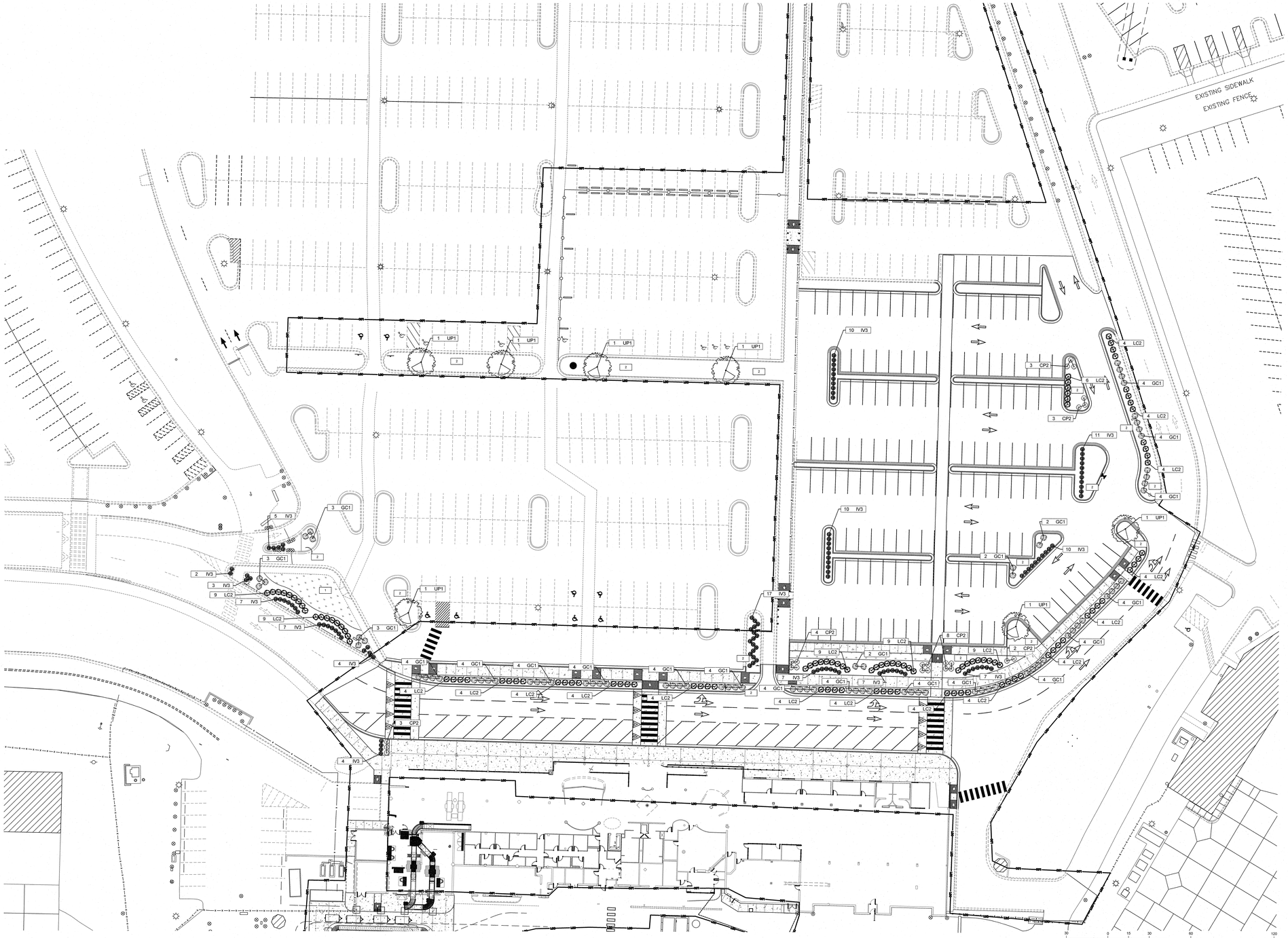
1. INSTALL BERMUDA SOD.
2. INSTALL MULCH PER DETAILS SHT. C4.1 #13 & #16.

ADDITIONAL NOTES

1. **ALL GENERAL NOTES, ABBREVIATIONS, SYMBOLS, AND OTHER INFORMATION INDICATED ON COVER SHEET SHALL APPLY TO THIS PLAN**
2. ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE BENCHMARK AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR WITH THE SURVEYOR OF RECORD PRIOR TO BEGINNING CONSTRUCTION. BENCHMARK IS AN {INSERT BENCH MARK DESCRIPTION} LOCATED {DIRECTION} OF PROJECT SITE, AND HAVING AN {ASSUMED} ELEVATION OF {123.45}
3. SURVEY OF RECORD: ACCUTECH SURVEYING & MAPPING, CONCORD, NC (704) 784-3286

Plant List Reference Table

Classification	Key	Common Name	Botanical Name	Quantity	Type / Size	Notes
Canopy Trees	UP1	Chinese Elm	Ulmus parvifolia	7	2.5" cal., 10' ht. minimum.	Healthy, Well Branched, Full Foliage
TOTAL CANOPY TREES				7		
TOTAL UNDERSTORY TREES				##		
Shrubs	CP2	False Cypress (Kings Gold)	Chamaecyparis pisifera "Kings Gold"	23	See Sizing Notes	Healthy, Full Foliage
	IV3	Dwarf Yaupon Holly	Ilex vomitoria "Schillings Dwarf"	111	See Sizing Notes	Healthy, Full Foliage
	LC2	Loropetalum (Razzleberri)	Loropetulum chinese rubrum "Razzleberri"	111	See Sizing Notes	Healthy, Full Foliage
	GC1	Golden hinoke cypress	Chamaecyparis obtusa 'Crippsii'	73	See Sizing Notes	Healthy, Full Foliage
TOTAL SHRUBS				318		
Sizing Notes	1.) Evergreen shrubs 18" at planting.					
	2.) Decidious shrubs 24" at planting.					



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NORTH CAROLINA
REGISTERED
LANDSCAPE ARCHITECT
1020
FRANK D. CRAWFORD JR.

BID SET

Fayetteville Regional Airport - Airline Terminal Improvements Part 2

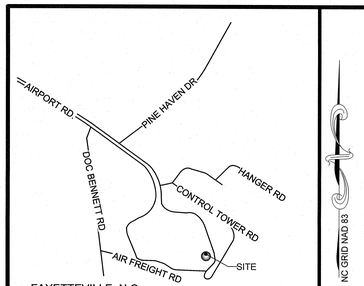
400 Airport Road
Fayetteville, North Carolina 28306

Landscape Plan

DRAWN BY: GAR
REVIEWED BY: FDC
DATE: 6-20-19
PROJECT NO.: 1515

REVISIONS

SHEET NUMBER
L1.0



VICINITY MAP (N.T.S.)

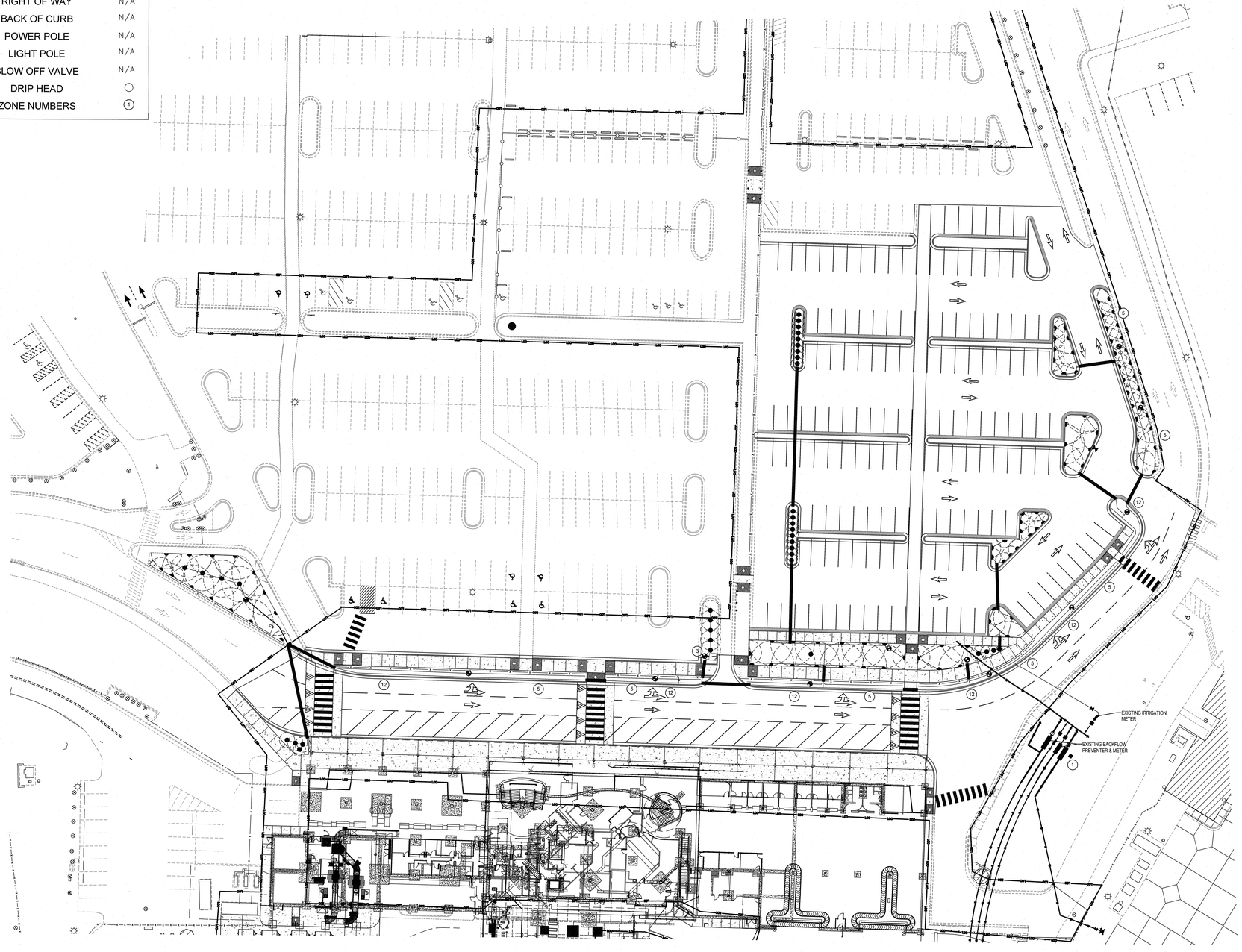
EXISTING		PROPOSED
W	WATER LINE	N/A
//	OVER HEAD ELECTRIC	N/A
X	CHAIN LINK FENCE	N/A
N/A	3" FEEDER LINE	
N/A	1.5" IRRIGATION LINE	
N/A	PVC SLEEVE	
N/A	LIMITS OF SPRAY	
N/A	PART CIRCLE	
N/A	FULL CIRCLE	
N/A	CONTROLLER	C
N/A	REMOTE CONTROL VALVE	
N/A	QUICK COUPLING VALVE	
N/A	BACKFLOW PREVENTION DEVICE	B
R/W	RIGHT OF WAY	N/A
BOC	BACK OF CURB	N/A
PP	POWER POLE	N/A
LP	LIGHT POLE	N/A
N/A	BLOW OFF VALVE	N/A
N/A	DRIP HEAD	
N/A	ZONE NUMBERS	1

IRRIGATION NOTES

1. INSTALL MINIMUM 12 ZONE CONTROLLER NEAR IRRIGATION BACKFLOW. CONTRACTOR TO PROVIDE ELECTRICAL SERVICE FOR CONTROLLER FROM SERVICE TO BACKFLOW HOT BOX. SHT. C4.2, #1
2. INSTALL 2" GATE VALVE.
3. INSTALL REMOTE CONTROL VALVES ON EACH IRRIGATION ZONE LINE.
4. INSTALL NEW 1-1/2" PR-200 PVC PIPING FOR ALL IRRIGATION LINES
5. INSTALL NEW 2" PR-200 PVC PIPING FOR ALL FEEDER LINES EXISTING BACKFLOW PREVENTION DEVICE. (SEE UTILITY PLAN)
6. INSTALL PART CIRCLE ROTORS AS APPROPRIATE.
7. INSTALL FULL CIRCLE ROTORS AS APPROPRIATE.
8. INSTALL 3" PVC SLEEVES UNDER ALL HARD SURFACE AREAS TO INCLUDE SIDEWALKS AND DRIVES.
9. INSTALL 2" BLOWOFF VALVES AT END OF EACH FEEDER LINE (SEE SHT. C4.2, #6).
10. INSTALL RAIN SENSOR ATTACHED TO CONTROLLER HOUSING
11. INSTALL DOUBLE LINE DRIP IRRIGATION SYSTEM IN THIS AREA.
12. INSTALL DOUBLE LINE DRIP IRRIGATION SYSTEM IN THIS AREA.

IRRIGATION REQUIREMENTS

1. THE CONTRACTOR SHALL PROVIDE A LAYOUT OF THE IRRIGATION SYSTEM TO THE OWNER'S AUTHORIZED REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION. THE CONTRACTOR SHALL PROVIDE A SYSTEM TO INCLUDE LINES, HEADS, VALVES AND OTHER MISCELLANEOUS COMPONENTS THAT WILL PROVIDE FOR THE ADEQUATE AND PROPER WATERING OF THE LANDSCAPED AREAS.
2. IN THE EVENT A IRRIGATION LAYOUT IS PROVIDED, THEN THE LAYOUT SHALL BE USED AS A GENERAL GUIDE DUE TO THE DIFFERENCES IN THE VARIOUS MANUFACTURERS' EQUIPMENT. THEREFORE, THE FINAL INSTALLED SYSTEM MAY INCLUDE ADDITIONAL ZONES AND/OR EQUIPMENT THAN WHAT THE LAYOUT MAY INDICATE.
3. ALL IRRIGATION IMPROVEMENTS SHALL BE INSTALLED PER CITY OF FAYETTEVILLE, NC. BUILDING CODE REQUIREMENTS.
4. ALL DAMAGE AND/OR DEFECTIVE PIPE SHALL BE REMOVED FROM THE SITE AT THE TIME OF REJECTION.
5. FINAL LOCATION OF THE AUTOMATIC CONTROLLERS SHALL BE APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
6. 120 VAC ELECTRICAL POWER SOURCE SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. METER BASE, DISCONNECT, UNISTRUT MOUNTING FRAME, & CONTROLLER SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL ALSO MAKE ALL FINAL CONNECTIONS FROM THE VALVES TO THE CONTROLLERS.
7. ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE UNLESS OTHERWISE SPECIFIED.
8. THE CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS AND VALVES FOR OPTIMUM COVERAGE WITH MINIMAL OVER SPRAY ONTO WALKS, STREETS, WALLS, ETC.
9. THE CONTRACTOR SHALL REPAIR OR REPLACE ALL EXISTING ITEMS DAMAGED BY THEIR WORK AT THEIR EXPENSE. THEY SHALL ALSO COORDINATE THEIR WORK WITH OTHER CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, PAVEMENT, ETC. IN THE EVENT OF UNDERGROUND OBSTRUCTIONS, THE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE FOR CONSULTATION PRIOR TO PROCEEDING WITH INSTALLATION.
10. THE SPRINKLER SYSTEM DESIGN SHALL BE BASED ON A MINIMUM OPERATING PRESSURE OF 45 PSI AND A MAXIMUM FLOW DEMAND OF 60 GPM. REGULATE OUTLET PRESSURE OF MASTER VALVE TO 60 PSI WHILE UNDER FLOW OF 60 GPM. THE CONTRACTOR SHALL VERIFY WATER PRESSURES PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE MINIMUM WATER PRESSURE INDICATED AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.
11. ALL SPRINKLER EQUIPMENT AND ASSOCIATED COMPONENTS SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS, AND BE INCLUDED IN THE BID COST.
12. ALL REMOTE CONTROL VALVES, GATE VALVES, QUICK COUPLERS, CONTROL WIRE AND COMPUTER CABLE PULL POINTS SHALL BE INSTALLED IN APPROVED VALVES BOXES WITH LOCKING COVERS.
13. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILED INFORMATION.
14. ALL MAINLINE AND LATERAL LINE PIPING AND CONTROL WIRES UNDER PAVING / AND CONCRETE SHALL BE INSTALLED IN SEPARATE SLEEVES. MAIN AND LATERAL LINE SLEEVES SHALL BE A MINIMUM OF (2X) THE DIAMETER OF THE PIPE TO BE SLEEVED. CONTROL WIRE SLEEVES SHALL BE OF SUFFICIENT SIZE FOR THE REQUIRED NUMBER OF WIRES UNDER PAVING.
15. DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM OR ANY RELATED COMPONENTS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES, OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE DESIGN. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
16. THE MINIMUM DEPTH OF PIPING SHALL BE 24-INCHES FROM FINISH GRADE.



GRAPHIC SCALE 30 0 15 30 60 120 (IN FEET) 1 inch = 30 ft.

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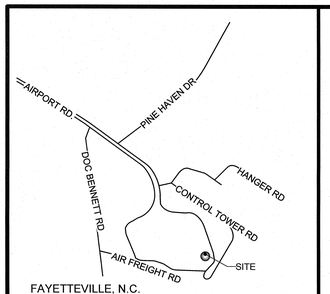

IRRIGATION SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract apply to this Section.

B. All system components shall be commercial grade.

1.2 SUMMARY

A. This Section includes piping, valves, sprinklers, lawn sprinkler specialties, accessories, controls, and wiring.

B. Related Sections: Specification that contain information related to earthwork, plantings and sod relate to this Section:

1.3 DEFINITIONS

C. Pipe sizes used in this Section are nominal pipe size (NPS) in inches. Equivalent SI (metric) sizes are indicated in millimeters (mm) in parentheses.

D. Supply Piping: Piping from water source to connection to irrigation system pressure piping. Piping is under same pressure as water supply.Piping in this category is not included in these Sections.

E. Circuit Piping: Downstream from control valves to sprinklers, specialties, and drain valves. Piping is under pressure during flow.

F. Drain Piping: Downstream from circuit piping drain valves. Piping is not under pressure.

G. Pressure Piping: Downstream from point of connection to water distribution piping to and including control valves. Piping is under water distribution system pressure. Piping in this category includes pressure regulators, and backflow preventers, when used.

H. Control Valve: Manual or automatic (electrically operated) valve for control water flow to irrigation system zone.

I. Drain Valve: Manual or automatic (pressure operated) drain valve for draining of irrigation system circuit piping.

J. The following are industry abbreviations for plastic materials:

1. ABS: Acrylonitrile-butadiene-styrene plastic.
2. NP: Nylon plastic.
3. PE: Polyethylene plastic.
4. PP: Polypropylene plastic.
5. PTFE: Polytetrafluoroethylene plastic.
6. PVC: Polyvinyl chloride plastic.

1.3 SYSTEM PERFORMANCE REQUIREMENTS

A. Minimum Water Coverage: 100 percent of turf and planting areas.

B. The layout is to be used as a guide and indicates in general the location of lines and components. The contractor shall provide a system to provide uniform and adequate watering of the plantings and groundcovers shown on the landscape plan. The final installed system will be dependent on the manufacture's requirements of their specific components.

C. Minimum Working Pressures: The following are minimum pressure requirements for piping, valves, and specialties, unless otherwise indicated:

1. Pressure Piping: 150 psig (1035 kPa).
2. Circuit Piping: 100 psig (690 kPa).
3. Drain Piping: 100 psig (690 kPa).

1.4 SUBMITTALS

A. Product Data: Include pressure rating, rated capacity, settings, and electrical data of selected models for the following:

1. Pressure regulators.
2. Water hammer arresters.
3. Valves. Include aboveground and underground; general-duty, manual and automatic control, and quick-coupler types.
4. Valve boxes.
5. Sprinklers.
6. Specialties. Include emitters, drip tubes, and other devices.
7. Controllers. Include wiring diagrams.
8. Wiring
9. Area drains.

B. Shop Drawings: Shop drawing showing irrigation system, including plan layout and locations, types, sizes, capacities, and flow characteristics of irrigation system components. Include water meters, backflow preventers, valves, piping, sprinklers and devices, accessories, controls, and wiring. Show areas of sprinkler spray and overspray.

C. Coordination Drawings: Show piping and major system components. Indicate interface and spatial relationship between piping, system components, adjacent utilities, and proximate structures.

D. Test Reports: As specified in "Field Quality Control" Article in Part 3.

E. Maintenance Data: To include in an operation and maintenance manual specified in Division 1. Include data for the following:

1. Backflow preventers
2. Pressure regulators.
3. Automatic control valves.
4. Sprinklers.
5. Specialties.
6. Controllers.

1.5 QUALITY ASSURANCE

A. Product Options: Drawings indicate size, profiles, and dimensional requirements of lawn sprinkler piping components and are based on specific types and models indicated. Other manufacturers' products with equal performance characteristics may be considered. Refer to Division 1 Section "Substitutions."

B. Comply with requirements of utility supplying water and authorities having jurisdiction for preventing backflow and back siphonage.

C. Comply with ASTM F 645, "Guide for Selection, Design, and Installation of Thermoplastic Water Pressure Piping Systems."

D. Comply with NFPA 70, "National Electrical Code," and Local and State Codes for electrical connections between wiring and electrically operated devices.

E. Listing/Approval Stamp, Label, or Other Marking: On equipment, specialties, and accessories made to specified standards.

1. The Terms "Listed" and "Labeled": As defined in "National Electrical Code," Article 100.
2. Listing and Labeling Agency Qualifications: A "Nationally Recognized Testing Laboratory" (NRTL) as defined in OSHA Regulation 1910.7

1.6 DELIVERY, STORAGE, AND HANDLING

A. Preparation for Transport: Prepare valves according to the following:

1. Ensure that valves are dry and internally protected against rust and corrosion.
2. Protect valves against damage to threaded ends and flange faces.
3. Set valves in best position for handling. Set valves closed to prevent rattling.

B. During Storage: Use precautions for valves according to the following:

1. Do not remove end protectors unless necessary for inspection; then, reinstall for storage.
2. Protect from weather. Store indoors and maintain temperature higher than ambient dew-point temperature. Support off ground or pavement in watertight enclosures when outdoor storage is necessary.

C. Deliver piping with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe-end damage and to prevent entrance of dirt, debris, and moisture.

D. Protect stored piping from moisture and dirt. Elevate above grade. Do not exceed structural capacity of floor when storing inside.

E. Protect flanges, fittings, and specialties from moisture and dirt.

F. Store plastic piping protected from direct sunlight. Support to prevent sagging and bending.

1.7 PROJECT CONDITIONS

A. Verify existing utility locations and that irrigation system piping may be installed in compliance with design and referenced standards.

1.8 SEQUENCING AND SCHEDULING

A. Maintain any uninterrupted water service to buildings during normal working hours. Arrange for temporary water shutoff with Owner.

B. Coordinate irrigation systems work with other disciplines, as required.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following or approved equal.

1. Backflow Preventers:(Provided by Utility contractor)
a. Ames co., Inc.
b. Buckner, Inc.
c. Cash by A.W. Cash Valve Mfg. Corp.
d. Cla-Val Co.
e. Conbraco Industries, Inc.
f. Febco
g. Hersey Products, Inc., Grinnell Corp.
h. Rain Bird Sprinkler Mfg. Corp.
i. Sparco, Inc.
j. Watts Regulator co.
k. Wilkins Regulator div., Zurn Industries, Inc.

2. Gate Valves for Underground Installation:
a. American Darling Valve Div., American Case Iron Pipe Co.
b. Clow Valve Co., McWane, Inc.
c. Kennedy Valve Div., MCWane, Inc.
d. Stock ham Valves & Fittings, Inc.
e. Waterous Co.

3. Valves for Aboveground and Pit Installation:
a. Grinnell Supply Sales Co., Grinnell Corp.
b. Jomar International, LTD.
c. Kitz Corp. of America
d. Lunkenheimer Co.
e. Milwaukee Valve Co., Inc.
f. Nibco, Inc.
g. Hammond Valve Div., Prairie Manufacturing Corp.
h. Red-White Valve Corp.
i. Stockham Valves & Fittings, Inc.
j. Walworth Co.
k. Watts Regulator Co.
l. Wm. Powell Co.

4. Corporation Stops and Valves for Underground Installation:
a. Ford Meter Box Co., Inc.
b. Hays Div., Romac Industries
c. A.Y. McDonald Mfg. Co.
d. Mueller Co., Grinnell Corp.

5. Automatic Control Valves:
a. Buckner, Inc.
b. Ceres Products Corp.
c. Champion Irrigation Products.
d. Hasslinger Manufacturing Corp.
e. Hunter Industries.
f. Imperial Underground Sprinkler Co.
g. Netafim Irrigation, Inc.
h. Rain Bird Sprinkler Mfg. Corp.
i. Superior Controls Co., Inc.
j. Telsco Industries; Weather-Matic Sprinkler Div.
k. Toro Co.; Irrigation Div.

6. Automatic Control Valves:
a. Buckner, Inc.
b. Champion Irrigation Products.
c. Hardie: James Hardie Irrigation, Inc.; Landscape Div.
d. Hit Products Corp.
e. Imperial Underground Sprinkler Co.
f. Lawnlife by Ceres Products Corp.
g. Nelson: L.R. Nelson Corp.
h. Rain Bird Sprinkler Mfg. Corp.
i. Richdel by James Hardie Irrigation, Inc., landscape Div.
j. Superior Controls Co., Inc.
k. Toro Co.; Irrigation Div.
l. Valcon by Automatic Irrigation Equipment co
m. Weather-matic Sprinkler Div., Telsco Industries.

7. Control-Valve Boxes:
a. Ametek by Plymouth Products Div., AMETEK
b. Applied Engineering Products.
c. Brooks Products, Inc., Polyplastics Div.
d. Carson Industries, Inc.
e. DFW/HPI by Hefco Plastics, Inc.
f. National Diversified Sales, Inc.
g. Pepco Water Conservation Products, Inc.
h. Quazite Div., Morrision Molded Fiber glass Co.

8. Quick Couplers:
a. Buckner, Inc.
b. Champion Irrigation Products.
c. Lawnlife by Ceres Products Corp.
d. Nelson: L.R. Nelson Corp.
e. Rain Bird Sprinkler Mfg. Corp.
f. Toro Co.; Irrigation Div.
g. Weather-matic Sprinkler Div., Telsco Industries.

9. Sprinklers:
a. Buckner, Inc.
b. Champion Irrigation Products.
c. Hardie: James Hardie Irrigation, Inc.; Landscape Div.
d. Hit Products Corp.
e. Hunter Industries.
f. Lawnlife by Ceres Products Corp.
g. Nelson: L.R. Nelson Corp.
h. Rain Bird Sprinkler Mfg. Corp.
i. Richdel by James Hardie Irrigation, Inc. Landscape Div.
j. Senninger Irrigation, Inc.
k. Toro Co.; Irrigation Div.
l. Weather-Matic Sprinkler Div., Telsco Industries.

10. Pressure Regulators:
a. Bermad, Inc.
b. Cashco, Inc.
c. Cla-Val Co.
d. Conbraco Industries, Inc.
e. FLOMATIC Corp.
f. GA Industries, Inc.
g. Honeywell Braukmann.
h. IMI Cash Valve, Inc.
i. Watts Industries, Inc.; Water Products Div.
j. Zurn Industries, Inc.; Wilkins Div.

11. Emitter and Drip-Tube Specialties:
a. Agrifim Irrigation Products, Inc.
b. Buckner, Inc.
c. Hardie: James Hardie Irrigation, Inc.; Landscape Div.
d. Hit Products Corp.
e. Olson Irrigation Systems.
f. Pepco Water Conservation Products, Inc.
g. Rain Bird Sprinkler Mfg. Corp.
h. Raindrip, Inc.
i. Salco Products, Inc.
j. Tornado by Plastro Irrigation, Inc.
k. Toro Co.; Irrigation Div.
l. Weather-matic Springkler Div., Telsco Industries

12. Controllers:
a. Buckner, Inc.
b. Champion Irrigation Products.
c. Dayni controls Manufacturing Co.
d. Hardie: James Hardie Irrigation, Inc.; Landscape Div.
e. Hydro-Electronics, Inc.
f. Irritrol by James Hardie Irrigation, Inc., Landscaper Div.
g. Nelson: L.R. Nelson Corp.
h. Oasis by Hit Products Corp.
i. Rain Bird Sprinkler Mfg. Corp.
j. Richdel by James Hardie Irrigation, Inc., Landscape Div.
k. Superior Controls Co., Inc.
l. Toro Co.; Irrigation Div.
m. Valcon by Automatic Irrigation Equipment Co.
n. WaterSaver by EMC/Hirsch, Inc.
o. Weather-matic Sprinkler Div., Telsco Industries

13. Backflow Preventers
a. Ames Co., Inc.
b. Buckner, Inc.
c. Cash by A.W. Cash Valve MFG. Corp.
d. Cla-Val Co.
e. Conbraco Industries, Inc.
f. Febco.
g. Hersey Products, Inc., Grinnell Corp.
h. Rain Bird Sprinkler Mfg. Corp.
i. Sparco, Inc.
j. Watts Regulator co.
k. Wilkins regulator Div., Zurn Industries, Inc.

14. Pressure Regulators
a. Bermad
b. A.W. Cash Valve Mfg. Corp.
c. Cla-Val Co.
d. Conbraco Industries, Inc.
e. G.A. Industries, Inc.
f. Honeywell Braukmann.
g. O.C. Keckley Co.
h. Spence Engineering Co., Inc.
i. Watts regulator co.
j. Wilkins Regulator Div., Zurn Industries, Inc.

2.2 PIPES

A. PVC Pipe: ASTM D 1785, PVC 1120 compound, Schedules 80 250 psig (1725 kPa) minimum pressure rating for 8-inch (200-mm) and smaller sizes, with plain and threaded ends.

B. PVC Pressure-Rated Pipe: ASTM D 2241; PVC 1120 compound; SDRs 21, 200 psig (1380 kPa) minimum pressure rating, with plain ends.

2.3 PIPE FITTINGS

A. Polyvinyl Chloride (PVC) Plastic Pipe Fittings: ASTM D 2467, Schedule 80, socket-type.

2.4 JOINING MATERIALS

A. Solvent Cement: ASTM F 656 primer and ASTM D 2564 solvent cement in color other than orange.

2.5 BACKFLOW PREVENTERS (Provided by Utility contractor)

B. Description: ASSE Standard backflow preventers, of size indicated for maximum flow rate and maximum pressure loss indicated.

1. Working Pressure" 150 psig (1035 kPa) minimum except where otherwise indicated.
2. 2-inches (DN 50) and Smaller: Bronze body with threaded ends.
3. 2 ½ -inches (DN 65) and Larger: Bronze, cast-iron steel, or stainless steel body with flanged ends.
a. Interior Protective Coating: AWWA C550, epoxy coating for backflow preventers with cast-iron or steel body.
4. Interior components: Corrosion-resistant materials.
5. Strainer supplied with and compatible for size and capacity with unity, on inlet, where strainer is indicated.

B. Hose connection Vacuum Breakers: ASSE 1011, nickel-plated, with nonremovable and manual drain features, and ASME B1.20.7 garden-hose threads on outlet. Units attached to rough-bronze hose connections may be rough bronze.

C. Reduced-Pressure-Principle Backflow Preventer: ASSE 1013, with (OS&Y) gate valves on inlet and outlet and strainer on inlet. Include test cocks and pressure-differential relief valve with ASME A112.1.2 air-gap fitting located between 2 positive-seating check valves for continuous pressure application.

1. Pressure Loss: 15 psig (103 kPa) maximum, through middle third of flow range.
2. Gate valves supplied with and comparable for size and testing of unit on inlet and outlet. Valves 2-inches (DN 50) and smaller may be ball valves if these are unit manufacturer's standard valve for this application.
3. Test Kit: Unit manufacturer supplied, complete calibrated backflow preventer testing equipment kit with carrying case.

D. Double-Check Backflow Prevention Assemblies: ASSE 1015, with shutoff valves on inlet and outlet and strainer on inlet. Include test cocks with 2 positive-seating check valves for continuous pressure application.

1. Pressure Loss: 12 psig (83 kPa) maximum, through middle third of flow range.
2. Gate valves supplied with and compatible for size and testing of unit on inlet and outlet. Valves 2-inches (DN 50) and smaller may be ball valves if these are unit manufacturer's standard valve for this application.
3. Test Kit: Unit manufacturer supplied, complete calibrated backflow preventer testing equipment kit with carrying case.

E. Antisiphon, Pressure-Type Vacuum Breakers: ASSE 1020, with valves, spring-loaded check valve, and spring-loaded floating disc. Included test cocks and atmospheric vent for continuous pressure application

1. Pressure Loss: 6 psig (41 kPa) maximum, through middle third of flow range.
2. Gate valves supplied with and compatible for size and testing of unit on inlet and outlet. Valves 2-inches (DN 50) and smaller may be ball valves if these are unity manufacture's standard valve for this application.
3. Test Kit: Unit manufacturer supplied, complete calibrated backflow preventer testing equipment kit with carrying case.

2.6 PRESSURE REGULATORS

A. Description: ASSE 1003, single-seated, direct-operated type water pressure regulators, rated for initial working pressure of 150 psig minimum, with size, flow rate, and inlet and outlet pressures indicated. Include integral factory-installed or separate field-installed y-pattern strainer that is compatible with unit for size and capacity.

1. 2-inches (DN 50) and Smaller: Bronze body with threaded ends.
2. 2 ½-inch (DN 65) and Larger: Bronze of cast-iron body with flanged ends.
a. Interior Protective Coating: AWWA C550, epoxy coating, for regulators with a cast-iron body.
b. Interior components: Corrosion resistant materials.

2.7 VALVES

A. Nonrising Stem Gate Valves 3-inches (DN 80) or Larger: AWWA C500, cast-iron double disc, bronze disc, and seat rings or AWWA C509, resilient seated; bronze stem, cast-iron, or ductile-iron body and bonnet, stem nut, 200-psig (1380-kPa) working pressure; and ends that fit PVC pipe. Include elastomeric gaskets.

B. Cast-Iron, Nonrising-Stem Gate Valves, 2 ½-inches (DN 65) and Larger: MSS SP-70, Type I, solid wedge disc; nonrising stem and flanged ends. Include all bronze trim; Class 125, ASTM A 126, cast-iron body; and handwheel:

C. Bronze, Nonrising-Stem Gate Valves, 2 ½-inches (DN 50) and Smaller: MSS SP-80, Type 1, solid wedge; nonrising, copper-silicon-alloy stem; Class 125 body and screw bonnet of ASTM B 62 cast bronze, with threaded or solder-joint ends. Include polytetrafluorethylene (PTFE) -impregnated packing, brass packing gland, and malleable-iron handwheel: MSS SP-80, Type 1, solid wedge; nonrising, copper -silicon-alloy stem; Class 125, body and screw bonnet

D. Valve Boxes: Cast iron with top section and cover with lettering "WATER," bottom section with base to fit over valve, 5-inch- (127-mm) in diameter, and adjustable cast-iron extension of length required for depth of bury of valve.

1. Provide 1 steel tee-handle, shutoff rod with pointed end, stem of length to operate valve, and end fitting valve operating nut.
2. Provide 1 steel tee-handle shutoff rod with each service box. Include tee-handle, shutoff rod with one pointed end, stem of length to operate curb stop, and slotted end fitting curb stop head.

2.8 CONTROL VALVES

A. Description: Manufacturer's standard control valves for circuits, of type and size indicated and as follows:

1. Provide cast-bronze bodies, unless otherwise indicated.
2. Automatic Control Valves: Diaphragm-type, normally closed, with manual flow adjustment, and operated by 24-volt ac solenoid.
3. Quick-Couplers: Factory-fabricated, bronze or brass, two-piece assembly. Include coupler water-seal valve; removable upper body with spring -loaded or weighted, rubber-covered cap hose swivel with ASME B1.20.7, 3/4-11.5NH threads for garden hose on outlet; and operating key.
a. Locking Top Option: Include vandal-resistant, locking feature with two matching keys.

B. Control-Valve Boxes: PE, ABS, fiberglass, polymer concrete, or precast concrete box and cover,designed for installing flush with grade. Size as required for application.

2.9 SPRINKLERS

A. Description: Manufacturer's standard sprinklers designed for uniform coverage over entire spray area shown on drawings, at available water pressure.

1. Components: Brass or plastic housing and stainless steel corrosion -resistant interior parts.
2. Pop-up, Rotary, Spray Sprinklers: Gear drive, full-circle and adjustable part-circle types.

2.10 WATER HAMMER ARRESTERS

A. ASME A112.26.1M, ASSE 1010, or PDI WH-201 water hammer arrester. Include bellows or piston-type pressurized cushioning chamber and sizes omplying with ASME A112.26.1M and PDI WH-201 Sizes A to F.

c

2.11 PRESSURE GAGES

A. ASME B40.1 pressure gage. Include 4-1/2-inch- (115-mm-) diameter dial, dial range of two times system operating pressure, and bottom outlet.

2.12 AUTOMATIC CONTROL SYSTEM

A. Exterior Control Enclosures: Weatherproof enclosure with locking cover and two matching keys; Enclosure construction complies with NFPA 70 and NEMA 250, Type 4, and includes provision for grounding.

1. Material: Enameled-steel, sheet metal or molded plastic.
2. Mounting: Surface type for wall mounting to wall or post.

B. Interior Control Enclosures: Drip proof construction with locking cover and two matching keys.Enclosure construction complies with NFPA 70 and NEMA 250, Type 12.

1. Material: Enameled-steel, sheet metal or molded plastic.
2. Mounting: Surface type for wall mounting.

C. Transformer: Internal; and suitable for converting 120-V, ac building power to 24-V, ac power.

D. Controller Stations for Automatic Control Valves: Each station is variable from approximately 5 to 60 minutes. Include switch for manual or automatic operation of each station.

E. Timing Device: Adjustable, 24-hour, 14-day clock to operate any daytime of day. Include provision for the following settings:

1. Setting to skip operation any day in timer period.
2. Setting for operation every other day.
3. Settings for operation 2 or more times daily.
4. Provide Nickel-Cadmium Battery and Trickle Charge to automatically power timing device during power outages.

F. Wiring: UL 493, Type UF, solid-copper-conductor, insulated cable, suitable for direct burial. All wiring shall adhere to Local, State and Federal Codes.

1. Feeder-Circuit Cables: Type UF, No. 12 AWG minimum, between building and controllers.
2. Low-Voltage, Branch-Circuit Cables: No. 14 AWG minimum, between controllers and automatic control valves. jacket color is other than feeder-circuit-cable jacket color.
3. Splicing Materials: Pressure-sensitive, thermoplastic tape; waterproof sealing packets; or other waterproof connectors.

2.12 IDENTIFICATION

A. Refer to Division 2 Section 02200 "Excavation, Filling & Grading" for underground warning-tape materials.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Confirm available water supply water pressure and flow characteristics.

3.2 PREPARATION

A. Set stakes to identify proposed lawn sprinkler locations. Obtain designers approval before excavation.

3.3 EARTHWORK

A. Landscape Areas: Upon installation of the irrigation lines and components, the contractor shall compact each trench in one foot lifts using a fill material to a compaction of 95% standard proctor. The upper one foot shall be of an organic topsoil material. The fill material shall be level with the surrounding area. Under hard surface material: Use select fill or materials designated by the hard surface contractor for installation under asphalt and concrete surfaces. The fill material shall be installed at 100% standard proctor. All fill material shall be void of stones, roots of other foreign matter.

B. Excavation, trenching, and backfilling are specified in Division 2 02300 "Earthwork".

C. Underground location tape installation is specified in Division 2 Section 02300 "Earthwork".

3.4 PAVING WORK (NOT REQUIRED)

A. Cutting and patching of asphalt paving is specified in Division 2 Section 02511 "Hot-Mixed Asphalt Paving."

B. Install piping in sleeves where crossing sidewalks, roadways and parking lots.

1. Install piping sleeves by boring or jacking under existing site features, where possible.

3.5 PIPING APPLICATIONS

A. Refer to Part 2 of this Section for detailed specifications for pipe and fittings products listed below. Use pipe, tube, fittings, and joining methods according to the following applications. Piping in pits and aboveground may be joined with flanges instead of joints indicated.

B. Pressure Piping Aboveground: Use the following:

1. 4-Inch NPS (DN100) and Smaller: ASTM D 1785, Schedule 80 polyvinyl chloride (PVC) plastic pipe; ASTM D 2467 Schedule 80 PVC *socket fittings, and solvent-cemented joints.*
2. 5-Inch NPS (DN125) and Larger: ASTM D 1785, Schedule 80 polyvinyl chloride (PVC) plastic pipe; ASTM D 2467 Schedule 80 PVC socket fittings, and solvent-cemented joints.

C. Pressure Piping Underground: Use the following:

1. 3-Inch NPS (DN80) and Smaller: ASTM D 1785, Schedule 80 polyvinyl chloride (PVC) plastic pipe; ASTM D 2467 Schedule 80 PVC socket fittings, and solvent-cemented joints.
2. 4-Inch NPS (DN100) and Larger: ASTM D 1785, Schedule 80 polyvinyl chloride (PVC) plastic pipe; ASTM D 2467 Schedule 80 PVC socket fittings, and solvent-cemented joints.

D. Circuit Piping: Use the following:

1. All Sizes: ASTM D 1785, Schedule 80 polyvinyl chloride (PVC) plastic pipe; ASTM D 2467 Schedule 80 PVC socket fittings, and solvent -cemented joints.
2. All Sizes: ASTM D 2241, ADR 17 or 21 polyvinyl chloride (PVC) plastic pipe; ASTM D 2446 Schedule 40 PVC socket fittings, and solvent-cemented joints.

E. Branches and Offsets at Sprinklers and Devices: ASTM 1785, Schedule 80, polyvinyl chloride (PVC) plastic pipe with threaded ends; ASTM D 2464, Schedule 80, PVC plastic, threaded fittings; and threaded joints.

1. Option: Plastic piping made for this application may be used instead of pipe and fittings specified.

F. Drain Piping: ASTM D 2241. SDR 21 or 26 polyvinyl chloride (PVC) plastic pipe; ASTM D 2466 Schedule 40 PVC socket fittings; and solvent-cemented joints.

G. Sleeves: ASTM D 1785, Schedule 80 polyvinyl (PVC) plastic pipe; ASTM D 2467, Schedule 80 PVC socket fittings, and solvent-cemented joints.

3.6 JOINT CONSTRUCTION

A. Polyvinyl Chloride (PVC) Piping Solvent-Cemented Joints: Construct joints according to ASTM D 2672 and ASTM D 2855.

1. Handling of solvent Cements, Primers, and Cleaners: Comply with procedures in ASTM F 402 for safe handling when joining plastic pipe and fittings with solvent cements.

B. Dissimilar Materials Piping Joints: Construct joints using adapters that are compatible with both piping materials, outside diameters, and system working pressure. Refer to "Piping Systems - Common requirements" item for joining dissimilar metal piping.

3.7 PIPING SYSTEMS - COMMON REQUIREMENTS

A. General Locations and Arrangements: Drawings indicate general location and arrangement of piping systems, which were used to size pipe and calculate friction loss, and other design considerations. Install piping as indicated, unless deviations are approved on Coordination Drawings.

B. Install piping at uniform slope of 6-inches per 100 feet (1:200) minimum, down toward drain points.

C. Install components having pressure rating equal to or greater than system operating pressure.

D. Install piping free of sags and bends.

E. Locate groups of pipes parallel to each other, spaced to permit valve servicing.

F. Install fittings for changes in direction and branch connections.

G. Piping Connections: Except as otherwise indicated make piping connections as specified below.

1. Install unions in piping 2-inches (DN 50) and smaller, adjacent to each valve and at final connections to each piece of equipment having 2-inch (DN50) or smaller threaded pipe connection.
2. Install unions in piping 2 ½ inches (DN 65) and or larger, adjacent to each valve and at final connections to each piece of equipment having 2-inch (DN50) or smaller threaded pipe connection.
3. Install dielectric fittings to connect piping of dissimilar metals.

3.8 PIPING INSTALLATION

A. Install underground polyvinyl chloride (PVC) plastic pipe according to ASTM D 2774.

B. Lay piping on solid sub-base, uniformly sloped without humps or depressions.

1. Install polyvinyl chloride (PVC) plastic piping in dry weather when temperature is above 40 deg F (4.4 deg C). Allow joints to cure at least 24 hours at temperature above 40 deg F (4.4 deg C) before testing, unless otherwise recommended by manufacturer.

C. Minimum Cover: Provide following minimum cover over top of buried piping:

1. Pressure Piping: Greater depth of minimum of 36-inches below finished grade, or not less than 18-inches `below average local frost depth.
2. Circuit Piping: 24-inches (300 mm)
3. Drain Piping: 24-inches (300 mm)
4. Sleeves: 24-inches (600 mm)

D. Tunneling: Install pipe under streets or other obstructions that cannot be disturbed, by tunneling, boring, or jacking.

3.9 VALVE APPLICATIONS

A. Drawings indicate valve types to be used. Where specific valve types are not indicated, the following requirements apply:

1. Buried Valves 2-inches (DN 50) and Smaller: Bronze-body, curb stop, with tee head, service box and shutoff rod.
2. Pit and Aboveground Installation, Valves 2 ½-inches (DN 65) and Larger: MSS, nonrising stem, gate valves.
3. Pit and Aboveground Installation, Valves 2-inches (DN 50) and Smaller: MSS nonrising stem gate valves.

3.10 VALVE INSTALLATION

A. Valves: Install underground valves in valve boxes or pits.

1. Install valves and polyvinyl chloride (PVC) pipe with restrained, gasketed joints or thrust blocking.

B. Curb Stops: Install in service box with top flush with grade.

C. Control Valves: Install in valve control valve boxes, arranged for easy adjustment and removal. Install union on downstream side.

D. Drain Valves: Install in control-valve box.

3.11 BACKFLOW PREVENTER INSTALLATION (Provided by Utility Contractor)

A. Install backflow preventers of type, size, and capacity indicated. Include valves and test cocks. Install according to plumbing code and health department authorities with jurisdiction.

B. Install pressure-type vacuum breakers minimum of 12-inches (300 mm) above downstream piping system.

C. Do not install bypass around backflow preventer.

D. Do not install backflow preventers with drains or vents in pits or areas subject to flooding.

E. Support backflow preventers, valves, and piping on 3000-psi (20.7-Mpa) minimum, portland-cement-mixed concrete piers.

3.12 PRESSURE REGULATOR INSTALLATION

A. Install pressure regulators with shutoff valve and strainer on inlet and pressure gage on outlet. Install shutoff valve on outlet and valved bypass where indicated.

3.13 SPRINKLER INSTALLATION

A. Sprinklers: Flush circuit piping with full head of water and install sprinklers after hydrostatic test is completed.

B. Install lawn sprinklers at manufacturer's recommended heights.

C. Locate part-circle sprinklers to maintain a minimum distance of 4-inches from walls and 2 inches from other boundaries, unless otherwise indicated.

3.14 AUTOMATIC CONTROL SYSTEM INSTALLATION

A. Install controllers according to manufacturer's written instructions and as indicated.

B. Install freestanding controllers on 4" x 4" non-arsenic treated wood post. Where dimensions are not indicated, furnish bases not less than 12-inches by 12-inches thick, and not less than 6-inches greater in each direction than overall dimensions of controller.

C. Install control wiring in same trench with piping.

3.15 CONNECTIONS

A. Connect piping to valves, sprinklers, and specialties.

B. Connect water supplies to irrigation systems. Include backflow preverters on potable water supplies.

C. *Electrical Connections: Connect to power source,* controllers, and automatic control valves.

D. Minimum requirements for electrical installations are specified in Division 16.

1. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

E. Ground systems according to Division 16 Section "Grounding".

3.16 FIELD QUALITY CONTROL

A. Testing: Hydrostatically test piping and valves before backfilling trenches. Piping may be tested in sections to expedite work.

1. Cap and test piping with static water pressure of 50 psig (345 kPa) above system operating pressure and without exceeding pressure rating of piping system materials. Isolate test source and allow to stand for four hours. Leaks and loss in test pressure constitute defects in system that shall be repaired by contractor.
2. Repair leaks and defects with new materials and retest system or portion thereof until satisfactory results are obtained.

3.17 CLEANING AND ADJUSTING

A. Flush dirt and debris from piping before installing sprinklers and other devices.

B. Adjust automatic control valves to provide flow rate of rated operating pressure required for each sprinkler circuit.

C. Carefully adjust irrigation system sprinklers so they will be flush with, or not more than 1/2 inch (13 mm) above, finish grade.

D. Adjust settings of controllers and automatic control valves.

3.18 COMMISSIONING

A. Starting Procedures: Follow manufacturer's written procedures. If no procedures are prescribed by manufacturers, proceed as follows:

1. Verify that specialty valves and their accessories are installed and operate correctly.
2. Verify that specified tests of piping are complete.
3. Check that sprinklers and devices are correct type.
4. Check that damaged sprinklers and devices are replaced with new materials.
5. Check that potable-water supply connections have backflow preventers.
6. Energize circuits to electrical equipment and devices.
7. Adjust operating controls.

B. Operational Testing: Perform operation testing after hydrostatic testing is completed, backfill is in place, and sprinklers are adjusted to final position.

3.19 DEMONSTRATION

A. Demonstrate to Designer that system meets coverage requirements and that automatic controls function properly.

B. Demonstrate to Owner's maintenance personnel operation of equipment, sprinklers, specialties, and accessories. Review maintenance information.

C. Provide seven days' advance written notice of demonstration.

END OF SECTION 02813

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BID SET

Fayetteville Regional Airport - Airline Terminal Improvements Part 2

400 Airport Road
Fayetteville, North Carolina 28306

Technical Specifications

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REVIEWED BY: FDC
DATE: 6-20-19
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REVISIONS

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