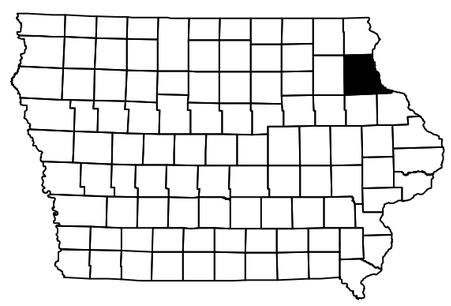
IOWA DEPARTMENT OF NATURAL RESOURCES

CONSTRUCTION DOCUMENTS
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

DNR PROJECT #21-03-22-01
IDOT PROJECT #SP-638-0(6)--7C-22

IOWA ONE CALL
1-800-292-8989 | 811
www.iowaonecall.com



LICENSED PROFESSIONAL ENGINEER
BRETT A. JOHNSON
13653
IOWA

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

Brett Johnson 1/12/2022
BRETT A. JOHNSON, IOWA REG. NO. 13653 DATE
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2023

PAGES OR SHEETS COVERED BY THIS SEAL:
SHEETS 1-100

DIRECTORY

PROJECT MANAGER		CONSTRUCTION INSPECTOR	
COMPANY	IOWA DEPT OF NATURAL RESOURCES	COMPANY	IOWA DEPT OF NATURAL RESOURCES
ADDRESS	502 EAST 9TH STREET	ADDRESS	956 E MAIN
CITY,STATE,ZIP	DES MOINES, IA 50319	CITY,STATE,ZIP	NEW HAMPTON, IA 50659
CONTACT	BRETT JOHNSON	CONTACT	MELVIN PACOVSKY
TELEPHONE	515-250-3711 (B), 515-778-6877 (P)	TELEPHONE	319-240-3553
FAX		FAX	
EMAIL	brett.johnson@dnr.iowa.gov	EMAIL	melvin.pacovsky@dnr.iowa.gov

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF REMOVAL OF THE EXISTING ASPHALT ROADS, CAMPGROUND CAMP PADS, ELECTRIC SERVICE LINES, DISPOSAL STATION AND ANY REMAINING TREES AND VEGETATION WITHIN THE WORK ZONE AND INSTALLING A NEW PORTLAND CEMENT CONCRETE ROADWAY, NEW GRAVEL CAMP PADS, ELECTRIC SERVICES, WATER SERVICES, SANITARY SEWER SERVICES, INSTALLING 2 NEW DISPOSAL STATIONS AND SEEDING AND MULCHING ALL DISTURBED AREAS LOCATED AT PIKES PEAK STATE PARK IN CLAYTON COUNTY, IOWA.

AUTHORIZATION TO BID

Nick Dellaca Digitally signed by Nick Dellaca Date: 2022.01.12 08:01:40 -06'00'
AUTHORIZATION • PARKS | WILDLIFE | FISHERIES | LAW ENFORCEMENT | FORESTRY DATE

Travis Baker Digitally signed by Travis Baker Date: 2022.01.12 11:02:40 -06'00'
ENGINEERING BUREAU CHIEF DATE

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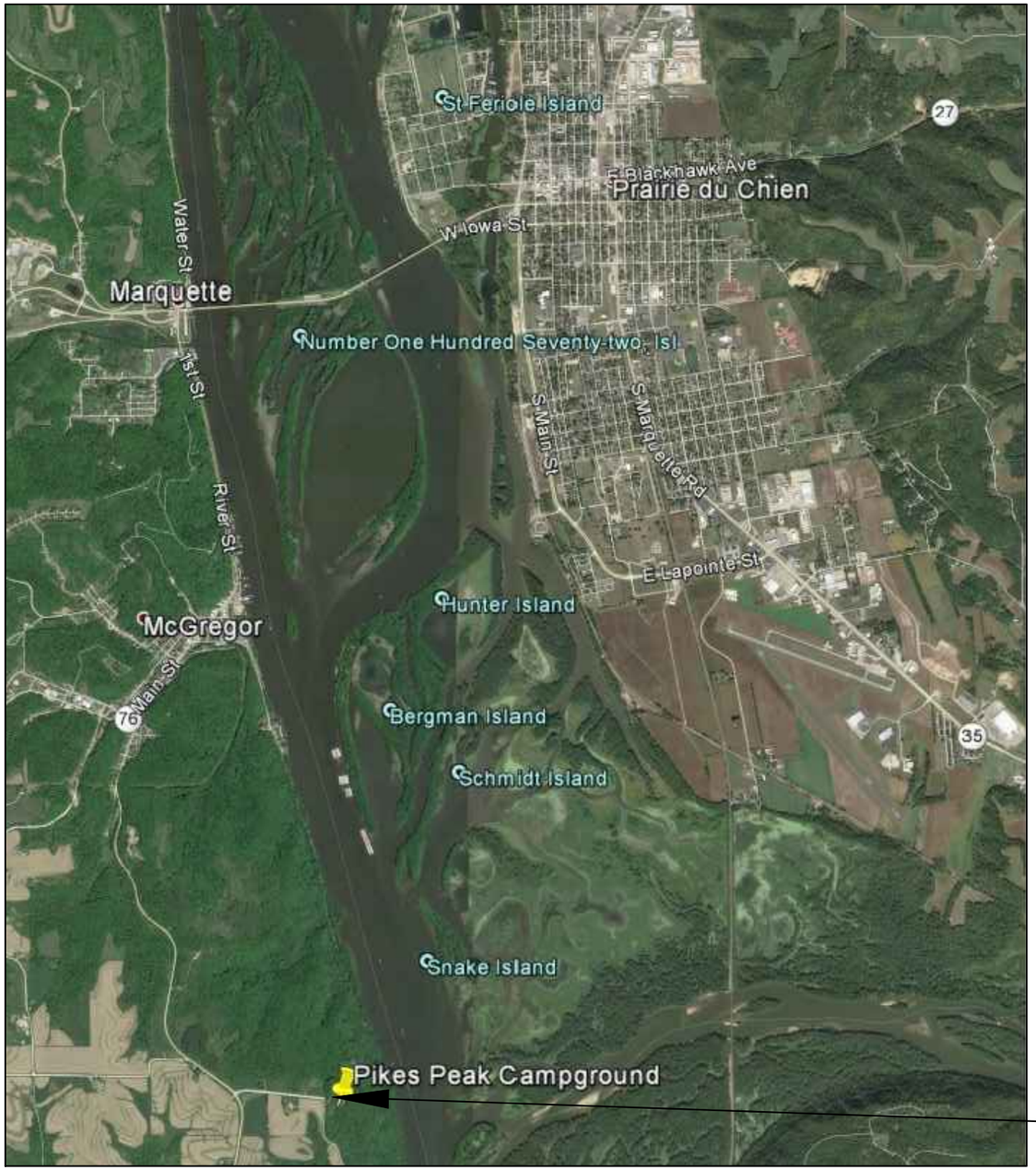
CONSULTANT:

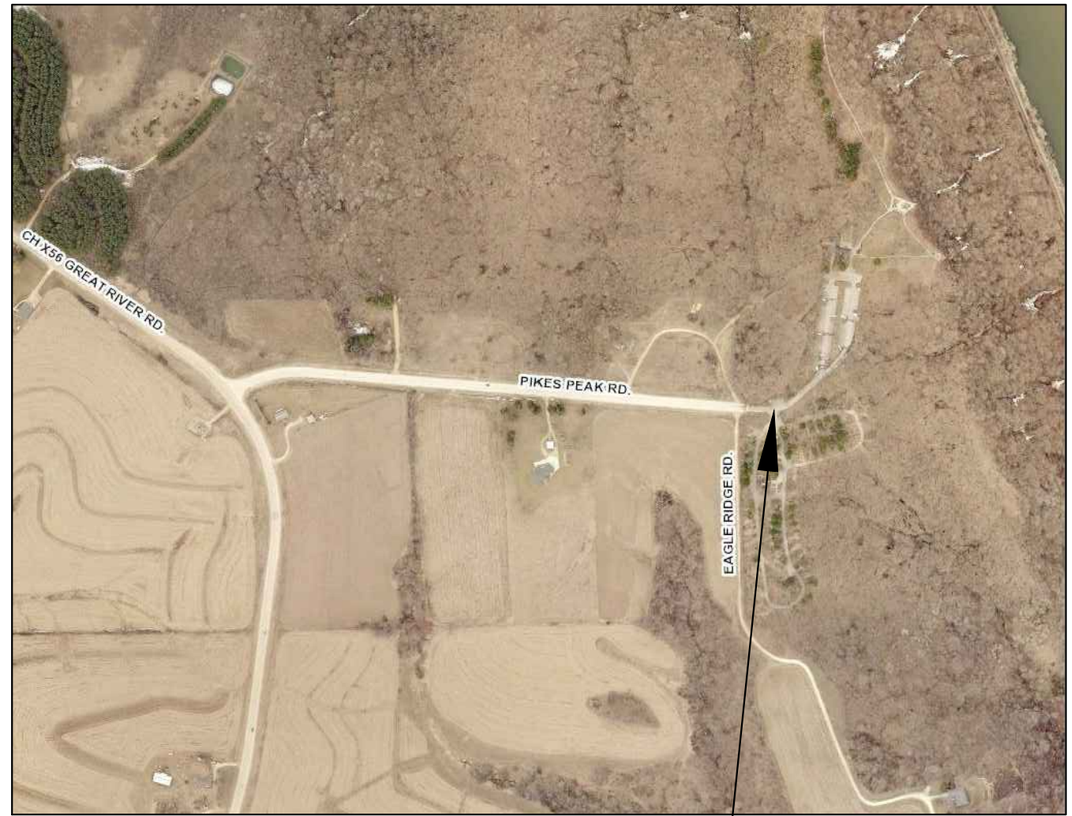
IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

COVER SHEET
CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 1





PROJECT LOCATION

PROJECT LOCATION:
32264 PIKES PEAK ROAD
MCGREGOR, IA 52157-8558
COORDINATES: 42°59′41.30″N (42.99481°), 91°09′57.41″W (91.165947°)

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

VICINITY MAPS

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY: DATE:	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 2

ESTIMATED PROJECT QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY	NON-P&I	P&I
1	CLEARING AND GRUBBING	LS	1	0	1
2	TREE CLEARING/STUMP GRINDING	LS	1	0	1
3	FULL DEPTH SAW CUT	LF	325	0	325
4	HMA PAVEMENT REMOVAL	SY	12,800	0	12,800
5	PCC REMOVAL	SY	529.4	0	529.4
6	GRADING	LS	1	0	1
7	12-INCH FILTER SOCK	LF	3,160	0	3,160
8	SANITARY SEWER CONNECTIONS TO EXISTING MANHOLE	EA	2	2	0
9	TYPE SW-301 48" DIAMETER SANITARY MANHOLE W/TYPE 'A' CASTING	EA	1	1	0
10	6-INCH SANITARY SEWER (PVC SDR 23.5)	LF	228	228	0
11	4-INCH SANITARY SEWER SERVICE (PVC SDR 23.5)	LF	242	242	0
12	DISPOSAL STATION RV CLEANOUT CONNECTION	EA	2	2	0
13	RV SANITARY SEWER CLEANOUT CONNECTION	EA	6	6	0
14	6"x4" PVC SCHEDULE 40 SERVICE WYE	EA	6	6	0
15	2"x2"x2"x2" HDPE CROSS	EA	1	1	0
16	1-INCH HDPE PIPE	LF	1,128	1,128	0
17	2-INCH HDPE PIPE	LF	1,195	1,195	0
18	2-INCH VALVE	EA	3	3	0
19	WOODFORD MODEL S-3 SANITARY YARD HYDRANT W/DRAIN DOWN PIT (OR APPROVED EQUAL)	EA	16	16	0
20	WOODFORD MODEL S-3 SANITARY YARD HYDRANT W/O DRAIN DOWN PIT (OR APPROVED EQUAL)	EA	2	2	0
21	WOODFORD MODEL S-4H SANITARY YARD HYDRANT W/DRAIN DOWN PIT (OR APPROVED EQUAL)	EA	2	2	0
22	WOODFORD MODEL S-4H SANITARY YARD HYDRANT W/O DRAIN DOWN PIT (OR APPROVED EQUAL)	EA	2	2	0
23	1"x1"x1" HDPE TEE	EA	2	2	0
24	2"x2"x1" HDPE TEE	EA	14	14	0
25	2"x2"x2" HDPE TEE	EA	3	3	0
26	2"x1" HDPE REDUCER	EA	5	5	0
27	WELLXTROL MODEL WX-452C PRESSURE TANK (OR APPROVED EQUAL)	EA	2	2	0
28	PRESSURE TANK INSTALLATION AND REMOVAL OF 2 OLD TANKS	EA	1	1	0
29	WATER CONNECTION	EA	2	2	0
30	DISINFECTION	LS	1	1	0
31	TYPE SW-512 CIRCULAR AREA INTAKE W/SW-604 TYPE 3A CASTING	EA	8	0	8
32	TYPE SW-513 OPEN SIDED INTAKE W/SW-602 TYPE G CASTING	EA	4	0	4
33	12-INCH RCP CLASS III	LF	505.7	0	505.7
34	15-INCH RCP CLASS III	LF	415.4	0	415.4
35	12-INCH RCP CLASS III FES	EA	1	0	1
36	15-INCH RCP CLASS III FES	EA	1	0	1
37	CLASS 'D' RIPRAP	TONS	100	0	100

GENERAL NOTES

1. TWO WEEKS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY:
   A. IOWA DNR PROJECT MANAGER: BRETT JOHNSON 515-250-3711 (BUS CELL); 515-778-6877 (PERSONAL CELL, SEE NOTE)
      NOTE: BUSINESS CELL WILL BE UNAVAILABLE 1/26/22-2/16/22, CALL PERSONAL CELL WITH ANY QUESTIONS.
   B. DISTRICT INSPECTOR: MELVIN PACOVSKY 319-240-3553
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH STATEWIDE URBAN STANDARD DESIGN SPECIFICATIONS FOR PUBLIC IMPROVEMENTS (SUDAS). ALL CONSTRUCTION TESTING TO BE IN ACCORDANCE WITH SUDAS AND IS THE EXPENSE OF THE CONTRACTORS.
3. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF CONSTRUCTION AND NOTIFY THE ABOVE MENTIONED CONTACTS OF ANY DISCREPANCIES.
4. THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING FACILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION WITHOUT UNCOVERING AND MEASURING. THE ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL PUBLIC AND/OR PRIVATE UTILITIES SERVING THE AREA TO DETERMINE THE PRESENT EXTENT AND LOCATION OF THEIR FACILITIES BEFORE BEGINNING WORK.
5. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROPER UTILITY IMMEDIATELY UPON BREAKING OR DAMAGE TO ANY UTILITY LINE OR APPURTENANCE, OR THE INTERRUPTION OF THEIR SERVICE. HE SHALL NOTIFY THE PROPER UTILITY INVOLVED. IF EXISTING UTILITY LINES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED.
6. CONTRACTOR TO PROTECT ALL UTILITY, PAVING, BUILDINGS, ETC. OUTSIDE OF LIMITS OF PROPOSED CONSTRUCTION.
7. IN THE EVENT THAT THERE IS A DISCREPANCY BETWEEN THE QUANTITIES AND THE PLANS, THE DETAILED PLANS SHALL GOVERN.
8. MAINTAIN ALL CUT AND FILL AREAS TO ACCOMMODATE SURFACE DRAINAGE.
9. FINISHED GRADE ON ALL AREAS SHALL BE WITHIN 0.20 FOOT OF PLAN GRADE.
10. TOPSOIL SHALL BE SPREAD TO A MINIMUM THICKNESS OF 4-INCHES ON ALL DISTURBED UNPAVED AREAS ADJACENT TO PAVEMENT.
11. BACKFILL TO THE TOP OF ALL ROCK AND PAVEMENT SURFACES.
12. ALL ELEVATIONS ARE TO FINISH GRADE.
13. PROTECT ALL EXISTING TREES AND VEGETATION UNLESS OTHERWISE NOTED.
14 AN NPDES GENERAL PERMIT #2 WILL BE REQUIRED AS THE PROJECT IS DISTURBING 9.5 ACRES.
15. EARTHWORK QUANTITY IS ROUGHLY 8,000 CY, AND IS ROUGHLY BALANCED.
16. CONTRACTOR SHALL HYDRAULICALLY SEED ALL DISTURBED AREAS (APPROXIMATELY 5.0 ACRES). USE TYPE 1 (PERMANENT LAWN MIXTURE) SEED MIX AROUND THE SHOWER BUILDING, AND ALONG ROADWAYS (APPROXIMATELY 1.0 ACRE). USE TYPE 3 (PERMANENT WARM-SEASON SLOPE AND DITCH MIXTURE) IN ALL OTHER AREAS INCLUDING ALL 3:1 SLOPES (APPROXIMATELY 4.0 ACRES) IN ACCORDANCE WITH SUDAS SECTION 9010.
17. AN ARCHEOLOGICAL INSPECTION OF THE PARKING LOT AREA NEEDS TO OCCUR DURING AND AFTER THE PAVEMENT REMOVAL TO LOOK FOR ANY POTENTIAL CULTURAL DEPOSITS. A MONITOR WILL BE ON SITE WHEN THE EXISTING PARKING LOT AREA IS REMOVED DURING THE DEMOLITION PHASE TO INVESTIGATE THE SITE FOR ANY EVIDENCE OF POTENTIAL ARCHEOLOGICAL ITEMS. COORDINATE THIS ACTIVITY WITH THE DNR INSPECTOR. IF THE CONTRACTOR OR MONITOR UNCOVERS ANY ARCHEOLOGICAL ITEMS DURING CONSTRUCTION, THE CONTRACTOR SHALL STOP WORK IN THAT AREA IMMEDIATELY AND NOTIFY THE DNR INSPECTOR SO THAT HE CAN CONTACT THE APPROPRIATE AGENCY FOR AN ARCHEOLOGICAL INSPECTION OF THE AREA. IF THIS WERE TO OCCUR THE AREA IN QUESTION MAY BE SHUT DOWN FOR A WEEK OR SO UNTIL THE INSPECTION IS COMPLETE. THE CONTRACTOR NEEDS TO LET THE DNR INSPECTOR KNOW 30 DAYS IN ADVANCE FOR WHEN THE PARKING LOT AREA IS GOING TO BE REMOVED FOR THE PURPOSE OF SCHEDULING THE MONITOR TO BE PRESENT.
18. THE 7-INCH NYLON REINFORCED PCC HAS 5 LBS (MINIMUM) OF MACRO-SYNTHETIC FIBER PER CUBIC YARD IN THE MIX. THE CONTRACTOR MAY WANT TO DO A TEST POUR TO ENSURE FIBERS ARE PROPERLY MIXED AND NO 'BALLING' OF FIBERS OCCUR.
19. A FIBER OPTIC COMMUNICATION LINE NEEDS TO BE INSTALLED TO THE CHECK-IN KIOSK PRIOR TO THE PAVEMENT CONSTRUCTION. CONTRACTOR TO COORDINATE THIS FIBER OPTIC LINE CONSTRUCTION WITH ALPINE COMMUNICATIONS LOCATED IN ELKADER, IA PHONE: 563-245-4000.
20. TOTAL COST ESTIMATE FOR THE FUNDING OF THE PROJECT IS $1,827,200.70 OF WHICH $739,122.70 IS NON-P&I ITEMS AND $1,088,078.00 IS P&I ITEMS.

ESTIMATE REFERENCE INFORMATION

ITEM NO.	
1	CLEARING AND GRUBBING - CONTRACTOR TO CLEAR AND GRUB THE PROJECT SITE CONSISTING OF, BUT NOT LIMITED TO: OUTLET POSTS (SALVAGE AND GIVE TO INSPECTOR/PARK STAFF), CAMPPAD GRAVEL, CAMPPAD TIMBER RETAINING WALLS, FIRE RINGS, EXISTING SIGNAGE, CULVERT, AS DETAILED ON SHEETS #6-12.
2	TREE CLEARING/STUMP GRINDING - CONTRACTOR TO CLEAR APPROXIMATELY 222 INDIVIDUAL TREE STUMPS AND BRUSH PILES ALONG WITH ALL ADDITIONAL TREES DESIGNATED ON SHEETS #6-12, INSPECTOR MAY REQUIRE ADDITIONAL TREES REMOVED IF THEY ARE IN CONFLICT WITH CONSTRUCTION ACTIVITIES.
3	FULL DEPTH SAW CUT - CONTRACTOR SHALL SAW CUT EXISTING PAVEMENTS FULL DEPTH IN THE LOCATIONS SHOWN ON SHEETS #6-12.
4	HMA REMOVAL - CONTRACTOR SHALL REMOVE THE EXISTING HMA CAMPGROUND ROADS AS DETAILED ON SHEETS #6-12. THE SURFACE HMA ROADS ARE ASSUMED TO BE AN AVERAGE OF 5-INCHES OF THICKNESS (2,557 TONS) AND THE ORIGINAL ENTRANCE ROAD WHICH IS UNDER THE EXISTING ROAD MAY YIELD APPROXIMATELY 680 TONS. MAY USE CRUSHED HMA AS SPECIAL BACKFILL.
5	PCC REMOVAL - CONTRACTOR SHALL REMOVE THE EXISTING PCC AS DETAILED ON SHEETS #6-12. CONTRACTOR CAN PLACE REMOVED PCC IN RIPRAP LOCATIONS AS DETAILED ON SHEETS #21 & 22. REMOVED PCC CANNOT HAVE ANY EXPOSED REBAR.
6	GRADING - CONTRACTOR SHALL GRADE THE SITE (APPROXIMATELY 8,000 CY) AS DETAILED ON SHEETS #37-45. TOPSOIL TO BE STRIPPED AND STOCKPILED AND RESPREAD TO A MINIMUM DEPTH OF 4-INCHES. EXISTING CAMP PAD GRAVEL MATERIAL CAN BE USED AS BASE FILL MATERIAL BELOW NEW CAMP PAD LOCATIONS AND IN DEEPER FILL LOCATIONS. ANY EXCESS CUT CAN BE WASTED OVER THE SITE AND IN DESIGNATED AREAS SHOWN ON THE PLANS AS DETAILED ON SHEETS #42 & 43.
7	12-INCH FILTER SOCK - CONTRACTOR TO INSTALL FILTER SOCK AS DETAILED ON SHEETS #37-45.
8	SANITARY SEWER CONNECTIONS TO EXISTING STRUCTURES - INSTALL SANITARY SEWER CONNECTIONS AS DETAILED ON SHEET #13.
9	TYPE SW-301 48" DIAMETER MANHOLE WITH TYPE 'A' CASTING - AS DETAILED ON SHEETS #13.
10	6-INCH SANITARY SEWER (PVC SDR 23.5) - INSTALL 6-INCH SANITARY SEWER WITH LOCATOR TAPE AS DETAILED ON SHEET #13.
11	4-INCH SANITARY SEWER SERVICE (PVC SDR 23.5) - INSTALL 4-INCH SANITARY SEWER SERVICE WITH LOCATOR TAPE AS DETAILED ON SHEET #13.
12	DISPOSAL STATION RV CLEANOUT CONNECTION - CONTRACTOR SHALL INSTALL DISPOSAL STATION RV CLEANOUT CONNECTION AS DETAILED ON SHEETS #13-14.
13	RV SANITARY SEWER CLEANOUT CONNECTION - CONTRACTOR SHALL INSTALL RV SANITARY SEWER CONNECTIONS FOR THE CAMPPADS AS DETAILED ON SHEETS #13-14.
14	6x4 PVC SCHEDULE 40 SERVICE WYE - CONTRACTOR SHALL INSTALL WYES AS SHOWN ON SHEETS #13-14.
15	2"x2"x2"x2" HDPE CROSS - CONTRACTOR SHALL INSTALL 2"x2"x2"x2" HDPE CROSS AS DETAILED ON SHEETS #17-19.
16	1-INCH HDPE PIPE - CONTRACTOR SHALL INSTALL 1-INCH HDPE WITH TRACER WIRE AS DETAILED ON SHEETS #17-19.
17	2-INCH HDPE PIPE - CONTRACTOR SHALL INSTALL 2-INCH HDPE WITH TRACER WIRE AS DETAILED ON SHEET #17-19.
18	2-INCH VALVE - CONTRACTOR SHALL INSTALL 2-INCH VALVE & CURB BOX (MUELLER #E-25142N OR SIMILAR) AS DETAILED ON SHEETS #17-19.
19	WOODFORD MODEL S-3 SANITARY YARD HYDRANT W/DRAIN DOWN PIT (OR APPROVED EQUAL) - CONTRACTOR TO INSTALL WOODFORD MODEL S-3 SANITARY YARD HYDRANT (INCLUDING CURB STOP, CONCRETE PAD, DRAIN ASSEMBLY, DRAIN PIT, ETC - SEE DETAIL ON SHEET #17) IN LOCATIONS SHOWN ON SHEETS #17-19.
20	WOODFORD MODEL S-3 SANITARY YARD HYDRANT W/O DRAIN DOWN PIT (OR APPROVED EQUAL) - CONTRACTOR TO INSTALL WOODFORD MODEL S-3 SANITARY YARD HYDRANT (INCLUDING CURB STOP AND BOX, ETC - SEE DETAIL ON SHEET #17) IN LOCATIONS SHOWN ON SHEETS #17-19.
21	WOODFORD MODEL S-4H ADA SANITARY YARD HYDRANT W/DRAIN DOWN PIT (OR APPROVED EQUAL) - CONTRACTOR TO INSTALL WOODFORD MODEL S-3 SANITARY YARD HYDRANT (INCLUDING CURB STOP, CONCRETE PAD, DRAIN ASSEMBLY, DRAIN PIT, ETC - SEE DETAIL ON SHEET #17) IN LOCATIONS SHOWN ON SHEETS #17-19.
22	WOODFORD MODEL S-4H ADA SANITARY YARD HYDRANT W/O DRAIN DOWN PIT (OR APPROVED EQUAL) - CONTRACTOR TO INSTALL WOODFORD MODEL S-3 SANITARY YARD HYDRANT (INCLUDING CURB STOP AND BOX, ETC - SEE DETAIL ON SHEET #17) IN LOCATIONS SHOWN ON SHEETS #17-19.
23	1"x1"x1" HDPE TEE - CONTRACTOR SHALL INSTALL 1"x1"x1" HDPE TEE AS DETAILED ON SHEETS #17-19.
24	2"x2"x1" HDPE TEE - CONTRACTOR SHALL INSTALL 2"x2"x1" HDPE TEE AS DETAILED ON SHEETS #17-19.
25	2"x2"x2" HDPE TEE - CONTRACTOR SHALL INSTALL 2"x2"x2" HDPE TEE AS DETAILED ON SHEETS #17-19.
26	2"x1" HDPE REDUCER - CONTRACTOR SHALL INSTALL 2"x1" HDPE REDUCER AS DETAILED ON SHEETS #17-19.
27	WELLXTROL MODEL WX-452C PRESSURE TANK (OR APPROVED EQUAL) - CONTRACTOR SHALL INSTALL WELLXTROL MODEL WX-452C PRESSURE TANK AS DETAILED ON SHEET #16.
28	PRESSURE TANK INSTALLATION AND REMOVAL OF 2 OLD TANKS - CONTRACTOR SHALL INSTALL AND REMOVE PRESSURE TANKS AS DETAILED ON SHEET #16.
29	WATER CONNECTION - CONTRACTOR TO CONNECT TO EXISTING WATER LINES AS DETAILED ON SHEETS #17-19.
30	DISINFECTION - COST OF DISINFECTION OF THE WATER LINES IN ACCORDANCE TO SUDAS.
31	TYPE SW-512 CIRCULAR AREA INTAKE W/SW-604 TYPE 3A CASTING - CONTRACTOR TO INSTALL TYPE SW-512 CIRCULAR AREA INTAKE W/SW-604 TYPE 3A CASTING AS SHOWN ON SHEET #21.
32	TYPE SW-513 OPEN SIDED AREA INTAKE W/SW-602 TYPE G CASTING - CONTRACTOR TO INSTALL TYPE SW-513 OPEN SIDED AREA INTAKE W/SW-602 TYPE G CASTING AS SHOWN ON SHEET #22.
33	12-INCH RCP CLASS III - CONTRACTOR TO INSTALL 12-INCH RCP CLASS III AS SHOWN ON SHEETS #20-22.
34	15-INCH RCP CLASS III - CONTRACTOR TO INSTALL 15-INCH RCP CLASS III AS SHOWN ON SHEETS #20-22.
35	12-INCH RCP CLASS III FES - CONTRACTOR TO INSTALL 12-INCH RCP CLASS III FES AS SHOWN ON SHEET #21.
36	15-INCH RCP CLASS III FES - CONTRACTOR TO INSTALL 15-INCH RCP CLASS III FES AS SHOWN ON SHEET #22.
37	CLASS 'D' RIPRAP - CONTRACTOR TO INSTALL CLASS 'D' RIPRAP IN AREAS SHOWN ON SHEETS #20-22.

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

QUANTITIES & GENERAL NOTES

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

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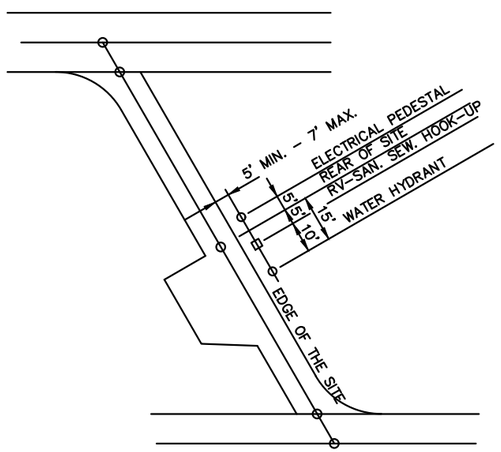
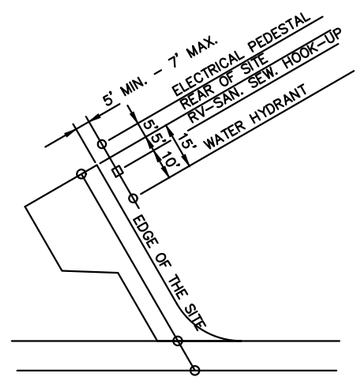
DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 3

ESTIMATED PROJECT QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY	NON-P&I	P&I
38	PRIMARY ELECTRIC SERVICE TO DISTRIBUTION PANELS	LS	1	1	0
39	SINGLE CAMPSITE OUTLET POST-30 AMP	EA	1	1	0
40	SINGLE CAMPSITE OUTLET POST-50 AMP	EA	60	60	0
41	NO. 2 AWG GROUNDING CONDUCTOR CABLE, TYPE THW OR USE	LF	4,359	4,359	0
42	NO. 4 AWG GROUNDING CONDUCTOR CABLE, TYPE THW OR USE	LF	822	822	0
43	NO. 350 MCM SINGLE CONDUCTOR CABLE, TYPE USE	LF	837	837	0
44	NO. 300 MCM SINGLE CONDUCTOR CABLE, TYPE USE	LF	1,386	1,386	0
45	NO. 250 MCM SINGLE CONDUCTOR CABLE, TYPE USE	LF	2,640	2,640	0
46	NO. 4/0 AWG SINGLE CONDUCTOR CABLE, TYPE USE	LF	8,214	8,214	0
47	NO. 3/0 AWG SINGLE CONDUCTOR CABLE, TYPE USE	LF	1,656	1,656	0
48	NO. 2/0 AWG SINGLE CONDUCTOR CABLE, TYPE USE	LF	810	810	0
49	ROADWAY CROSSING 3-INCH CONDUIT-SCHEDULE 80 PVC	LF	90	90	0
50	ROADWAY CROSSING 2.5-INCH CONDUIT-SCHEDULE 80 PVC	LF	290	290	0
51	ROADWAY CROSSING 2-INCH CONDUIT-SCHEDULE 80 PVC	LF	25	25	0
52	DETECTABLE WARNING TAPE, 3-INCH ELECTRIC	LF	4,116	4,116	0
53	TRENCH, SINGLE CIRCUIT SECONDARY	LF	4,521	4,521	0
54	200 AMP CIRCUIT BREAKER	EA	9	9	0
55	175 AMP CIRCUIT BREAKER	EA	1	1	0
56	150 AMP CIRCUIT BREAKER	EA	1	1	0
57	600 AMP DISTRIBUTION PANEL	EA	1	1	0
58	400 AMP DISTRIBUTION PANEL	EA	1	1	0
59	ELECTRICAL CONNECTION TO CHECK-IN KIOSK AND LED LIGHT	LS	1	1	0
60	SPECIAL BACKFILL/GRANULAR BASE	TONS	4,658.3	1,056.2	3,602.1
61	6-INCH NON-REINFORCED PCC	SY	3,625.3	3,431.2	194.1
62	7-INCH NYLON REINFORCED PCC	SY	10,747.3	0	10,747.3
63	DISPOSAL STATION ISLAND PAVEMENT	EA	2	0	2
64	GRANULAR BASE-SIDEWALKS	TONS	32.1	32.1	0
65	5-INCH NON-REINFORCED PCC SIDEWALKS	SY	160.4	160.4	0
66	ENGINEERING FABRIC	SY	7,770	7,770	0
67	MACADAM STONE	TONS	1,515	1,515	0
68	CLASS 'A' CRUSHED STONE	TONS	1,129	1,129	0
69	4'x4'x5.5" REINFORCED PCC FIRE RING	EA	60	60	0
70	TRAFFIC CONTROL	EA	1	0	1
71	SEEDING, FERTILIZING AND MULCHING	AC	5	0	5
72	STREET SIGNAGE	LS	1	0	1
73	HANDICAP PARKING SIGNAGE	LS	1	1	0
74	STREET PAVEMENT MARKINGS	LS	1	0	1
75	PARKING SPACE PAVEMENT STRIPING, HANDICAP PARKING CROSS HATCH MARKINGS	LS	1	1	0
76	6' CONCRETE PARKING WHEEL STOPS	EA	27	27	0
77	8' CONCRETE PARKING WHEEL STOPS	EA	13	13	0
78	SNOW FENCE BARRIER W/ARCHEOLOGICAL AREA	LF	440	0	440
79	CONSTRUCTION SURVEY STAKING AND AS-BUILT SURVEY	EA	1	0	1
80	NPDES GENERAL PERMIT #2 & SWPPP	LS	1	0	1
81	MOBILIZATION	LS	1	0	1



SINGLE PULL THROUGH SITE
UTILITY LOCATIONS
FULL HOOK UPS
NOT TO SCALE



SINGLE BACK-IN SITE
UTILITY LOCATIONS
FULL HOOK UPS
NOT TO SCALE

ESTIMATE REFERENCE INFORMATION

ITEM NO.	
38	PRIMARY ELECTRIC SERVICE TO DISTRIBUTION PANELS - CONTRACTOR TO SUPPLY CT CABINETS (A 400 AMP AND A 600 AMP) AND ALL OTHER ITEMS AS DETAILED ON SHEET #23.
39	SINGLE CAMPSITE OUTLET POST 30 AMP - CONTRACTOR TO INSTALL 30-AMP OUTLET POST OR EXTERIOR MOUNTED CIRCUIT BOX FOR SERVICE TO THE CHECK-IN KIOSK AS DETAILED ON SHEET #26.
40	SINGLE CAMPSITE OUTLET POST 50 AMP - CONTRACTOR TO INSTALL 50-AMP OUTLET POSTS AS DETAILED ON SHEETS #23-36.
41	NO. 2 AWG GROUNDING CONDUCTOR CABLE, TYPE THW OR USE - CONTRACTOR TO INSTALL NO. 2 AWG GROUNDING CABLE AS DETAILED ON SHEETS #23-36.
42	NO. 4 AWG GROUNDING CONDUCTOR CABLE, TYPE THW OR USE - CONTRACTOR TO INSTALL NO. 4 AWG GROUNDING CABLE AS DETAILED ON SHEETS #23-36.
43	NO. 350 MCM SINGLE CONDUCTOR CABLE, TYPE USE - CONTRACTOR TO INSTALL NO. 350 MCM SINGLE CONDUCTOR CABLE AS DETAILED ON SHEETS #23-36.
44	NO. 300 MCM SINGLE CONDUCTOR CABLE, TYPE USE - CONTRACTOR TO INSTALL NO. 300 MCM SINGLE CONDUCTOR CABLE AS DETAILED ON SHEETS #23-36.
45	NO. 250 MCM SINGLE CONDUCTOR CABLE, TYPE USE - CONTRACTOR TO INSTALL NO. 250 MCM SINGLE CONDUCTOR CABLE AS DETAILED ON SHEETS #23-36.
46	NO. 4/0 AWG SINGLE CONDUCTOR CABLE, TYPE USE - CONTRACTOR TO INSTALL NO. 4/0 AWG SINGLE CONDUCTOR CABLE AS DETAILED ON SHEETS #23-36.
47	NO. 3/0 AWG SINGLE CONDUCTOR CABLE, TYPE USE - CONTRACTOR TO INSTALL NO. 3/0 AWG SINGLE CONDUCTOR CABLE AS DETAILED ON SHEETS #23-36.
48	NO. 2/0 AWG SINGLE CONDUCTOR CABLE, TYPE USE - CONTRACTOR TO INSTALL NO. 2/0 AWG SINGLE CONDUCTOR CABLE AS DETAILED ON SHEETS #23-36.
49	ROADWAY CROSSING 3-INCH CONDUIT-SCHEDULE 80 PVC - CONTRACTOR TO INSTALL CONDUIT FOR ROAD CROSSING AS DETAILED ON SHEETS #23-36.
50	ROADWAY CROSSING 2.5-INCH CONDUIT-SCHEDULE 80 PVC - CONTRACTOR TO INSTALL CONDUIT FOR ROAD CROSSING AS DETAILED ON SHEETS #23-36.
51	ROADWAY CROSSING 2-INCH CONDUIT-SCHEDULE 80 PVC - CONTRACTOR TO INSTALL CONDUIT FOR ROAD CROSSING AS DETAILED ON SHEETS #23-36.
52	DETECTABLE WARNING TAPE, 3-INCH ELECTRIC - CONTRACTOR TO INSTALL DETECTABLE WARNING TAPE, 3-INCH ELECTRIC AS DETAILED ON SHEETS #23-36.
53	TRENCH, SINGLE CIRCUIT SECONDARY - CONTRACTOR TO TRENCH FOR ELECTRIC CABLE LINES AS DETAILED ON SHEETS #23-36.
54	200 AMP CIRCUIT BREAKER - CONTRACTOR TO INSTALL 200 AMP BREAKERS INTO DISTRIBUTION PANELS AS DETAILED ON SHEETS #23-36.
55	175 AMP CIRCUIT BREAKER - CONTRACTOR TO INSTALL 200 AMP BREAKERS INTO DISTRIBUTION PANELS AS DETAILED ON SHEETS #23-36.
56	150 AMP CIRCUIT BREAKER - CONTRACTOR TO INSTALL 200 AMP BREAKERS INTO DISTRIBUTION PANELS AS DETAILED ON SHEETS #23-36.
57	600 AMP DISTRIBUTION PANEL - CONTRACTOR TO INSTALL 600 AMP DISTRIBUTION PANEL AS DETAILED ON SHEETS #23-36.
58	400 AMP DISTRIBUTION PANEL - CONTRACTOR TO INSTALL 400 AMP DISTRIBUTION PANEL AS DETAILED ON SHEETS #23-36.
59	ELECTRICAL CONNECTION TO CHECK-IN KIOSK AND LED LIGHT - CONTRACTOR TO INSTALL ELECTRICAL CONNECTION TO CHECK-IN KIOSK AND LED LIGHT AS DETAILED ON SHEET #26. CONTRACTOR TO INSTALL LITHONIA LIGHTING CNY LED CANOPY LIGHT (MODEL #CNY LED P1 40K MVOLT DDB M4, OR APPROVED EQUAL) WITH WOOD BLOCKING DUE TO PITCHED ROOF. INSTALL NEW METAL CONDUIT. LUMP SUM BID ITEM SHALL INCLUDE ANY NEW WIRING, CONDUITS, LED LIGHT, CONNECTIONS, ETC.
60	SPECIAL BACKFILL/GRANULAR BASE - CONTRACTOR SHALL INSTALL 6-INCH SPECIAL BACKFILL OR GRANULAR BASE FOR THE ROADWAY BASE & PCC PARKING AREAS IN ACCORDANCE WITH IDOT SECTION 4132. SPECIAL BACKFILL CAN BE CRUSHED HMA (HMA THAT WAS REMOVED IN BID ITEM #4) IN ACCORDANCE WITH IDOT 4132.04.
61	6-INCH NON-REINFORCED PCC - CONTRACTOR TO INSTALL 6-INCH NON-REINFORCED PCC FOR THE PARKING AREAS AND ADA AND HOST CAMPPADS AS SHOWN ON SHEETS #37-45 AND SHEETS #46-66.
62	7-INCH NYLON-REINFORCED PCC - CONTRACTOR TO INSTALL 7-INCH NYLON-REINFORCED PCC FOR THE ROADWAYS & PARKING DRIVE AISLES AS DETAILED IN THE PLANS ON SHEETS #46-66. MIX SHALL HAVE A MINIMUM OF 5 LBS OF MACRO-SYNTHETIC FIBER PER CUBIC YARD. USE SIKAFIBER ENDURO PRIME OR SIMILAR PRODUCT. FOLLOW MANUFACTURER RECOMMENDATIONS FOR MIXING/APPLICATION.
63	DISPOSAL STATION ISLAND PAVEMENT - CONTRACTOR SHALL INSTALL DISPOSAL STATION ISLANDS AS DETAILED ON SHEETS #59 AND #63.
64	GRANULAR BASE-SIDEWALKS - CONTRACTOR TO INSTALL 4-INCH GRANULAR BASE FOR PCC SIDEWALKS AS DETAILED IN THE PLANS.
65	5-INCH NON-REINFORCED PCC SIDEWALKS - CONTRACTOR TO INSTALL 5-INCH NON-REINFORCED PCC SIDEWALKS AS DETAILED IN THE PLANS.
66	ENGINEERING FABRIC - CONTRACTOR SHALL INSTALL ENGINEERING FABRIC, MIRAFI 600X OR APPROVED EQUAL, BELOW CAMP PADS AS LOCATED IN THE PLANS. FABRIC SHALL CONFORM TO IOWA DOT SPECIFICATION SECTION 4196.01.
67	MACADAM STONE - CONTRACTOR TO INSTALL 4-INCH DEPTH MACADAM STONE ON TOP OF ENGINEERING FABRIC IN CAMP PADS AS LOCATED IN THE PLANS. MATERIAL SHALL CONFORM TO IOWA DOT SPECIFICATION SECTION 4122.02.
68	CLASS 'A' CRUSHED STONE - CONTRACTOR TO INSTALL 2-INCHES OF CLASS 'A' CRUSHED STONE ON TOP OF MACADAM STONE IN CAMP PADS AS LOCATED IN THE PLANS. THIS QUANTITY INCLUDES AN ADDITIONAL 10% TO ALLOW FOR COMPACTION.
69	4'x4x5.5" PCC FIRE RING - CONTRACTOR TO INSTALL 4'x4'x5.5" PCC FIRE RINGS FOR EACH CAMP PAD. SEE DETAIL ON SHEET #73. COORDINATE LOCATIONS WITH THE DNR INSPECTOR.
70	TRAFFIC CONTROL - CONTRACTOR TO INSTALL TYPE III BARRICADES OR SOME OTHER KIND OF ROAD CLOSURE BARRIER AT THE ENTRANCE TO KEEP THE GENERAL PUBLIC FROM ENTERING THE CONSTRUCTION SITE.
71	SEEDING, FERTILIZING AND MULCHING - CONTRACTOR SHALL HYDRAULICALLY SEED ALL DISTURBED AREAS (APPROXIMATELY 5.0 ACRES). USE TYPE 1 (PERMANENT LAWN MIXTURE) SEED MIX AROUND THE SHOWER BUILDING, AND ALONG ROADWAYS (APPROXIMATELY 1.0 ACRE). USE TYPE 3 (PERMANENT WARM-SEASON SLOPE AND DITCH MIXTURE) IN ALL OTHER AREAS INCLUDING ALL 3:1 SLOPES (APPROXIMATELY 4.0 ACRES) IN ACCORDANCE WITH SUDAS SECTION 9010.
72	STREET SIGNAGE - CONTRACTOR TO INSTALL STREET SIGNAGE AS DETAILED IN THE PLANS.
73	HANDICAP PARKING SIGNAGE - CONTRACTOR TO INSTALL HANDICAP PARKING SIGNAGE AS DETAILED IN THE PLANS.
74	STREET PAVEMENT MARKINGS - CONTRACTOR TO INSTALL STREET PAVEMENT MARKINGS TO INCLUDE ℄ BROKEN YELLOW LINES, SOLID WHITE LANE LINES AND CROSS HATCH AREAS AS DETAILED IN THE PLANS.
75	PARKING SPACES PAVEMENT STRIPING, HANDICAP PARKING CROSS HATCH MARKINGS - CONTRACTOR TO INSTALL PARKING SPACES PAVEMENT STRIPING, HANDICAP PARKING CROSS HATCH MARKINGS AS DETAILED IN THE PLANS.
76	6' CONCRETE PARKING WHEEL STOPS - CONTRACTOR TO INSTALL 6' CONCRETE PARKING WHEEL STOPS AS DETAILED IN THE PLANS.
77	8' CONCRETE PARKING WHEEL STOPS - CONTRACTOR TO INSTALL 8' CONCRETE PARKING WHEEL STOPS AS DETAILED IN THE PLANS.
78	SNOW FENCE BARRIER W/ARCHEOLOGICAL AREA - CONTRACTOR TO INSTALL SNOW FENCE BARRIER W/ARCHEOLOGICAL AREA LOCATED 2 FEET WEST OF THE EXISTING PARKING AREA AS DETAILED ON SHEETS #6, 7 AND 37.
79	CONSTRUCTION SURVEY STAKING AND AS-BUILT SURVEY - CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION SURVEY STAKING AND PROVIDING AN AS-BUILT SURVEY TO THE OWNER UPON COMPLETION OF THE PROJECT.
80	NPDES GENERAL PERMIT #2 & SWPPP - CONTRACTOR SHALL OBTAIN THE NECESSARY NPDES GENERAL PERMIT #2 AS GREATER THAN 1 ACRE OF AREA IS BEING DISTURBED WITH THIS PROJECT AND TO PREPARE A SWPPP IN ACCORDANCE WITH PERMIT #2. CONTRACTOR IS RESPONSIBLE FOR SUPPLYING INSPECTIONS & RECORD KEEPING.
81	MOBILIZATION - COST FOR CONTRACTOR TO MOBILIZE.

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

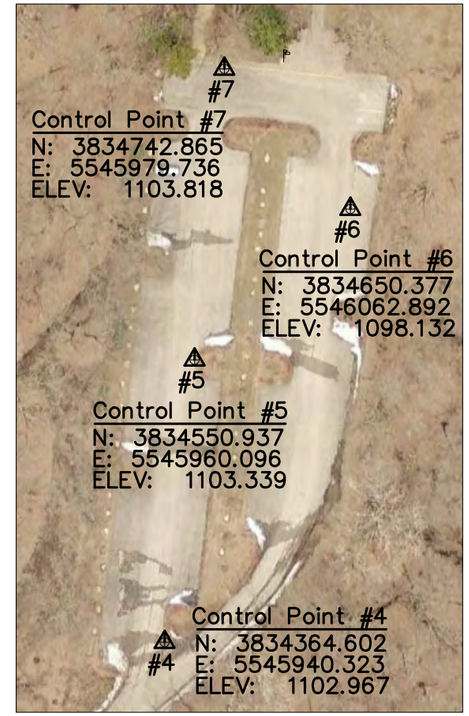
QUANTITIES & GENERAL NOTES

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 4

SEE VIEWPORT TO THE RIGHT FOR CONTINUATION



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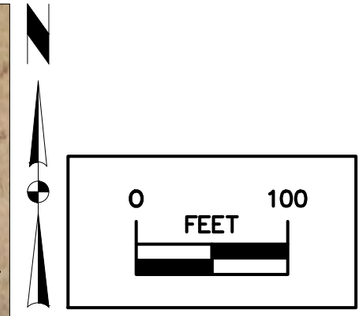


SURVEY CONTROL NOTES

1. SURVEY CONTROL POINT COORDINATES ARE STATE PLANE.
2. MANY OF THE CONTROL POINTS ARE PK NAILS SET IN THE EXISTING ASPHALT SURFACE WHICH WILL BE REMOVED DURING THE DEMOLITION PHASE, SURVEYOR SHOULD ESTABLISH ADDITIONAL CONTROL POINTS OUTSIDE OF CONSTRUCTION AREAS.
3. SURVEYOR IS RESPONSIBLE FOR CONFIRMING THE ACCURACY OF ANY CONTROL POINTS USED.

SURVEY CONTROL POINTS

SURVEY CONTROL POINT #1
N: 3834226.632
E: 5545461.341
ELEV: 1123.096
CUT 'X' MAIN HWY POLE

SURVEY CONTROL POINT #2
N: 3834217.493
E: 5545573.021
ELEV: 1120.414
CUT 'X'

SURVEY CONTROL POINT #3
N: 3834204.738
E: 5545724.073
ELEV: 1117.661
SET PK NAIL

SURVEY CONTROL POINT #4
N: 3834364.602
E: 5545940.323
ELEV: 1102.967
SET PK NAIL

SURVEY CONTROL POINT #5
N: 3834550.937
E: 5545960.096
ELEV: 1103.339
SET PK NAIL

SURVEY CONTROL POINT #6
N: 3834650.377
E: 5546062.892
ELEV: 1098.132
SET PK NAIL

SURVEY CONTROL POINT #7
N: 3833742.865
E: 5545979.736
ELEV: 1103.818
SET PK NAIL

SURVEY CONTROL POINT #8
N: 3834118.230
E: 5545760.188
ELEV: 1119.310
SET PK NAIL

SURVEY CONTROL POINT #9
N: 3834187.896
E: 5546042.811
ELEV: 1106.181
SET PK NAIL

SURVEY CONTROL POINT #10
N: 3834054.988
E: 5546091.253
ELEV: 1099.811
SET PK NAIL

SURVEY CONTROL POINT #11
N: 3833951.087
E: 5545768.785
ELEV: 1117.021
SET PK NAIL

SURVEY CONTROL POINT #12
N: 3834016.023
E: 5545671.291
ELEV: 1122.169
SET PK NAIL

SURVEY CONTROL POINT #13
N: 3833879.692
E: 5545651.276
ELEV: 1116.567
SET PK NAIL

SURVEY CONTROL POINT #14
N: 3833618.660
E: 5545687.630
ELEV: 1105.793
SET PK NAIL

SURVEY CONTROL POINT #15
N: 3833419.759
E: 5545704.785
ELEV: 1098.126
SET PK NAIL

SURVEY CONTROL POINT #16
N: 3833447.458
E: 5545856.222
ELEV: 1102.803
SET PK NAIL

SURVEY CONTROL POINT #17
N: 3833646.314
E: 5545788.465
ELEV: 1111.007
SET PK NAIL

SURVEY CONTROL POINT #18
N: 3833489.293
E: 5545949.982
ELEV: 1097.435
SET PK NAIL

SURVEY CONTROL POINT #19
N: 3833582.191
E: 5545943.261
ELEV: 1097.879
SET PK NAIL

SURVEY CONTROL POINT #20
N: 3833695.775
E: 5545872.944
ELEV: 1102.868
SET HUB

SURVEY CONTROL POINT #21
N: 3833758.427
E: 5545929.578
ELEV: 1096.216
SET HUB

SURVEY CONTROL POINT #22
N: 3834095.428
E: 5545600.325
ELEV: 1125.245
RIVER MONUMENT

SURVEY CONTROL POINT #23
N: 3834157.904
E: 5545622.754
ELEV: 1119.959
DIMPLE MANHOLE RIM

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

SURVEY CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 5

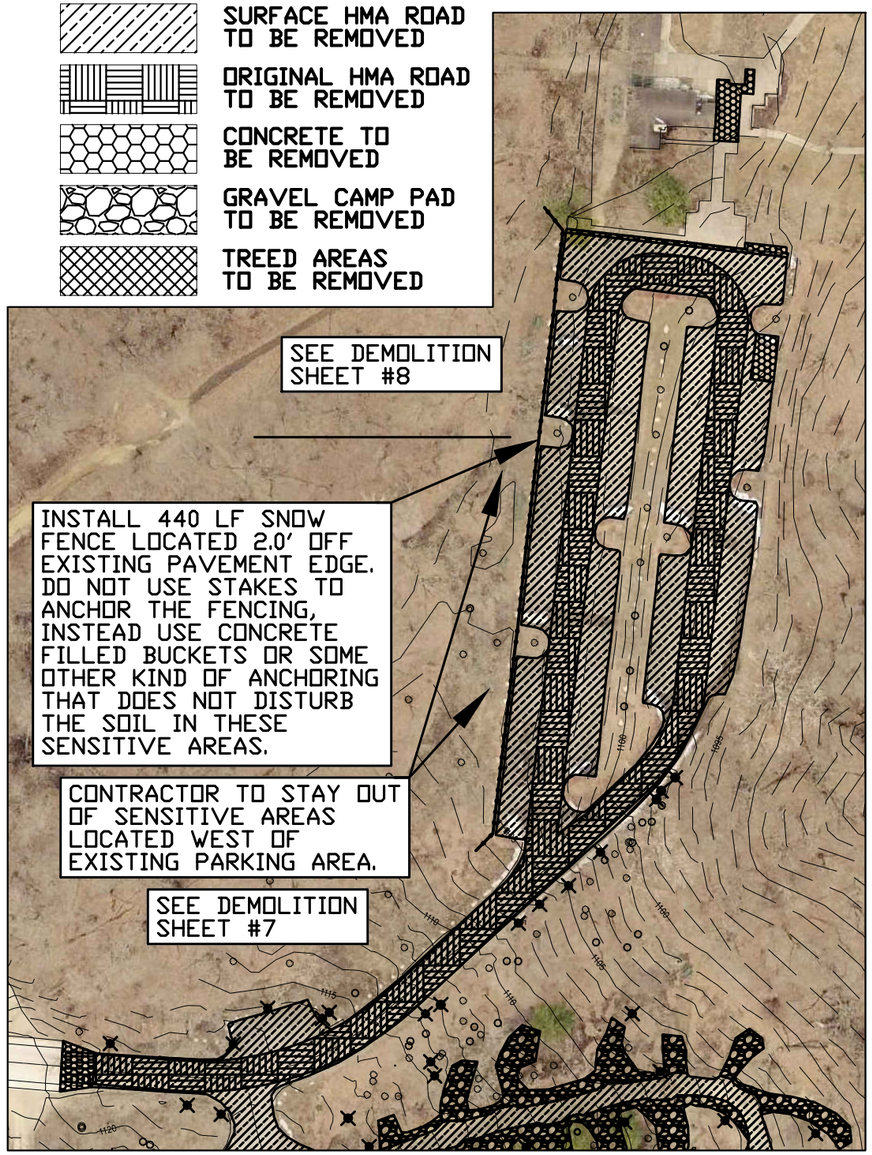
LEGEND

EXISTING/PROPOSED

- SAN 8" — SANITARY SEWER
- ST 8" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- 20" ASH — TREE TO BE REMOVED
- SURFACE HMA ROAD TO BE REMOVED
- ORIGINAL HMA ROAD TO BE REMOVED
- CONCRETE TO BE REMOVED
- GRAVEL CAMP PAD TO BE REMOVED
- TREED AREAS TO BE REMOVED

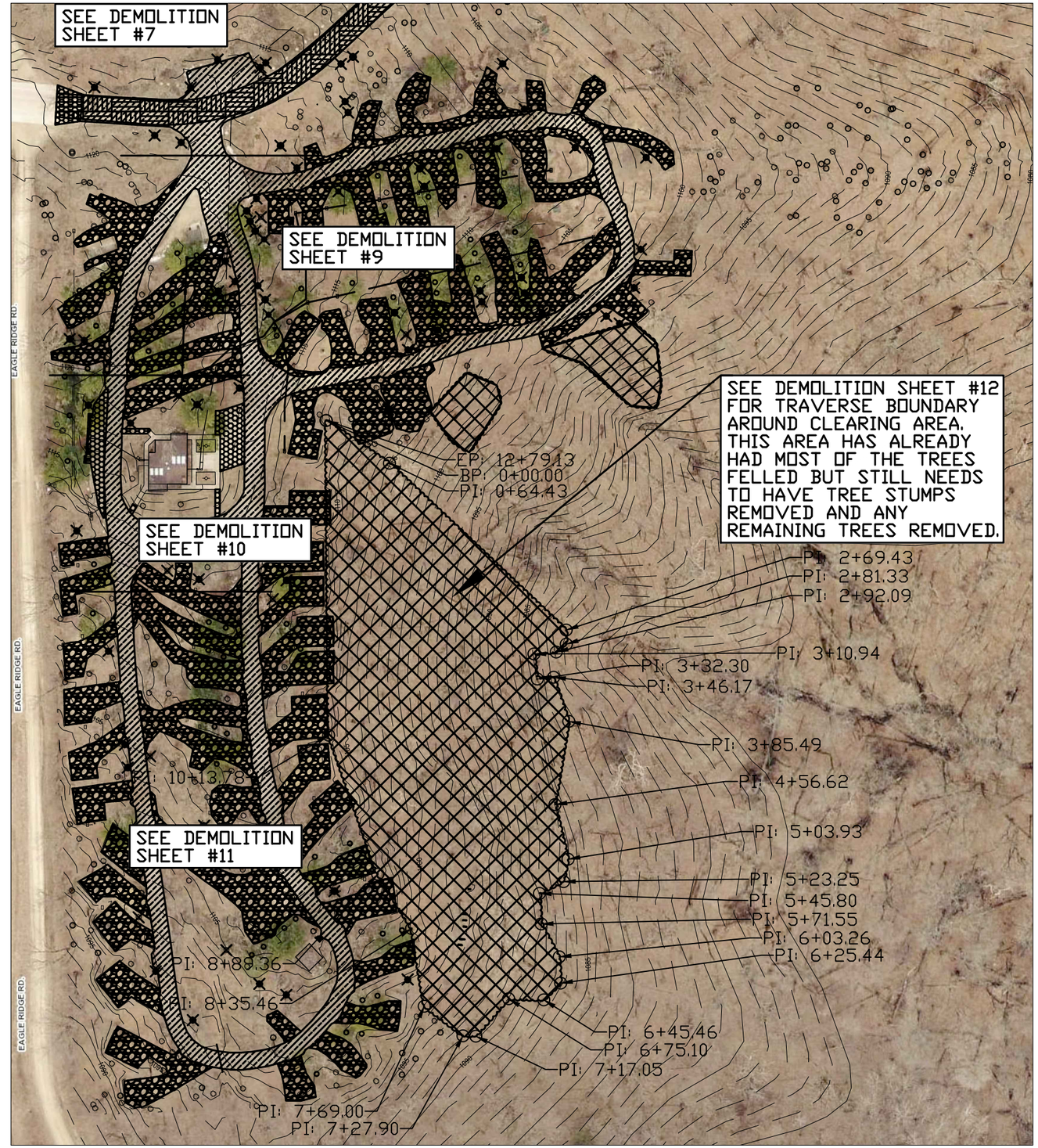
NOTES
1. SEE SHEET #7 FOR DEMOLITION AND CLEARING AND GRUBBING NOTES.

0 100 FEET



SEE ADJACENT FOR CONTINUATION

SEE ADJACENT FOR CONTINUATION



CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

OVERALL DEMOLITION PLAN

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY: DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 6

0 50
FEET

LEGEND

EXISTING/PROPOSED

- SAN 8" — SANITARY SEWER
- ST 8" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- 20" ASH — TREE TO BE REMOVED
- SURFACE HMA ROAD TO BE REMOVED
- ORIGINAL HMA ROAD TO BE REMOVED
- CONCRETE TO BE REMOVED
- GRAVEL CAMP PAD TO BE REMOVED
- TREED AREAS TO BE REMOVED

DEMOLITION NOTES

1. CONTRACTOR TO REMOVE EXISTING PCC CONCRETE AS SHOWN. CONCRETE FROM DEMOLITION SHALL BE USED AS EROSION CONTROL IN ERODING DRAINAGE CHANNELS, SEE GRADING SHEET #44 FOR LOCATIONS AND DETAILS.
2. CONTRACTOR SHALL REMOVE THE EXISTING HMA CAMPGROUND ROAD IN THE AREAS SHOWN. THE HMA CAMPGROUND SURFACE ROAD IS 10,100 SQUARE YARDS AND IS ASSUMED TO BE AN AVERAGE OF 5-INCHES OF THICKNESS (APPROXIMATELY 2,556.6 TONS). THERE IS ALSO AN EXISTING ACC ROAD BENEATH THE SURFACE ACC THAT WAS THE ORIGINAL ENTRANCE LOOP ROAD WHICH ALSO NEED TO BE REMOVED AND IS ASSUMED TO BE 20 FEET IN WIDTH FOR A LENGTH OF 1,250 FEET AND AN ASSUMED DEPTH OF 5-INCHES YIELDING AN ADDITIONAL 2,700 SY (APPROXIMATELY 680 TONS). MAY USE CRUSHED HMA AS SPECIAL BACKFILL FOR THE ROADWAY BASE IN ACCORDANCE WITH IDOT SECTION 4132.
3. SAWCUT EXISTING PCC WHERE NOTED ON PLANS FOR CLEAN EDGES.
4. CONTRACTOR TO REMOVE EXISTING DISPOSAL STATION AND HYDRANTS LOCATED WEST OF THE EXISTING SHOWER BUILDING, DISPOSE OF PROPERLY.
5. AN ARCHEOLOGICAL INSPECTION OF THE PARKING LOT AREA NEEDS TO OCCUR AFTER THE PAVEMENTS HAVE BEEN REMOVED TO LOOK FOR ANY CULTURAL DEPOSITS. COORDINATE WITH DNR INSPECTOR. CONTRACTOR TO STAY OUT OF SENSITIVE AREA LOCATED WEST OF THE EXISTING PARKING AREA.

CLEARING & GRUBBING NOTES

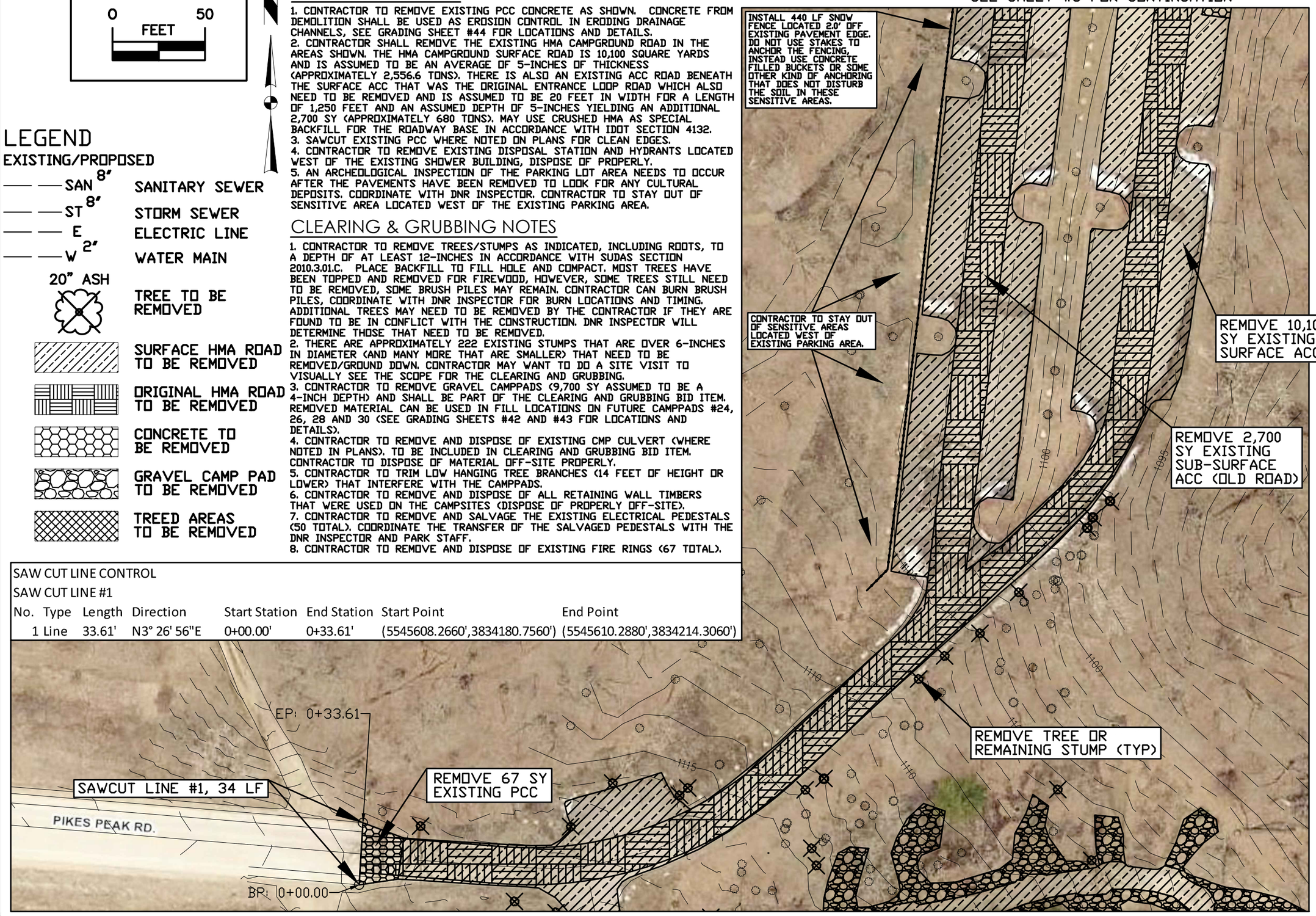
1. CONTRACTOR TO REMOVE TREES/STUMPS AS INDICATED, INCLUDING ROOTS, TO A DEPTH OF AT LEAST 12-INCHES IN ACCORDANCE WITH SUDAS SECTION 2010.3.01.C. PLACE BACKFILL TO FILL HOLE AND COMPACT. MOST TREES HAVE BEEN TOPPED AND REMOVED FOR FIREWOOD, HOWEVER, SOME TREES STILL NEED TO BE REMOVED, SOME BRUSH PILES MAY REMAIN. CONTRACTOR CAN BURN BRUSH PILES, COORDINATE WITH DNR INSPECTOR FOR BURN LOCATIONS AND TIMING. ADDITIONAL TREES MAY NEED TO BE REMOVED BY THE CONTRACTOR IF THEY ARE FOUND TO BE IN CONFLICT WITH THE CONSTRUCTION. DNR INSPECTOR WILL DETERMINE THOSE THAT NEED TO BE REMOVED.
2. THERE ARE APPROXIMATELY 222 EXISTING STUMPS THAT ARE OVER 6-INCHES IN DIAMETER (AND MANY MORE THAT ARE SMALLER) THAT NEED TO BE REMOVED/GROUND DOWN. CONTRACTOR MAY WANT TO DO A SITE VISIT TO VISUALLY SEE THE SCOPE FOR THE CLEARING AND GRUBBING.
3. CONTRACTOR TO REMOVE GRAVEL CAMPPADS (9,700 SY ASSUMED TO BE A 4-INCH DEPTH) AND SHALL BE PART OF THE CLEARING AND GRUBBING BID ITEM. REMOVED MATERIAL CAN BE USED IN FILL LOCATIONS ON FUTURE CAMPPADS #24, 26, 28 AND 30 (SEE GRADING SHEETS #42 AND #43 FOR LOCATIONS AND DETAILS).
4. CONTRACTOR TO REMOVE AND DISPOSE OF EXISTING CMP CULVERT (WHERE NOTED IN PLANS). TO BE INCLUDED IN CLEARING AND GRUBBING BID ITEM. CONTRACTOR TO DISPOSE OF MATERIAL OFF-SITE PROPERLY.
5. CONTRACTOR TO TRIM LOW HANGING TREE BRANCHES (14 FEET OF HEIGHT OR LOWER) THAT INTERFERE WITH THE CAMPPADS.
6. CONTRACTOR TO REMOVE AND DISPOSE OF ALL RETAINING WALL TIMBERS THAT WERE USED ON THE CAMPSITES (DISPOSE OF PROPERLY OFF-SITE).
7. CONTRACTOR TO REMOVE AND SALVAGE THE EXISTING ELECTRICAL PEDESTALS (50 TOTAL). COORDINATE THE TRANSFER OF THE SALVAGED PEDESTALS WITH THE DNR INSPECTOR AND PARK STAFF.
8. CONTRACTOR TO REMOVE AND DISPOSE OF EXISTING FIRE RINGS (67 TOTAL).

SAW CUT LINE CONTROL

SAW CUT LINE #1

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	33.61'	N3° 26' 56"E	0+00.00'	0+33.61'	(5545608.2660',3834180.7560')	(5545610.2880',3834214.3060')

SEE SHEET #8 FOR CONTINUATION



SEE SHEET #9 FOR CONTINUATION

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

DEMOLITION PLAN

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:

PROJECT NUMBER: 21-03-22-01

CHK'D BY:

DATE: 5/01/2021

SHEET No: 7

SAW CUT LINE CONTROL

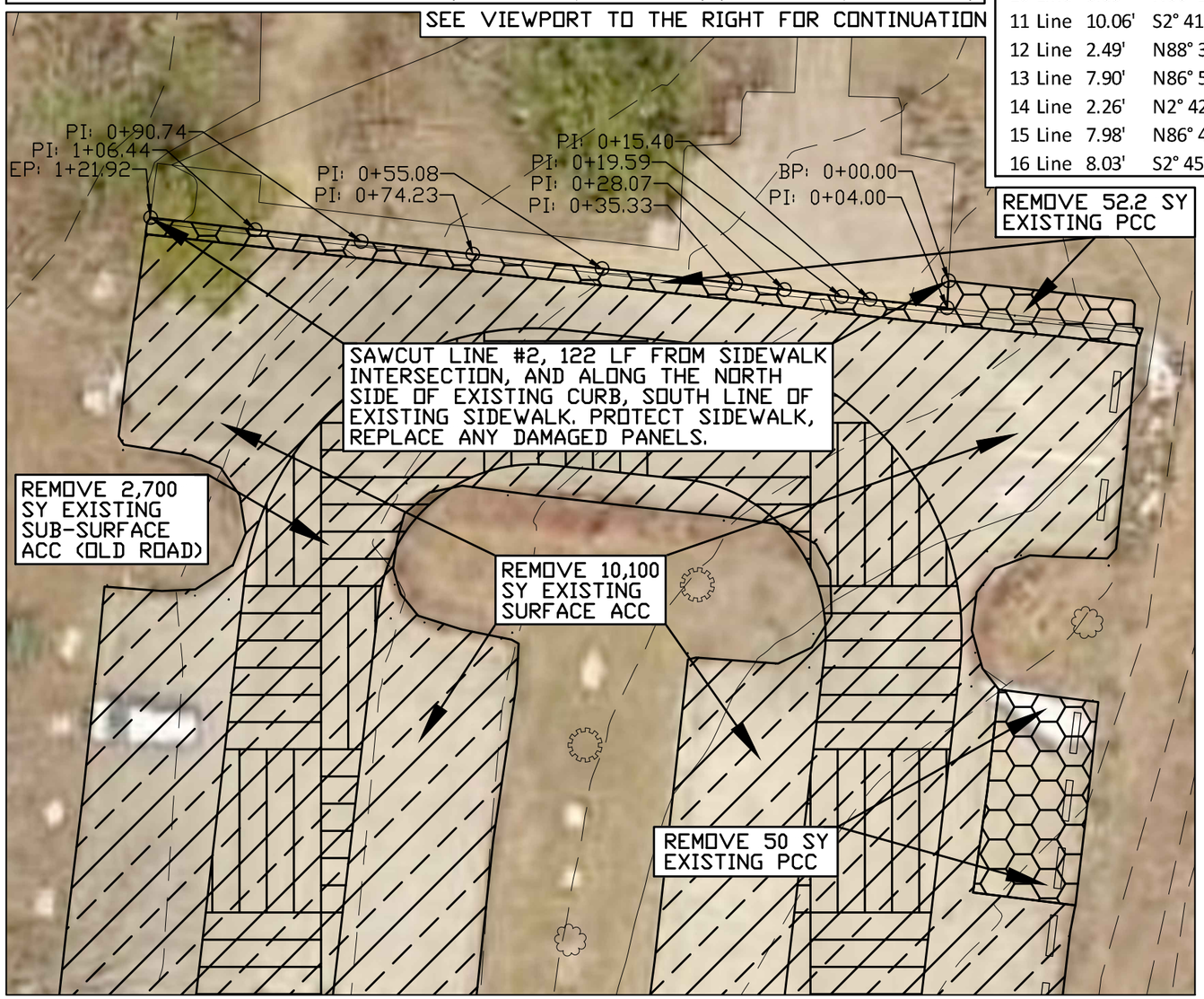
SAW CUT LINE #2

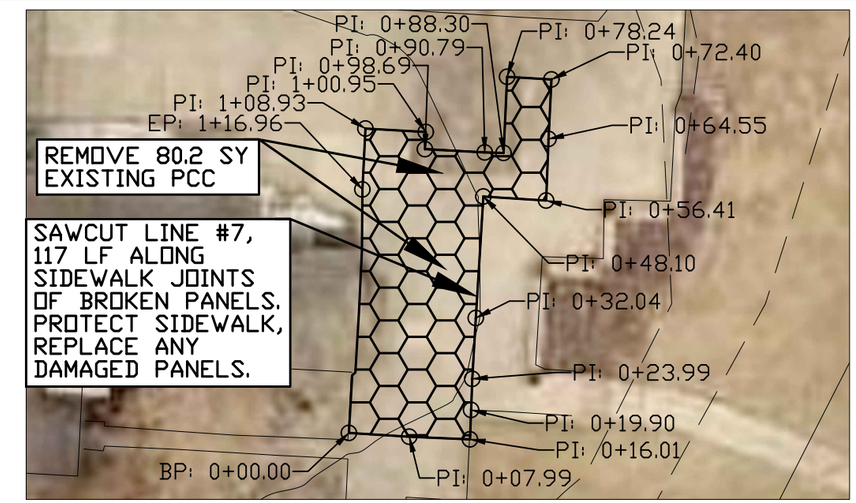
No.	Type	Length	Direction	Start Stat	End Stati	Start Point	End Point
1	Line	4.00'	S2° 59' 43"W	0+00.00'	0+04.00'	(5546060.3100',3834740.8850')	(5546060.1009',3834736.8894')
2	Line	11.40'	N83° 40' 33"W	0+04.00'	0+15.40'	(5546060.1009',3834736.8894')	(5546048.7720',3834738.1450')
3	Line	4.19'	N84° 37' 56"W	0+15.40'	0+19.59'	(5546048.7720',3834738.1450')	(5546044.6000',3834738.5370')
4	Line	8.48'	N82° 57' 17"W	0+19.59'	0+28.07'	(5546044.6000',3834738.5370')	(5546036.1850',3834739.5770')
5	Line	7.26'	N82° 56' 26"W	0+28.07'	0+35.33'	(5546036.1850',3834739.5770')	(5546028.9820',3834740.4690')
6	Line	19.75'	N83° 37' 41"W	0+35.33'	0+55.08'	(5546028.9820',3834740.4690')	(5546009.3530',3834742.6610')
7	Line	19.15'	N83° 37' 32"W	0+55.08'	0+74.23'	(5546009.3530',3834742.6610')	(5545990.3230',3834744.7870')
8	Line	16.52'	N83° 29' 09"W	0+74.23'	0+90.74'	(5545990.3230',3834744.7870')	(5545973.9110',3834746.6610')
9	Line	15.70'	N83° 42' 32"W	0+90.74'	1+06.44'	(5545973.9110',3834746.6610')	(5545958.3090',3834748.3810')
10	Line	15.48'	N83° 25' 19"W	1+06.44'	1+21.92'	(5545958.3090',3834748.3810')	(5545942.9340',3834750.1540')

SAW CUT LINE CONTROL

SAW CUT LINE #7

No.	Type	Length	Direction	Start Stat	End Stati	Start Point	End Point
1	Line	7.99'	S86° 25' 14"E	0+00.00'	0+07.99'	(5546039.7300',3834808.4240')	(5546047.7070',3834807.9250')
2	Line	8.02'	S87° 29' 25"E	0+07.99'	0+16.01'	(5546047.7070',3834807.9250')	(5546055.7150',3834807.5740')
3	Line	3.89'	N2° 14' 24"E	0+16.01'	0+19.90'	(5546055.7150',3834807.5740')	(5546055.8670',3834811.4600')
4	Line	4.09'	N2° 06' 05"E	0+19.90'	0+23.99'	(5546055.8670',3834811.4600')	(5546056.0170',3834815.5480')
5	Line	8.05'	N3° 16' 10"E	0+23.99'	0+32.04'	(5546056.0170',3834815.5480')	(5546056.4760',3834823.5830')
6	Line	16.07'	N3° 34' 32"E	0+32.04'	0+48.10'	(5546056.4760',3834823.5830')	(5546057.4780',3834839.6190')
7	Line	8.31'	S86° 18' 04"E	0+48.10'	0+56.41'	(5546057.4780',3834839.6190')	(5546065.7690',3834839.0830')
8	Line	8.13'	N2° 08' 55"E	0+56.41'	0+64.55'	(5546065.7690',3834839.0830')	(5546066.0740',3834847.2120')
9	Line	7.85'	N2° 47' 47"E	0+64.55'	0+72.40'	(5546066.0740',3834847.2120')	(5546066.4570',3834855.0530')
10	Line	5.85'	N86° 27' 33"W	0+72.40'	0+78.24'	(5546066.4570',3834855.0530')	(5546060.6230',3834855.4140')
11	Line	10.06'	S2° 41' 24"W	0+78.24'	0+88.30'	(5546060.6230',3834855.4140')	(5546060.1510',3834845.3680')
12	Line	2.49'	N88° 38' 39"W	0+88.30'	0+90.79'	(5546060.1510',3834845.3680')	(5546057.6580',3834845.4270')
13	Line	7.90'	N86° 51' 51"W	0+90.79'	0+98.69'	(5546057.6580',3834845.4270')	(5546049.7730',3834845.8590')
14	Line	2.26'	N2° 42' 31"E	0+98.69'	1+00.95'	(5546049.7730',3834845.8590')	(5546049.8800',3834848.1203')
15	Line	7.98'	N86° 46' 10"W	1+00.95'	1+08.93'	(5546049.8800',3834848.1203')	(5546041.9120',3834848.5700')
16	Line	8.03'	S2° 45' 44"W	1+08.93'	1+16.96'	(5546041.9120',3834848.5700')	(5546041.5250',3834840.5490')





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SEE VIEWPORT TO THE LEFT FOR CONTINUATION

LEGEND

EXISTING/PROPOSED

- SAN 8" — SANITARY SEWER
- ST 8" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- SURFACE HMA ROAD TO BE REMOVED
- ORIGINAL HMA ROAD TO BE REMOVED
- CONCRETE TO BE REMOVED

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

DEMOLITION PLAN

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY DATE	REVISION

DRAWN BY:

PROJECT NUMBER: 21-03-22-01

CHK'D BY:

DATE: 5/01/2021

SHEET No: 8

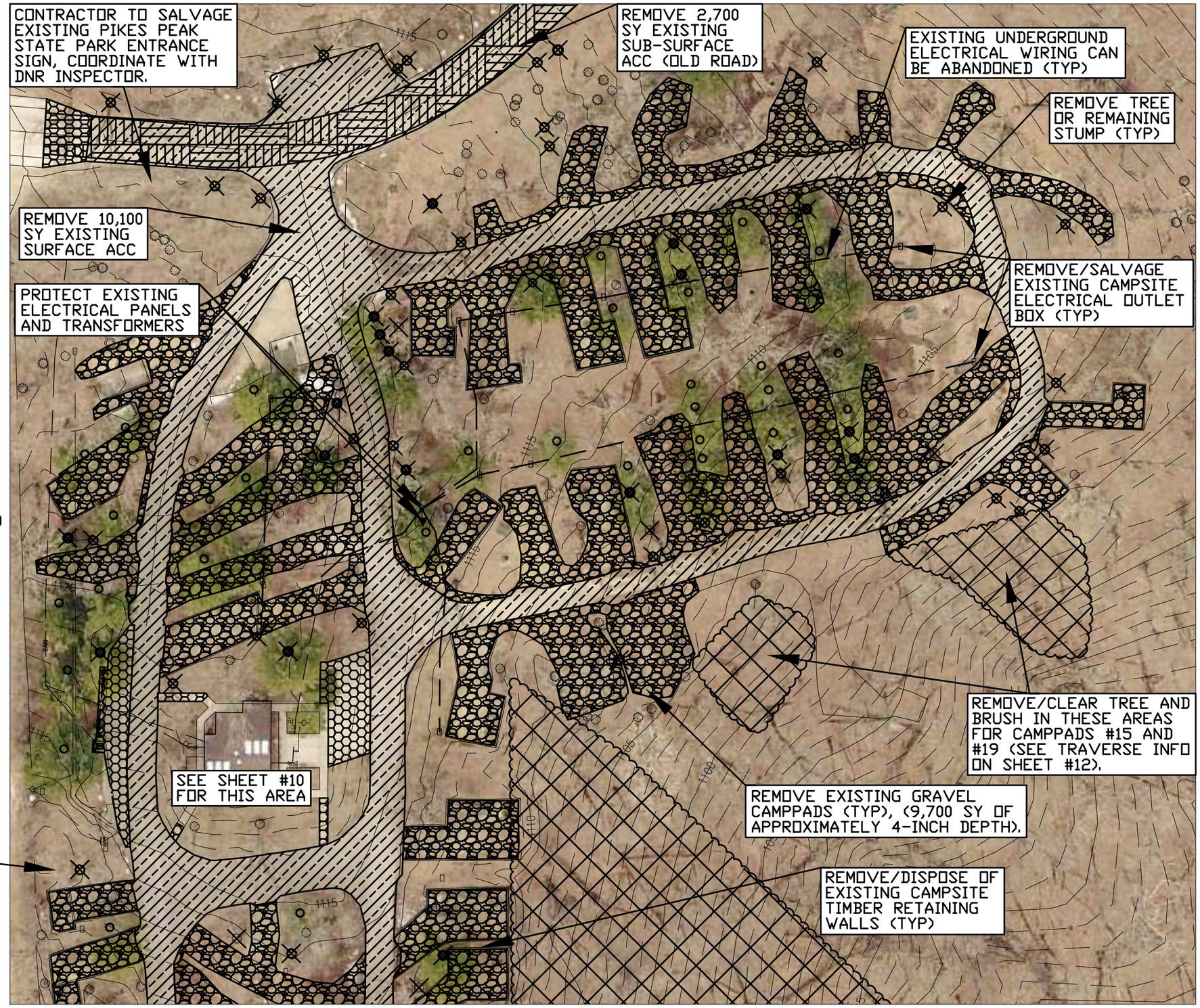
SEE SHEET #7 FOR CONTINUATION

0 50
FEET

LEGEND

EXISTING/PROPOSED

- SAN 8" — SANITARY SEWER
- ST 8" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- 20" ASH — TREE TO BE REMOVED
- SURFACE HMA ROAD TO BE REMOVED
- ORIGINAL HMA ROAD TO BE REMOVED
- CONCRETE TO BE REMOVED
- GRAVEL CAMP PAD TO BE REMOVED
- TREED AREAS TO BE REMOVED



SEE SHEET #11 FOR CONTINUATION

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

DEMOLITION PLAN

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CLAYTON COUNTY, IOWA

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CHK'D BY:
DATE: 5/01/2021
SHEET No: 9

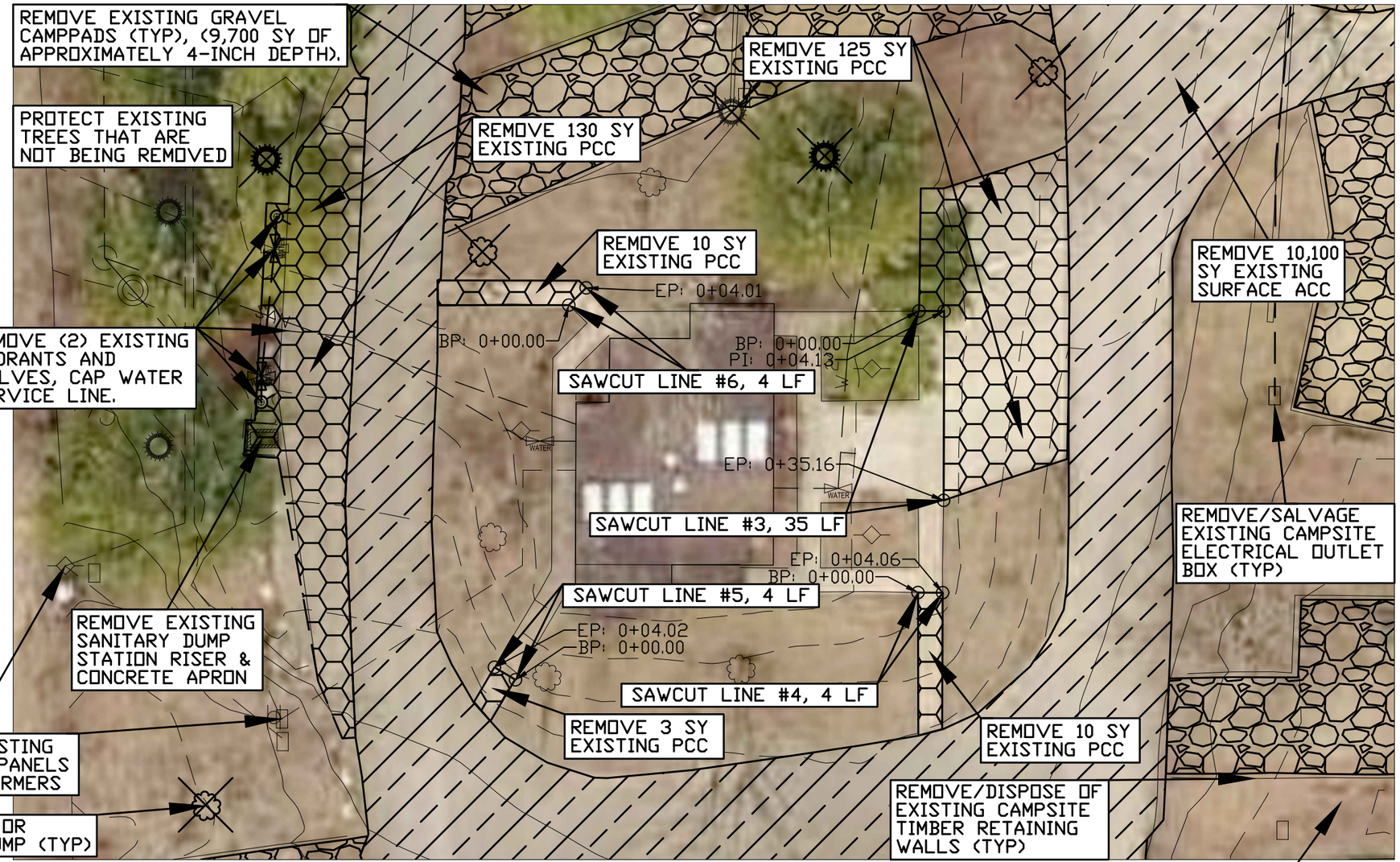
SEE SHEET #9 FOR CONTINUATION

0 20
FEET

LEGEND

EXISTING/PROPOSED

- SAN 8" — SANITARY SEWER
- ST 8" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- 20" ASH — TREE TO BE REMOVED
- ASPHALT DRIVE TO BE REMOVED
- CONCRETE TO BE REMOVED
- GRAVEL CAMP PAD TO BE REMOVED
- TREED AREAS TO BE REMOVED



SEE SHEET #11 FOR CONTINUATION

SAW CUT LINE CONTROL

SAW CUT LINE #3

No.	Type	Length	Direction	Start Stat	End Stati	Start Point	End Point
1	Line	4.13'	S89° 50' 38"E	0+00.00'	0+04.13'	(5545743.4270',3833919.4920')	(5545747.5539',3833919.4808')
2	Line	31.03'	S0° 07' 52"W	0+04.13'	0+35.16'	(5545747.5539',3833919.4808')	(5545747.4830',3833888.4500')

SAW CUT LINE #4

No.	Type	Length	Direction	Start Stat	End Stati	Start Point	End Point
1	Line	4.06'	N89° 52' 23"W	0+00.00'	0+04.06'	(5545747.3130',3833873.3200')	(5545743.2550',3833873.3290')

SAW CUT LINE #5

No.	Type	Length	Direction	Start Stat	End Stati	Start Point	End Point
1	Line	4.02'	N59° 21' 34"W	0+00.00'	0+04.02'	(5545677.2449',3833859.0309')	(5545673.7896',3833861.0776')

SAW CUT LINE #6

No.	Type	Length	Direction	Start Stat	End Stati	Start Point	End Point
1	Line	4.01'	N45° 02' 10"E	0+00.00'	0+04.01'	(5545685.9880',3833920.4690')	(5545688.8246',3833923.3020')

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

DEMOLITION PLAN

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
CHK'D BY:
PROJECT NUMBER: 21-03-22-01
DATE: 5/01/2021
SHEET No: 10

SEE SHEETS #9 & 10 FOR CONTINUATION

0 50
FEET

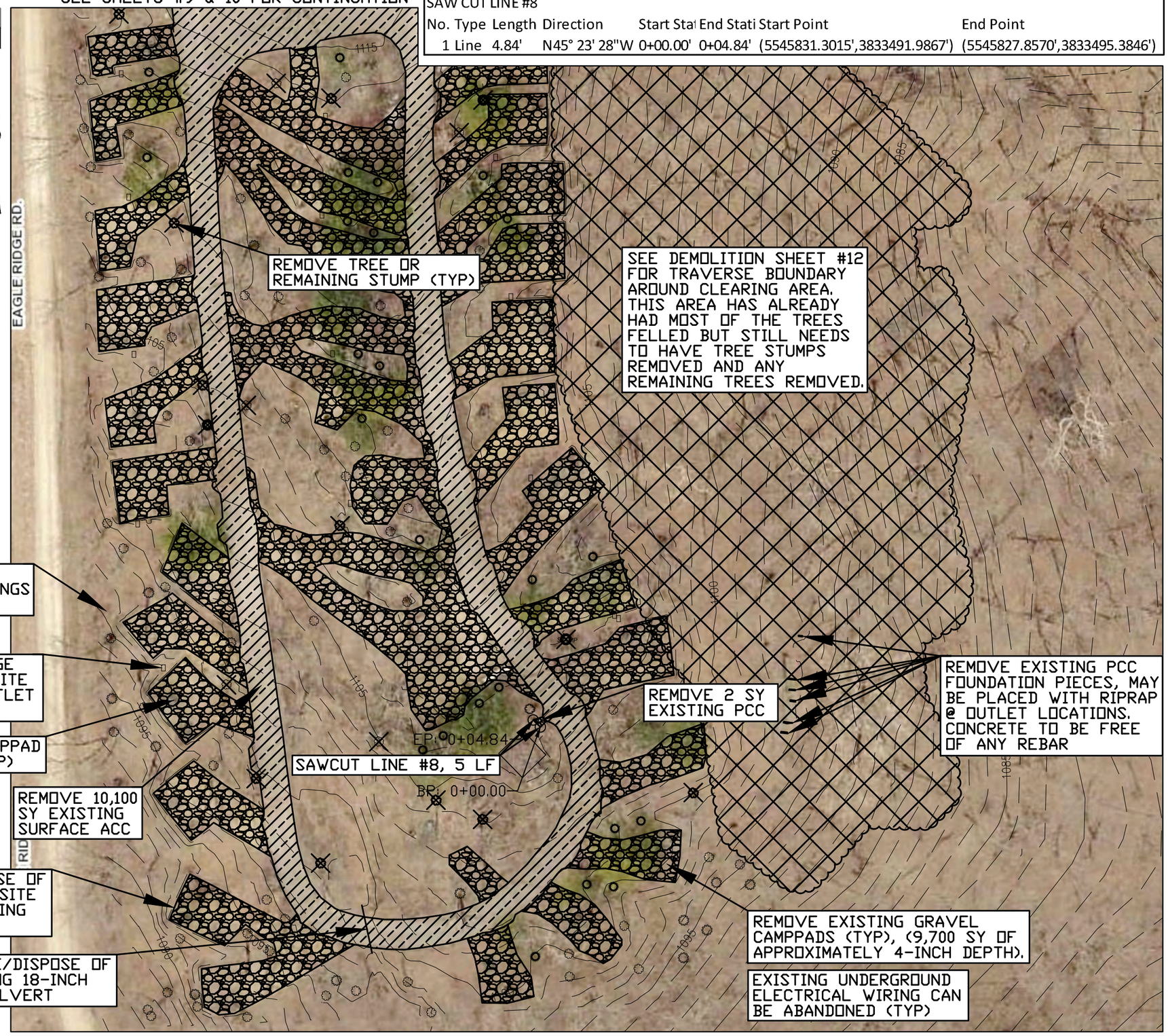
LEGEND

EXISTING/PROPOSED

- SAN 8" — SANITARY SEWER
- ST 8" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- 20" ASH — TREE TO BE REMOVED
- ASPHALT DRIVE TO BE REMOVED
- CONCRETE TO BE REMOVED
- GRAVEL CAMP PAD TO BE REMOVED
- TREED AREAS TO BE REMOVED

SAW CUT LINE #8

No.	Type	Length	Direction	Start Stat	End Stati	Start Point	End Point
1	Line	4.84'	N45° 23' 28"W	0+00.00'	0+04.84'	(5545831.3015',3833491.9867')	(5545827.8570',3833495.3846')



CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

DEMOLITION PLAN

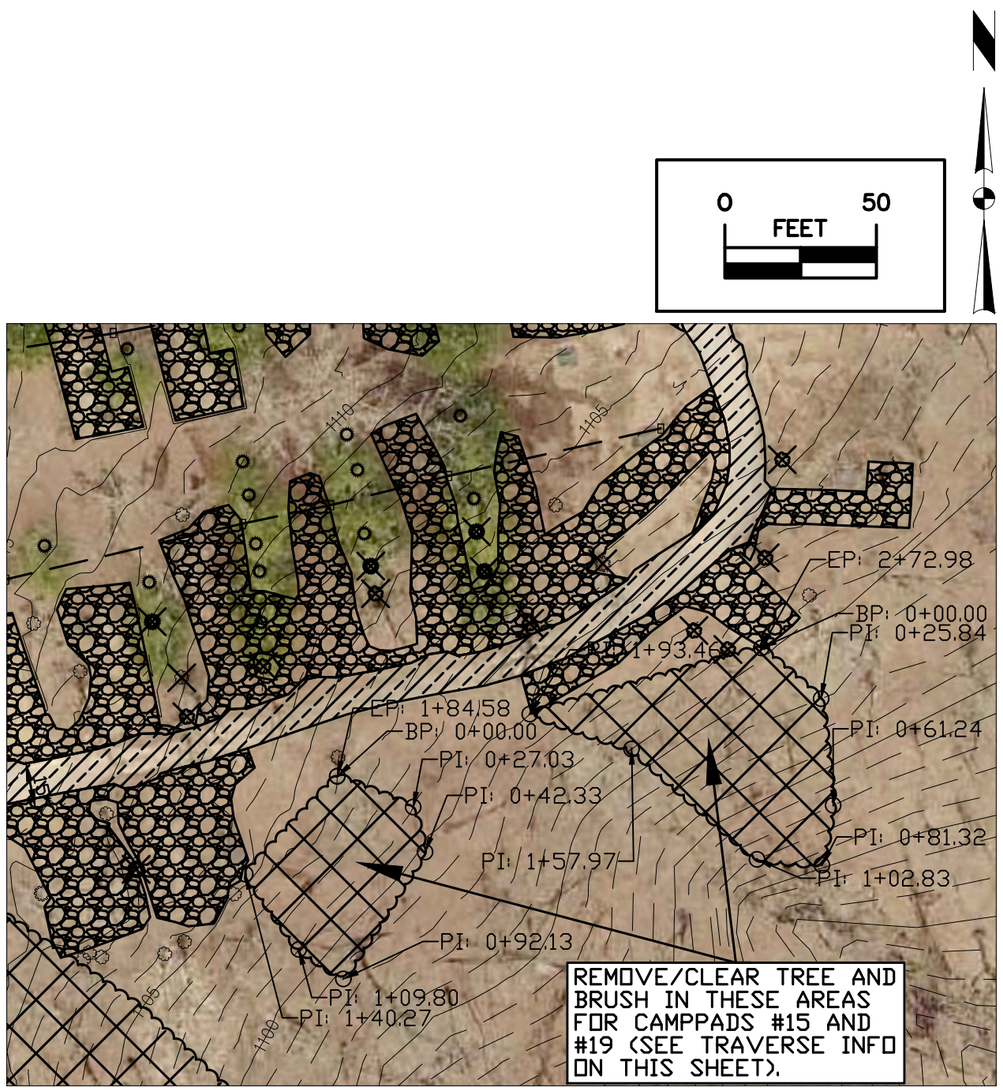
CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
CHK'D BY:
PROJECT NUMBER: 21-03-22-01
DATE: 5/01/2021
SHEET No: 11



TREE CLEARING TRAVERSE LINE

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	64.43'	S55° 57' 52"E	0+00.00'	0+64.43'	(5545836.9205',3833931.4721')	(5545890.3114',3833895.4112')
2	Line	205.00'	S46° 40' 38"E	0+64.43'	2+69.43'	(5545890.3114',3833895.4112')	(5546039.4520',3833754.7560')
3	Line	11.90'	S0° 03' 01"E	2+69.43'	2+81.33'	(5546039.4520',3833754.7560')	(5546039.4624',3833742.8573')
4	Line	10.76'	S51° 46' 53"W	2+81.33'	2+92.09'	(5546039.4624',3833742.8573')	(5546031.0069',3833736.1990')
5	Line	18.85'	S85° 09' 58"W	2+92.09'	3+10.94'	(5546031.0069',3833736.1990')	(5546012.2249',3833734.6106')
6	Line	21.36'	S7° 39' 16"E	3+10.94'	3+32.30'	(5546012.2249',3833734.6106')	(5546015.0702',3833713.4402')
7	Line	13.87'	N83° 43' 15"E	3+32.30'	3+46.17'	(5546015.0702',3833713.4402')	(5546028.8545',3833714.9569')
8	Line	39.32'	S18° 52' 15"E	3+46.17'	3+85.49'	(5546028.8545',3833714.9569')	(5546041.5721',3833677.7499')
9	Line	71.12'	S9° 20' 59"W	3+85.49'	4+56.62'	(5546041.5721',3833677.7499')	(5546030.0170',3833607.5701')
10	Line	47.32'	S13° 27' 32"E	4+56.62'	5+03.93'	(5546030.0170',3833607.5701')	(5546041.0301',3833561.5521')
11	Line	19.32'	S11° 35' 55"W	5+03.93'	5+23.25'	(5546041.0301',3833561.5521')	(5546037.1463',3833542.6294')
12	Line	22.54'	S63° 47' 33"W	5+23.25'	5+45.80'	(5546037.1463',3833542.6294')	(5546016.9189',3833532.6730')
13	Line	25.76'	S3° 14' 28"E	5+45.80'	5+71.55'	(5546016.9189',3833532.6730')	(5546018.3751',3833506.9578')
14	Line	31.71'	S28° 40' 14"E	5+71.55'	6+03.26'	(5546018.3751',3833506.9578')	(5546033.5863',3833479.1399')
15	Line	22.19'	S2° 55' 38"E	6+03.26'	6+25.44'	(5546033.5863',3833479.1399')	(5546034.7194',3833456.9826')
16	Line	20.02'	S45° 20' 37"W	6+25.44'	6+45.46'	(5546034.7194',3833456.9826')	(5546020.4789',3833442.9119')
17	Line	29.64'	N88° 15' 02"W	6+45.46'	6+75.10'	(5546020.4789',3833442.9119')	(5545990.8569',3833443.8167')
18	Line	41.96'	S41° 15' 50"W	6+75.10'	7+17.05'	(5545990.8569',3833443.8167')	(5545963.1855',3833412.2789')
19	Line	10.85'	N88° 17' 27"W	7+17.05'	7+27.90'	(5545963.1855',3833412.2789')	(5545952.3434',3833412.6025')
20	Line	41.10'	N52° 41' 39"W	7+27.90'	7+69.00'	(5545952.3434',3833412.6025')	(5545919.6555',3833437.5092')
21	Line	66.47'	N9° 12' 49"W	7+69.00'	8+35.46'	(5545919.6555',3833437.5092')	(5545909.0132',3833503.1174')
22	Line	53.90'	N32° 01' 30"W	8+35.46'	8+89.36'	(5545909.0132',3833503.1174')	(5545880.4300',3833548.8154')
23	Line	124.42'	N19° 27' 26"W	8+89.36'	10+13.78'	(5545880.4300',3833548.8154')	(5545838.9861',3833666.1279')
24	Line	265.35'	N0° 26' 46"W	10+13.78'	12+79.13'	(5545838.9861',3833666.1279')	(5545836.9205',3833931.4721')

TREE CLEARING TRAVERSE LINE FOR CAMPPAD #15

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	25.84'	S49° 36' 11"E	0+00.00'	0+25.84'	(5546095.5508',3834013.7041')	(5546115.2317',3833996.9561')
2	Line	35.39'	S6° 27' 10"E	0+25.84'	0+61.24'	(5546115.2317',3833996.9561')	(5546119.2094',3833961.7865')
3	Line	20.08'	S10° 36' 45"W	0+61.24'	0+81.32'	(5546119.2094',3833961.7865')	(5546115.5108',3833942.0469')
4	Line	21.51'	N84° 56' 16"W	0+81.32'	1+02.83'	(5546115.5108',3833942.0469')	(5546094.0817',3833943.9451')
5	Line	55.13'	N48° 40' 08"W	1+02.83'	1+57.97'	(5546094.0817',3833943.9451')	(5546052.6817',3833980.3558')
6	Line	35.49'	N71° 07' 04"W	1+57.97'	1+93.46'	(5546052.6817',3833980.3558')	(5546019.0988',3833991.8421')
7	Line	79.52'	N74° 02' 30"E	1+93.46'	2+72.98'	(5546019.0988',3833991.8421')	(5546095.5508',3834013.7041')

TREE CLEARING TRAVERSE LINE FOR CAMPPAD #19

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	27.03'	S67° 53' 33"E	0+00.00'	0+27.03'	(5545955.6018',3833971.3500')	(5545980.6416',3833961.1786')
2	Line	15.30'	S14° 49' 42"E	0+27.03'	0+42.33'	(5545980.6416',3833961.1786')	(5545984.5582',3833946.3846')
3	Line	49.80'	S32° 45' 37"W	0+42.33'	0+92.13'	(5545984.5582',3833946.3846')	(5545957.6088',3833904.5035')
4	Line	17.67'	N56° 32' 11"W	0+92.13'	1+09.80'	(5545957.6088',3833904.5035')	(5545942.8704',3833914.2452')
5	Line	30.47'	N35° 22' 39"W	1+09.80'	1+40.27'	(5545942.8704',3833914.2452')	(5545925.2271',3833939.0924')
6	Line	44.31'	N43° 16' 41"E	1+40.27'	1+84.58'	(5545925.2271',3833939.0924')	(5545955.6018',3833971.3500')

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

DEMOLITION PLAN

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY: DATE	REVISION

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PROJECT NUMBER: 21-03-22-01

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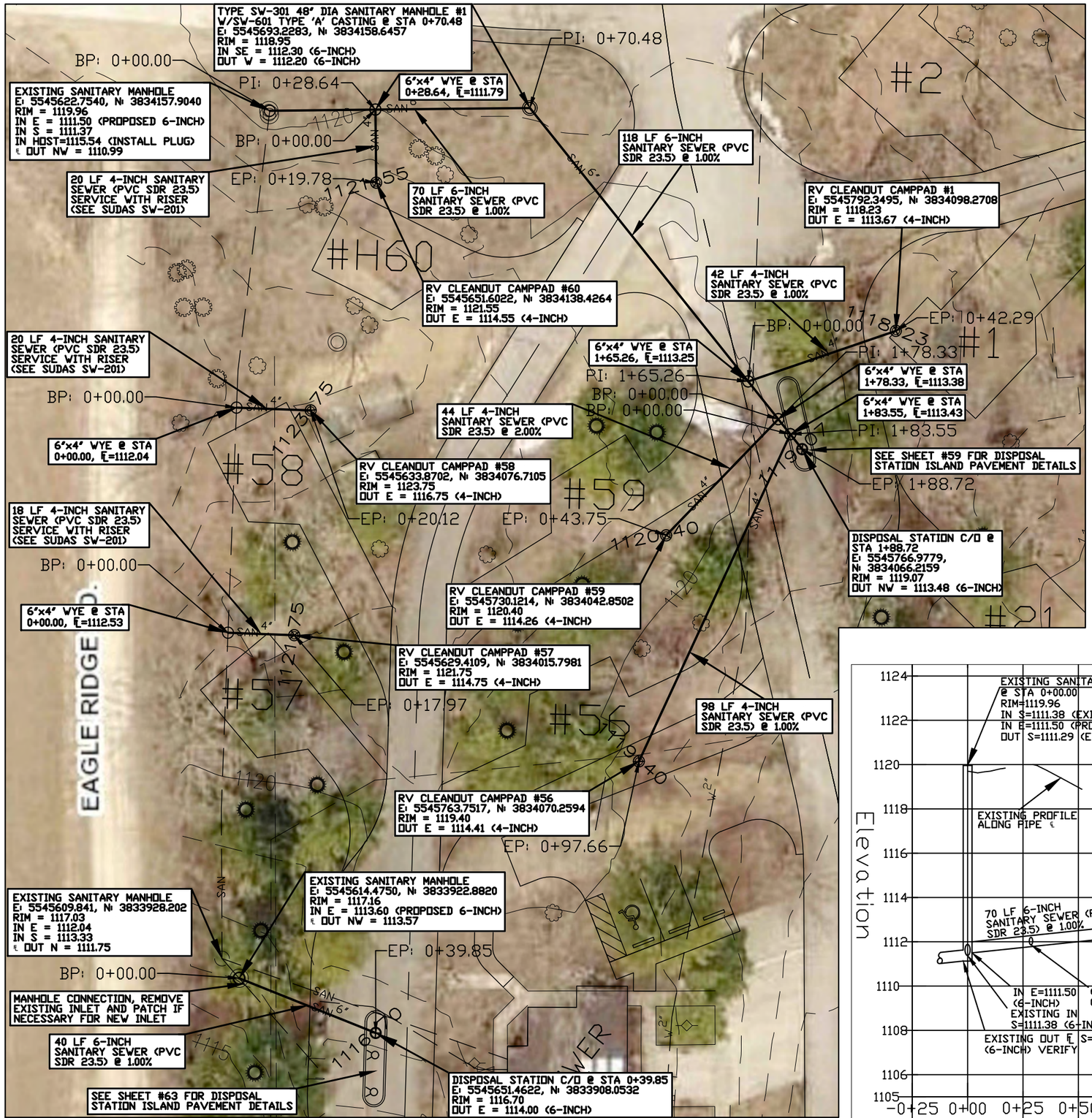
DATE: 5/01/2021

SHEET No: 12



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FEET

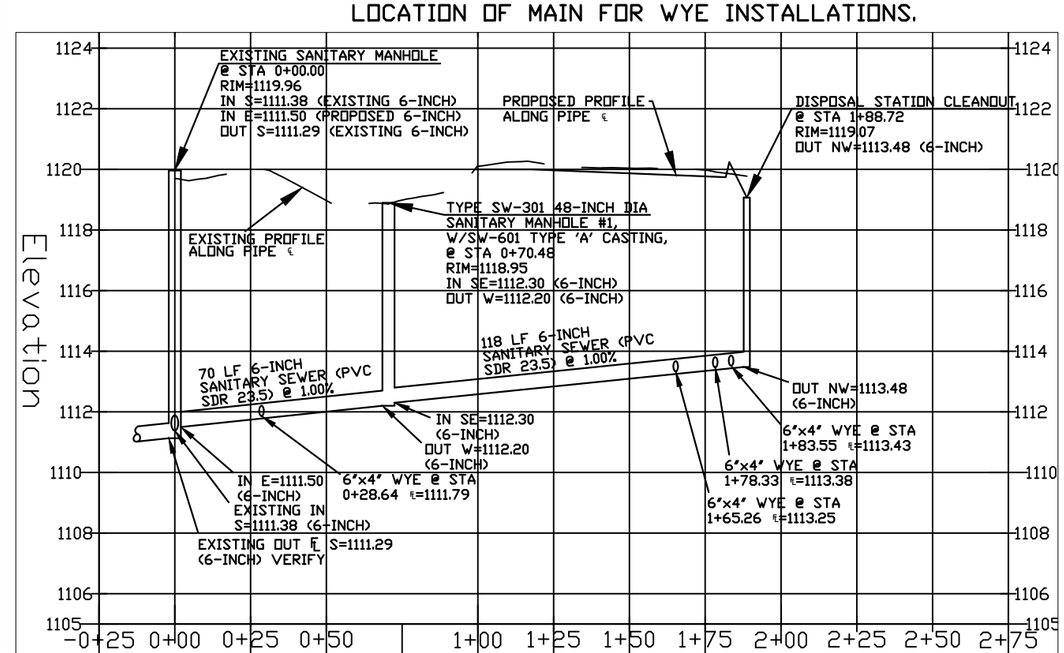
LEGEND

EXISTING/PROPOSED

—— —— SAN 6" ——	SANITARY SEWER
—— —— ST 12"	STORM SEWER
—— —— E	ELECTRIC LINE
—— —— W 2"	WATER MAIN
○ ●	MANHOLE/CLEANOUT

SANITARY SEWER NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH STATEWIDE URBAN STANDARD DESIGN SPECIFICATIONS FOR PUBLIC IMPROVEMENTS (SUDAS) STANDARDS.
2. SANITARY SEWER CONNECTIONS TO EXISTING MANHOLES SHALL BE CORE DRILLED AND USE LINK SEAL CONNECTIONS.
3. FOR SANITARY SEWER SERVICES THAT WOULD HAVE A SLOPE GREATER THAN 5% USE A SERVICE RISER IN ACCORDANCE WITH SUDAS SW-201.
4. ALL PVC SDR 23.5 PIPE SHALL BE PRIMED WITH PURPLE PVC PRIMER AND GLUED WITH BLUE PVC GLUE.
5. SEE SHEET #14 FOR SANITARY SEWER ALIGNMENT CONTROL & RV CLEANOUT AND DISPOSAL STATION CLEANOUT DETAILS.
6. EXISTING SANITARY SEWER LOCATION SHOWN IS APPROXIMATE, CONTRACTOR TO VERIFY ACTUAL LOCATION OF MAIN FOR WYE INSTALLATIONS.



CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

SANITARY SEWER PLAN

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

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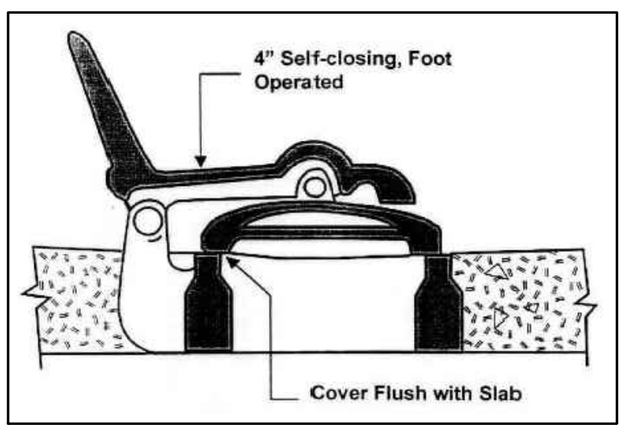
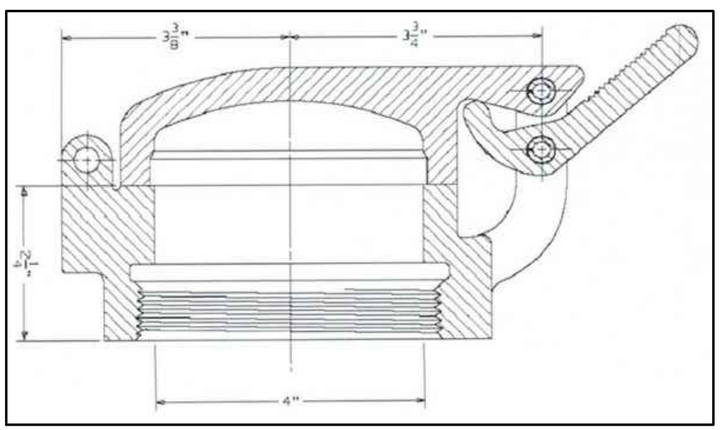
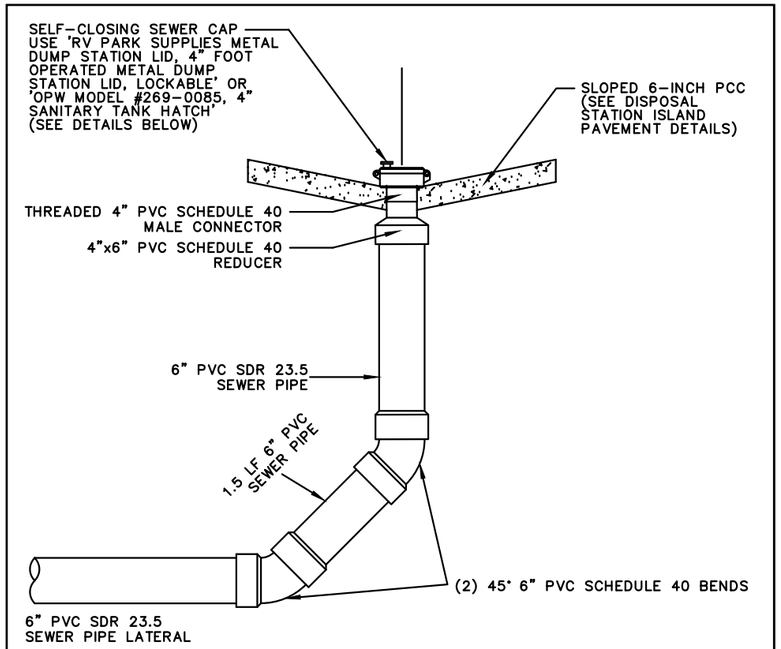
DATE: 5/01/2021
SHEET No: 13

SANITARY SEWER ALIGNMENT #1 TO DUMPSTATION							
No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	28.64'	N89° 23' 49"E	0+00.00'	0+28.64'	(5545622.7540',3834157.9040')	(5545651.3940',3834158.2054')
2	Line	41.84'	N89° 23' 49"E	0+28.64'	0+70.48'	(5545651.3940',3834158.2054')	(5545693.2283',3834158.6457')
3	Line	94.78'	S38° 35' 11"E	0+70.48'	1+65.26'	(5545693.2283',3834158.6457')	(5545752.3423',3834084.5586')
4	Line	13.07'	S38° 35' 11"E	1+65.26'	1+78.33'	(5545752.3423',3834084.5586')	(5545760.4919',3834074.3448')
5	Line	5.23'	S38° 35' 11"E	1+78.33'	1+83.55'	(5545760.4919',3834074.3448')	(5545763.7517',3834070.2594')
6	Line	5.17'	S38° 35' 11"E	1+83.55'	1+88.72'	(5545763.7517',3834070.2594')	(5545766.9779',3834066.2159')
SANITARY SEWER SERVICE TO CAMPPAD #60							
No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	19.78'	S0° 36' 11"E	0+00.00'	0+19.78'	(5545651.3940',3834158.2054')	(5545651.6022',3834138.4264')
SANITARY SEWER SERVICE TO CAMPPAD #59							
No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	43.75'	S43° 57' 32"W	0+00.00'	0+43.75'	(5545760.4919',3834074.3448')	(5545730.1214',3834042.8502')
SANITARY SEWER SERVICE TO CAMPPAD #58							
No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	20.12'	S87° 49' 51"E	0+00.00'	0+20.12'	(5545613.7689',3834077.4719')	(5545633.8702',3834076.7105')
SANITARY SEWER SERVICE TO CAMPPAD #57							
No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	17.97'	S87° 49' 51"E	0+00.00'	0+17.97'	(5545611.4586',3834016.4781')	(5545629.4109',3834015.7981')
SANITARY SEWER SERVICE TO CAMPPAD #56							
No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	97.66'	S24° 49' 47"W	0+00.00'	0+97.66'	(5545763.7517',3834070.2594')	(5545722.7436',3833981.6305')
SANITARY SEWER SERVICE TO CAMPPAD #1							
No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	42.29'	N71° 04' 52"E	0+00.00'	0+42.29'	(5545752.3423',3834084.5586')	(5545792.3495',3834098.2708')
SANITARY SEWER ALIGNMENT #2 TO DUMPSTATION							
No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	39.85'	S68° 09' 12"E	0+00.00'	0+39.85'	(5545614.4750',3833922.8820')	(5545651.4622',3833908.0532')



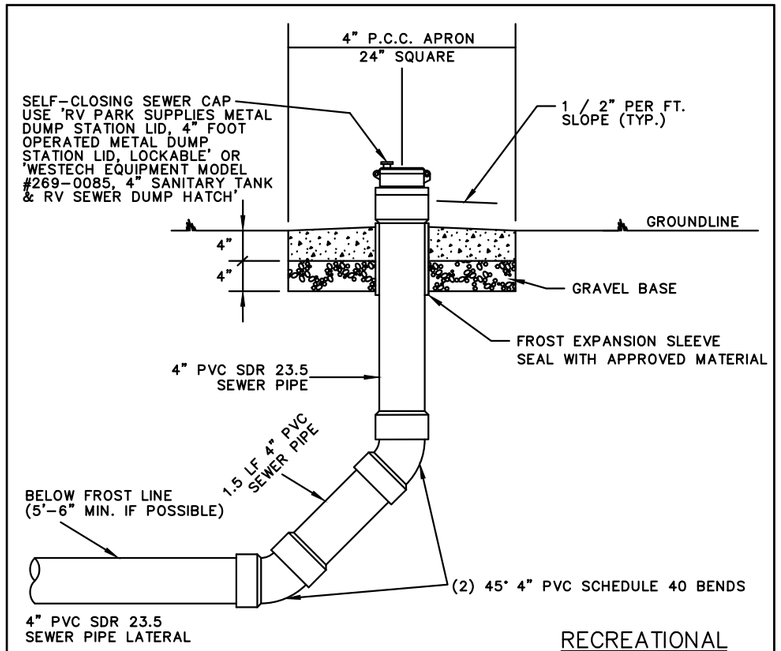




NOTE: RV DISPOSAL STATION CLEANOUT CONNECTION BID ITEM TO INCLUDE BENDS, PIPING, CONNECTOR, REDUCER & SEWER CAP AS SHOWN ABOVE.

DISPOSAL STATION SANITARY SEWER RV CONNECTION

NOT TO SCALE



NOTE: RV SANITARY SEWER CONNECTION BID ITEM TO INCLUDE BENDS, PIPING, GRAVEL BASE, CONCRETE APRON, SLEEVE & SEWER CAP AS SHOWN ABOVE.

RECREATIONAL VEHICLE TO SANITARY SEWER CONNECTION

NOT TO SCALE

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

SANITARY SEWER DETAILS

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

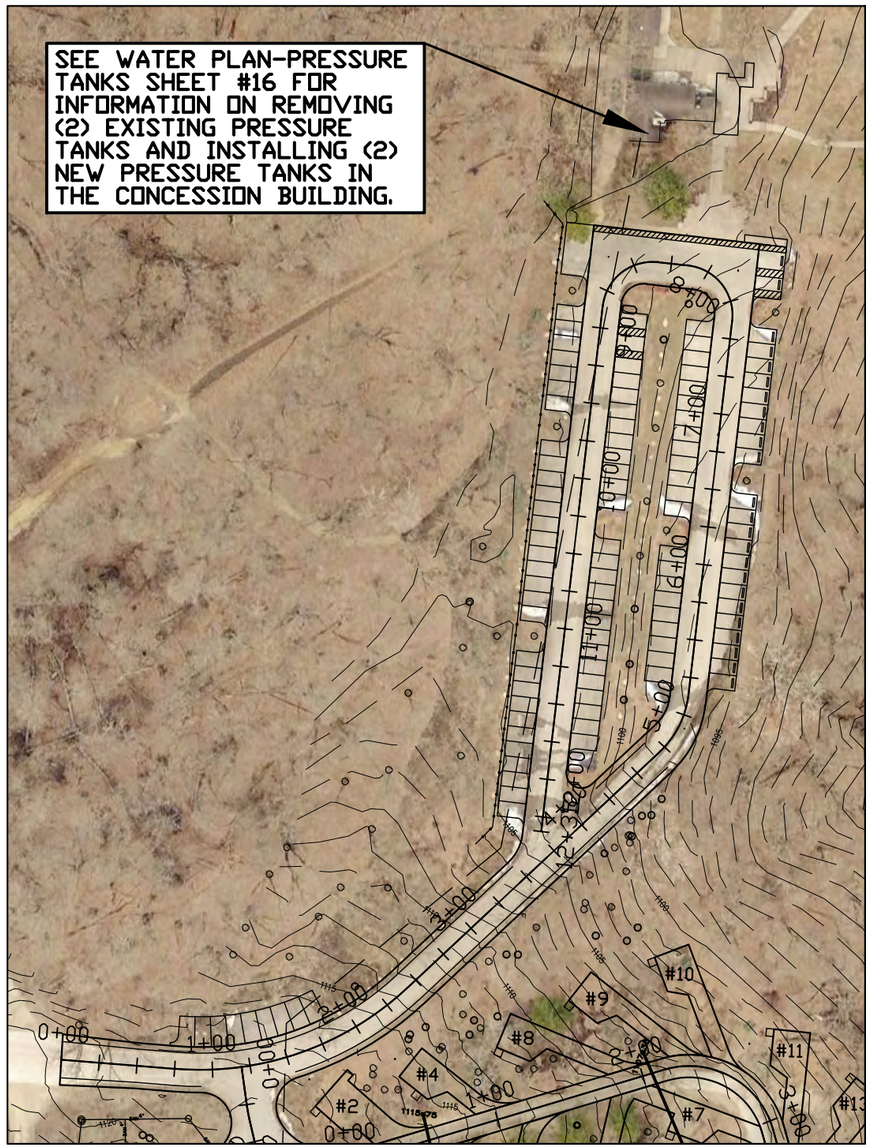
DRAWN BY:
CHK'D BY:
PROJECT NUMBER: 21-03-22-01
DATE: 5/01/2021
SHEET No: 14

LEGEND

EXISTING/PROPOSED

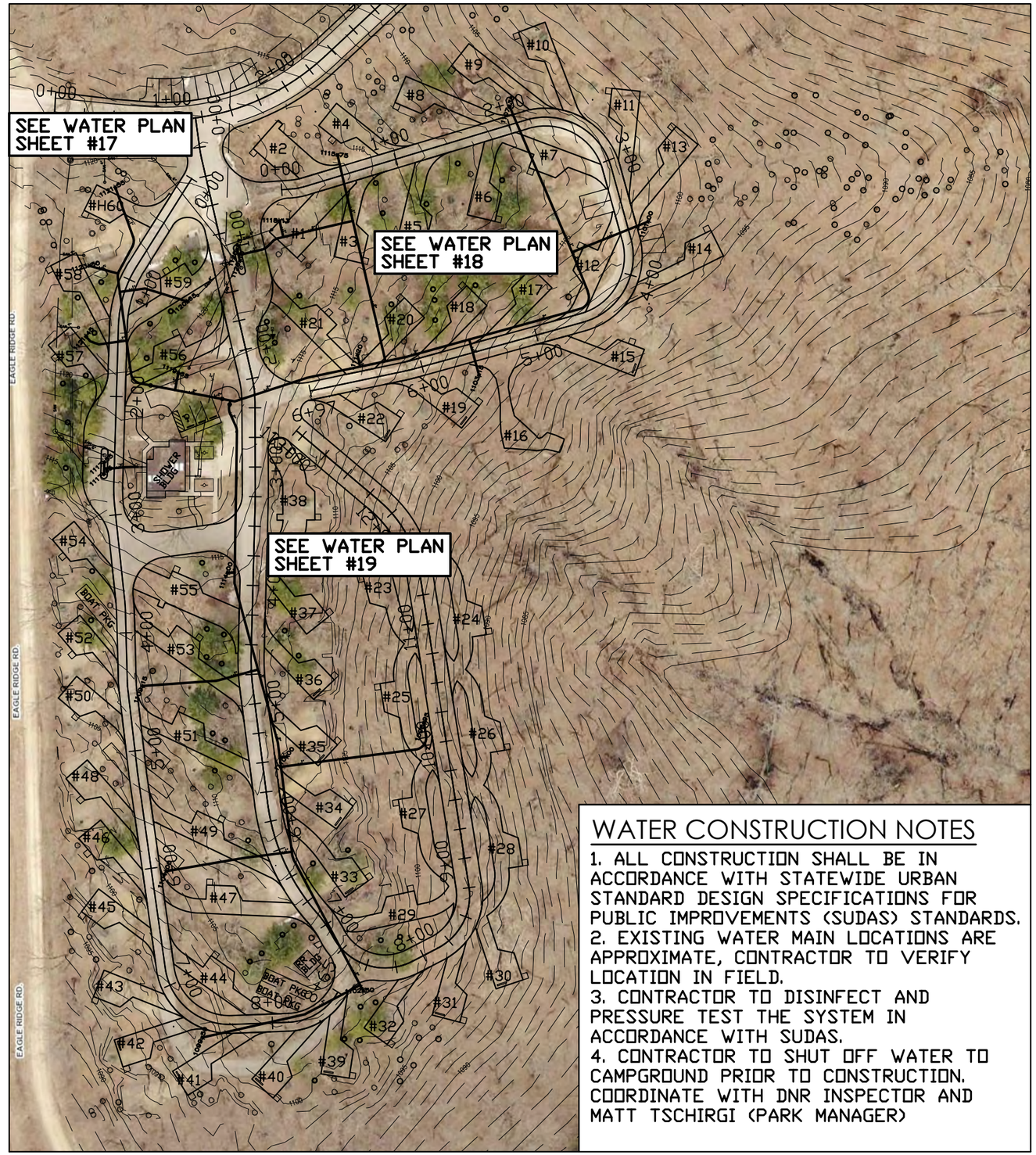
- SAN 8" — SANITARY SEWER
- ST 8" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- MANHOLE/CLEANOUT
- HYDRANT
- VALVE

0 100 FEET



SEE ADJACENT FOR CONTINUATION

SEE ADJACENT FOR CONTINUATION



WATER CONSTRUCTION NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH STATEWIDE URBAN STANDARD DESIGN SPECIFICATIONS FOR PUBLIC IMPROVEMENTS (SUDAS) STANDARDS.
2. EXISTING WATER MAIN LOCATIONS ARE APPROXIMATE, CONTRACTOR TO VERIFY LOCATION IN FIELD.
3. CONTRACTOR TO DISINFECT AND PRESSURE TEST THE SYSTEM IN ACCORDANCE WITH SUDAS.
4. CONTRACTOR TO SHUT OFF WATER TO CAMPGROUND PRIOR TO CONSTRUCTION. COORDINATE WITH DNR INSPECTOR AND MATT TSCHIRGI (PARK MANAGER)

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

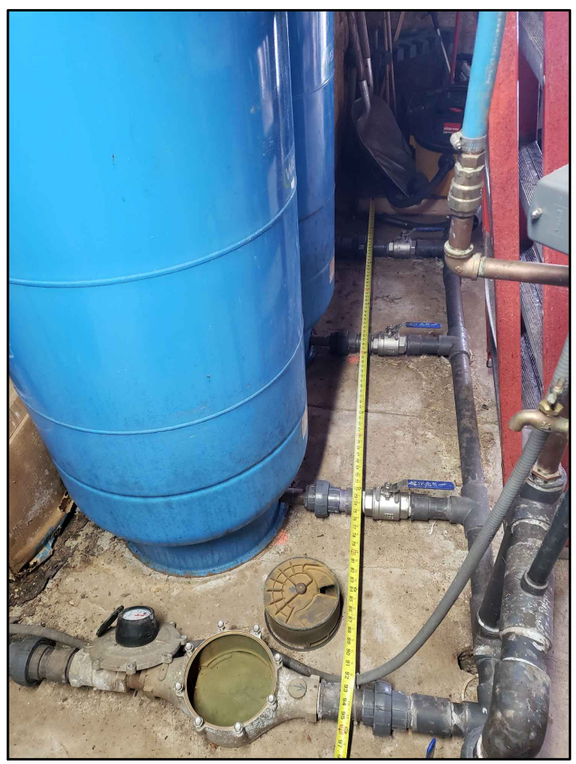
OVERALL WATER PLAN

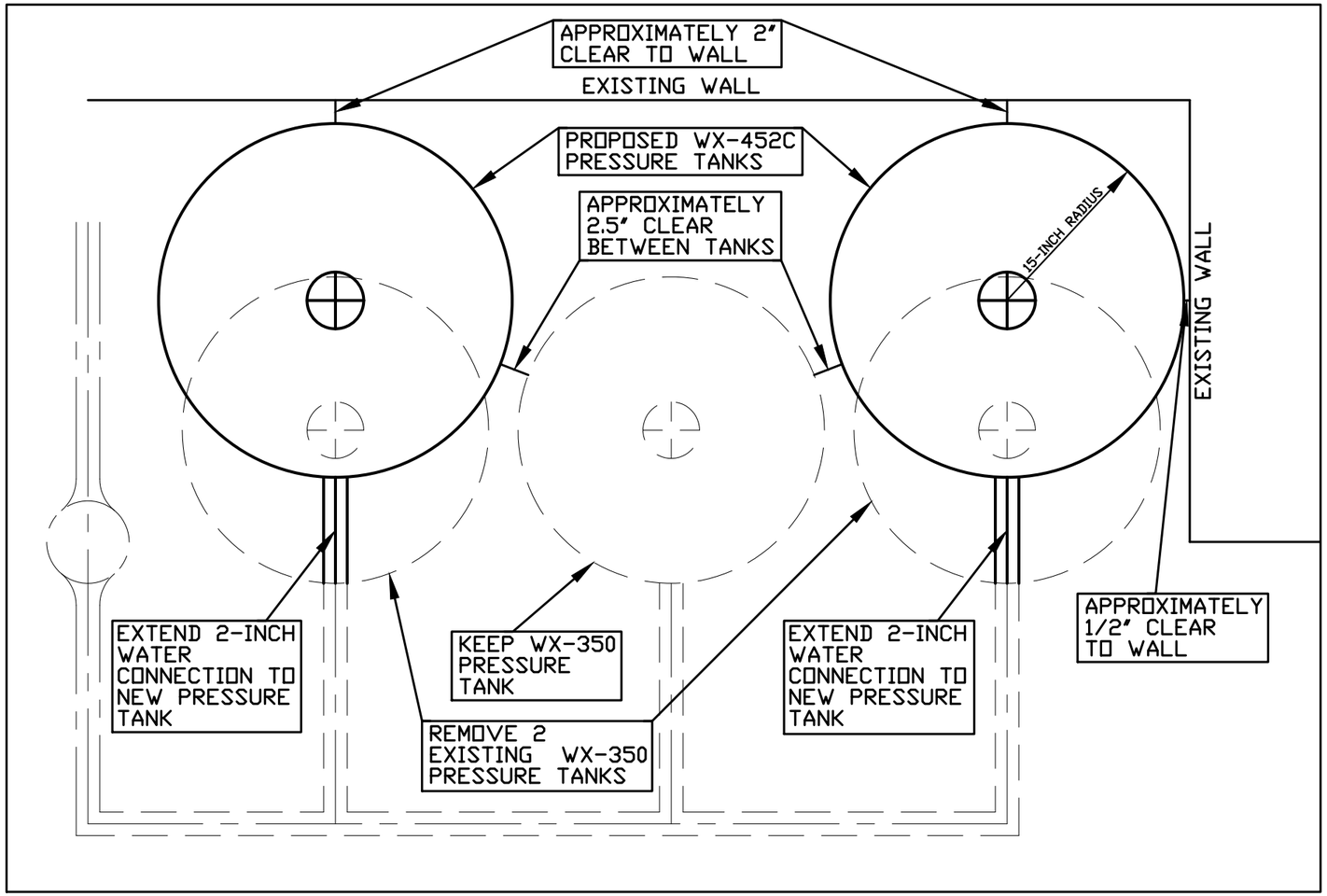
CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 15





PRESSURE TANK CONSTRUCTION NOTES

1. CONTRACTOR TO REMOVE 2 EXISTING WX-350 PRESSURE TANKS. CONTRACTOR MAY WANT TO ALSO TEMPORARILY REMOVE MIDDLE WX-350 PRESSURE TANK IN ORDER TO GAIN MORE ROOM FOR THE INSTALLATION OF THE 2 NEW WX-452C PRESSURE TANKS AND THEN RECONNECT THE MIDDLE TANK. CONTRACTOR TO DISPOSE OF THE 2 OLD TANKS.
2. CONTRACTOR TO EXTEND THE 2-INCH WATER CONNECTIONS TO THE 2 NEW TANKS.
3. CONTRACTOR TO CONTACT THE PARK RANGER FOR ACCESS: MATT TSCHIRGI (563) 873-2341
4. THERE IS A BID ITEM FOR THE PRESSURE TANK INSTALLATION AND REMOVAL OF OLD TANKS. BID ITEM TO INCLUDE ALL NECESSARY PIPING AND CONNECTORS THAT ARE NEEDED FOR INSTALLATION.

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

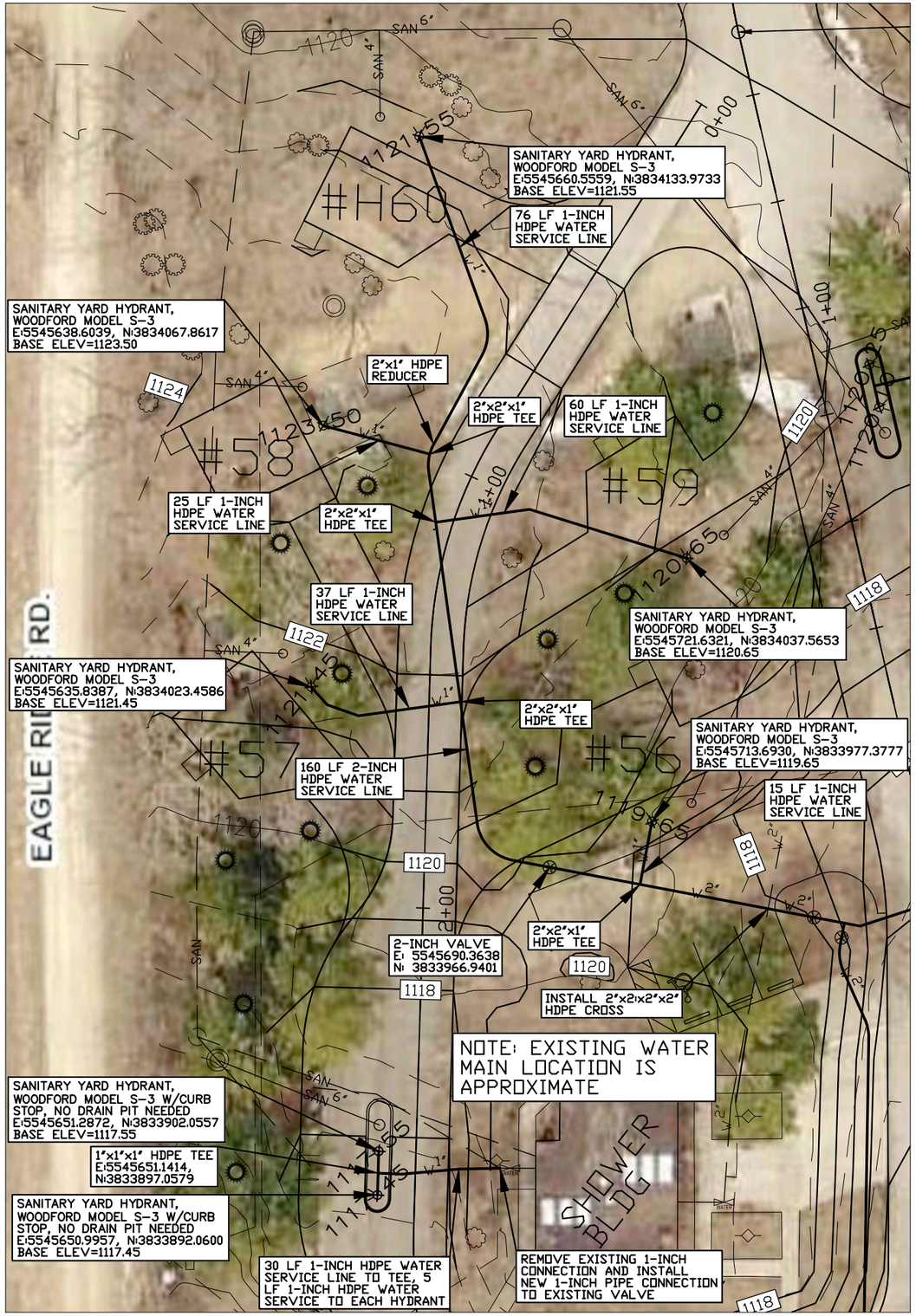
ENGINEERING SERVICES - WALLACE BUILING
502 E. 9TH ST., DES MOINES, IA 50319-0034

WATER PLAN-PRESSURE TANKS

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
CHK'D BY:
PROJECT NUMBER: 21-03-22-01
DATE: 5/01/2021
SHEET No: 16



SEE SHEET #18 FOR CONTINUATION

SEE SHEET #19 FOR CONTINUATION

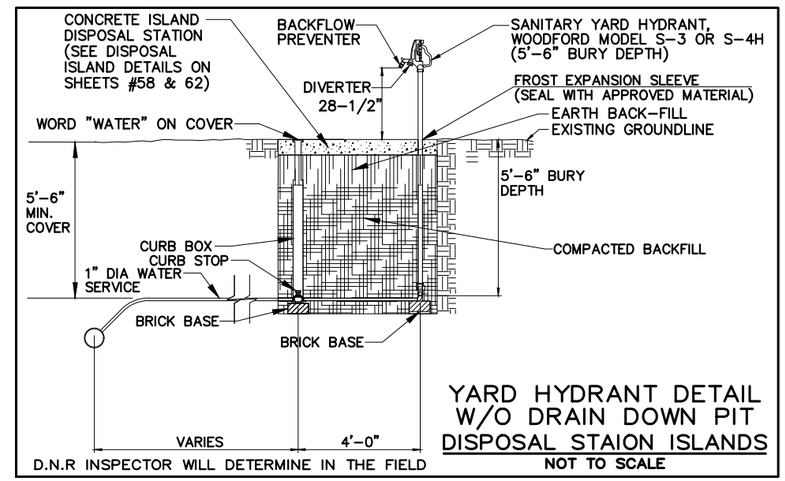
LEGEND

EXISTING/PROPOSED

- SAN 6" — SANITARY SEWER
- ST 12" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- MANHOLE/CLEANOUT
- HYDRANT
- VALVE

0 30
FEET

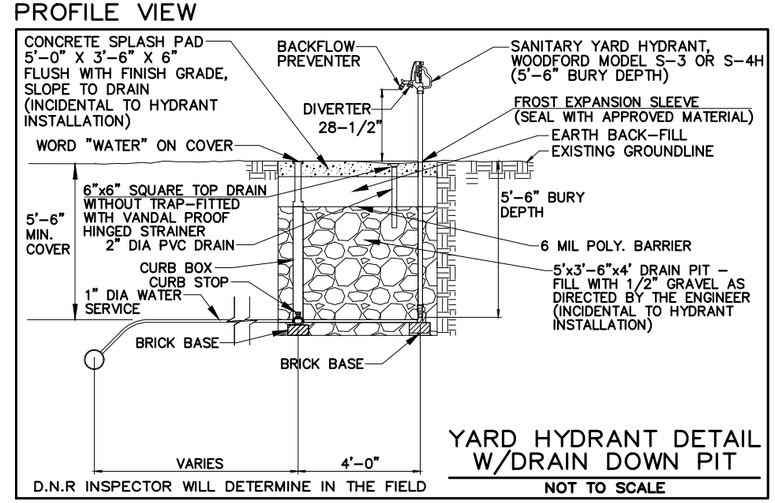
PROFILE VIEW



YARD HYDRANT DETAIL
W/O DRAIN DOWN PIT
DISPOSAL STAION ISLANDS
NOT TO SCALE

NOTE: YARD HYDRANT BID ITEM IS TO INCLUDE ALL ITEMS SHOWN IN DETAIL: CURB STOP & BOX, ETC.

PROFILE VIEW



YARD HYDRANT DETAIL
W/DRAIN DOWN PIT
NOT TO SCALE

NOTE: YARD HYDRANT BID ITEM IS TO INCLUDE ALL ITEMS SHOWN IN DETAIL: DRAIN ASSEMBLY, DRAIN PIT, 2.0 SY PCC SLAB, CURB STOP & BOX, ETC.

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

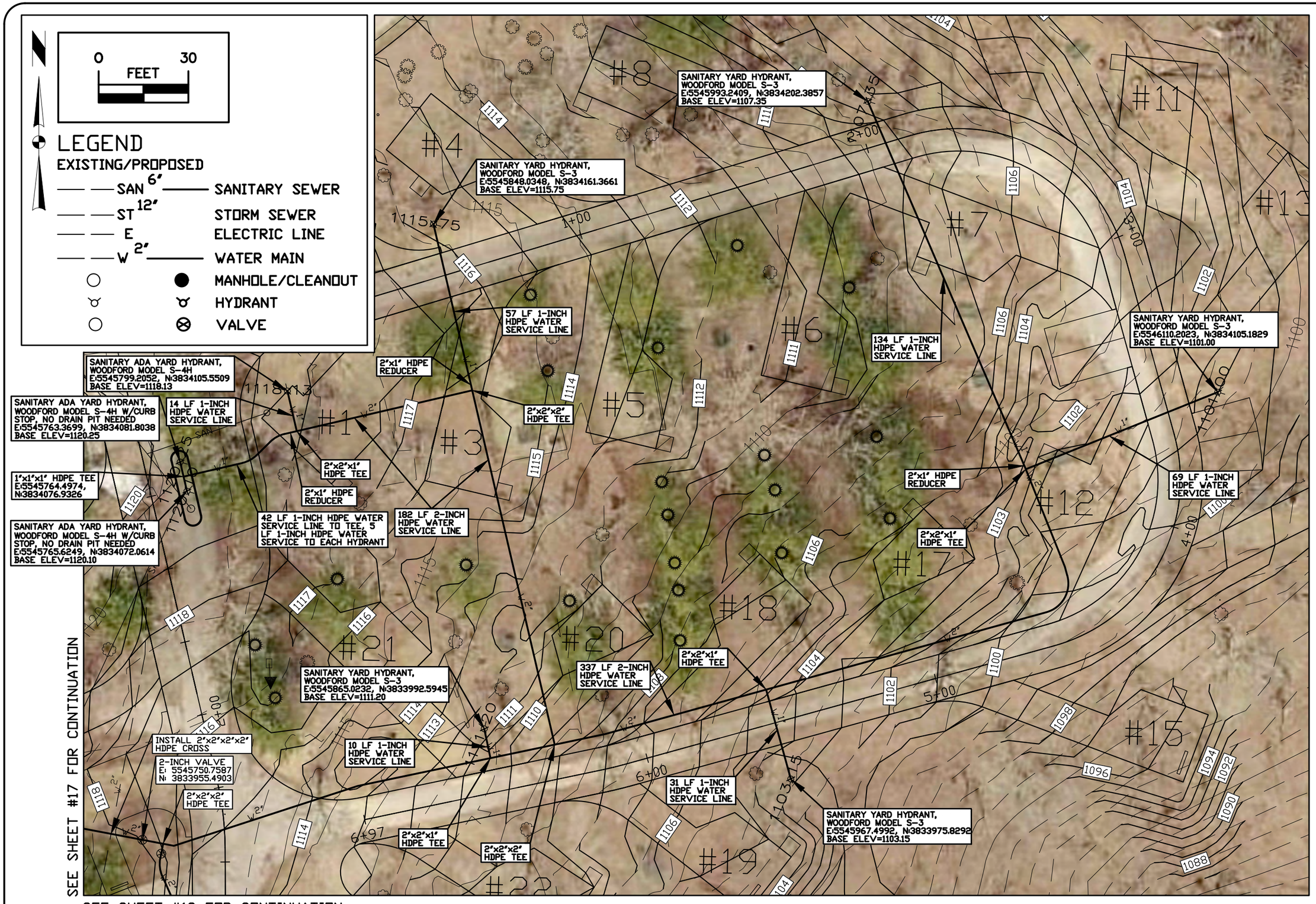
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

WATER PLAN

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 17



CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

WATER PLAN

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:

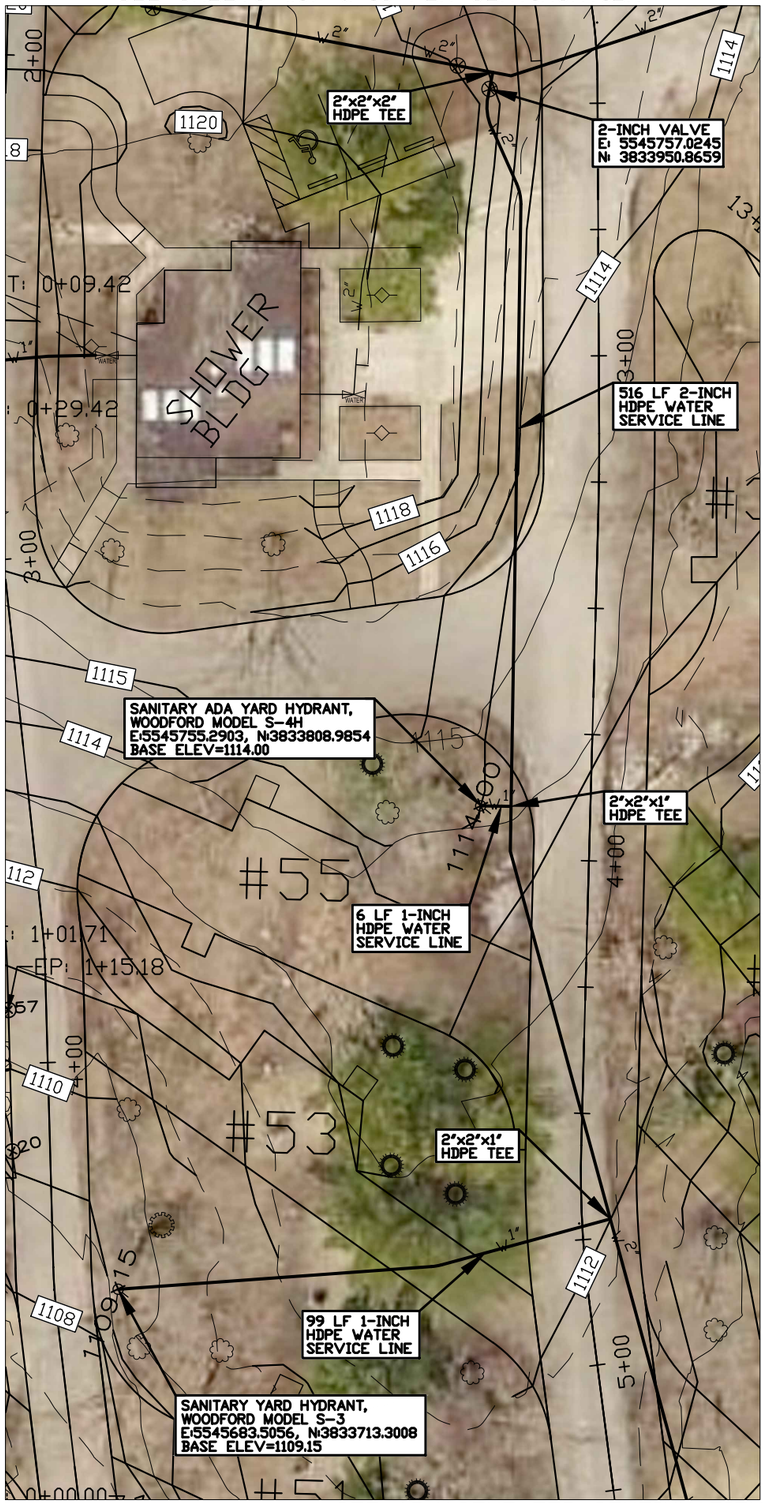
CHK'D BY:

PROJECT NUMBER: 21-03-22-01

DATE: 5/01/2021

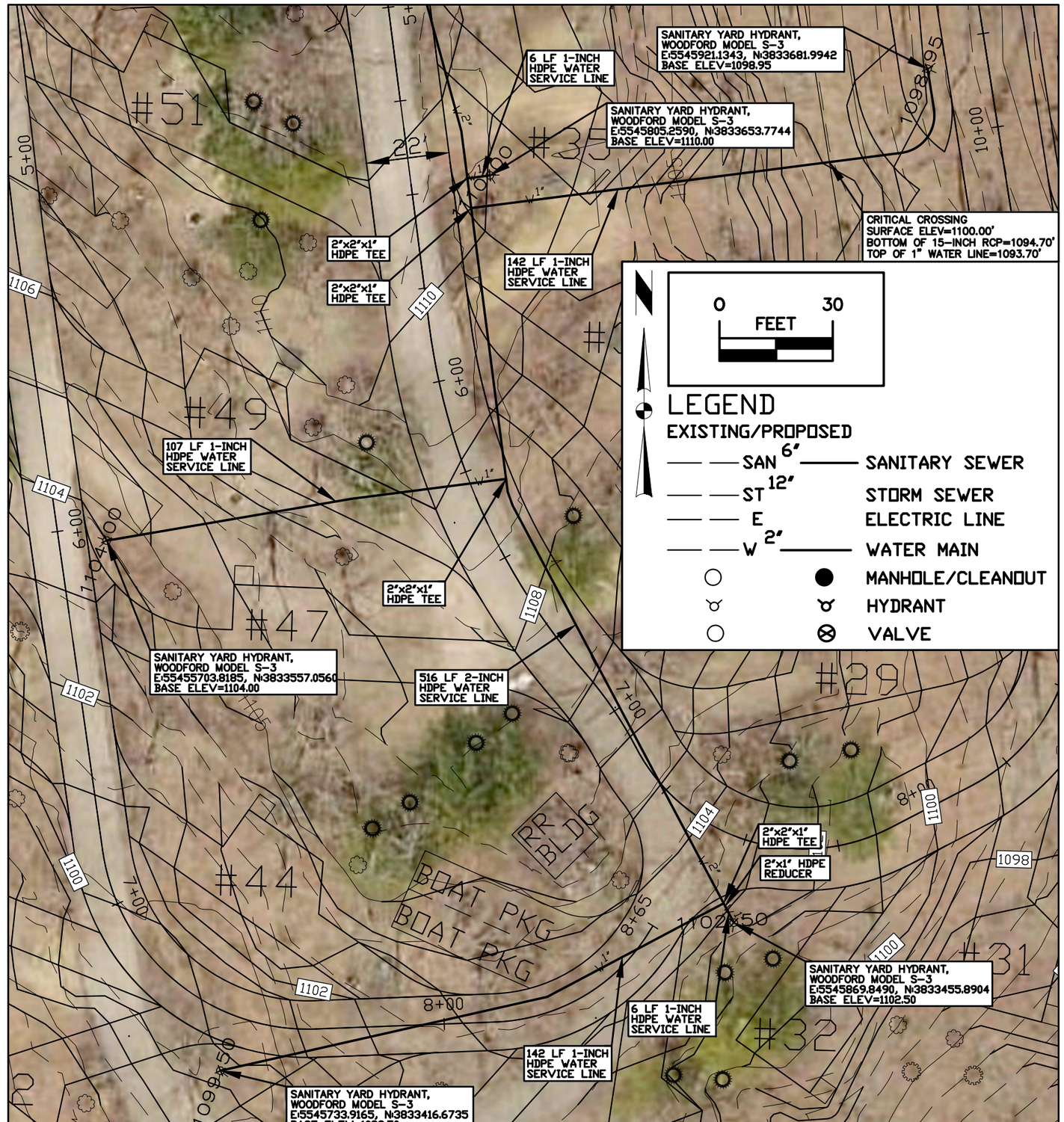
SHEET No: 18

SEE SHEETS #17 & 18 FOR CONTINUATION



SEE ADJACENT FOR CONTINUATION

SEE ADJACENT FOR CONTINUATION



0 30
FEET

LEGEND
EXISTING/PROPOSED

SAN 6"	SANITARY SEWER
ST 12"	STORM SEWER
E	ELECTRIC LINE
W 2"	WATER MAIN
○	● MANHOLE/CLEANOUT
☿	☿ HYDRANT
○	⊗ VALVE

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

WATER PLAN

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY: DATE	REVISION

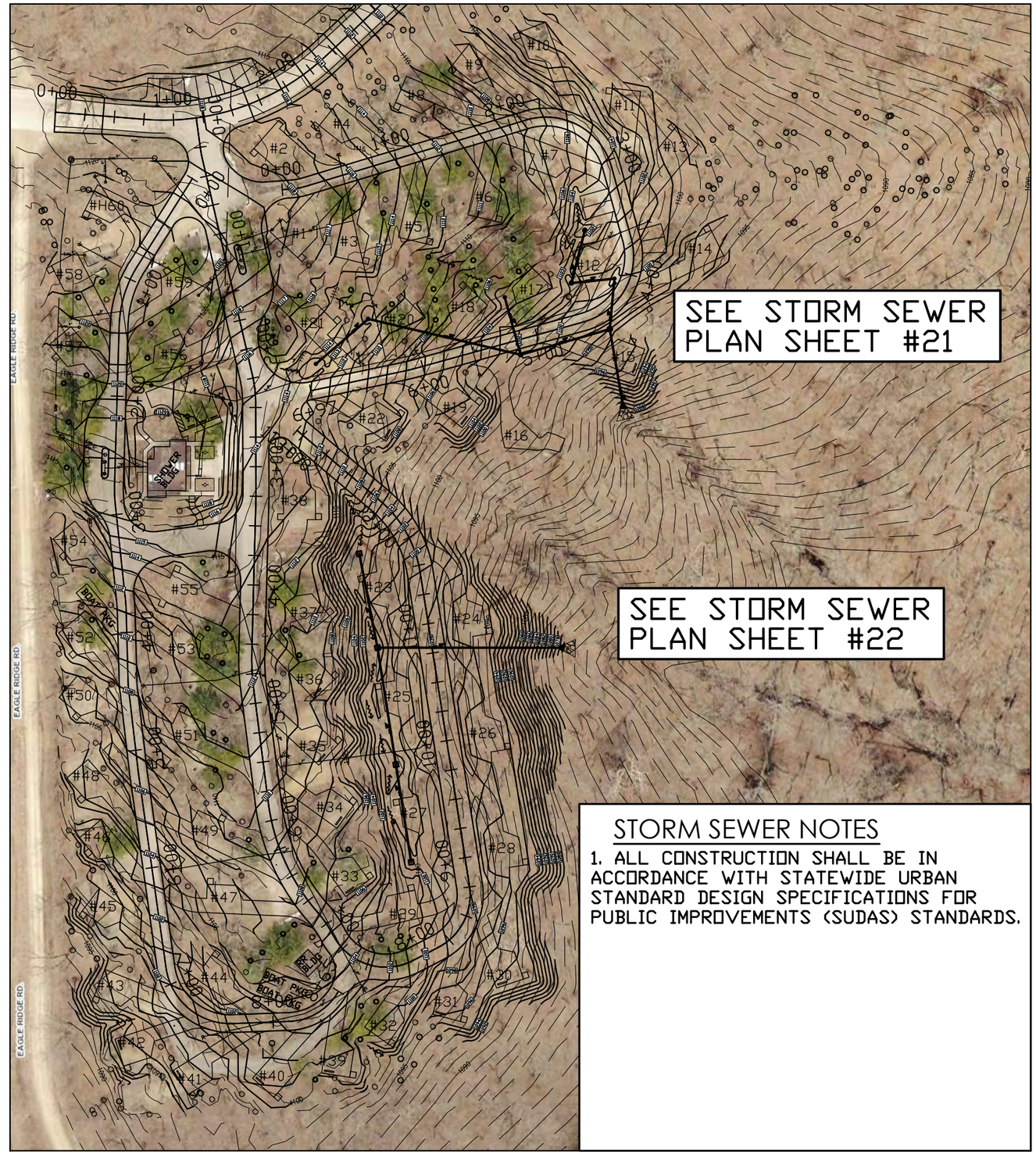
DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 19

LEGEND

EXISTING/PROPOSED

- SAN 8" — SANITARY SEWER
- ST 15" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- MANHOLE/CLEANOUT
- HYDRANT
- VALVE
- INTAKE

0 100
FEET



STORM SEWER NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH STATEWIDE URBAN STANDARD DESIGN SPECIFICATIONS FOR PUBLIC IMPROVEMENTS (SUDAS) STANDARDS.

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

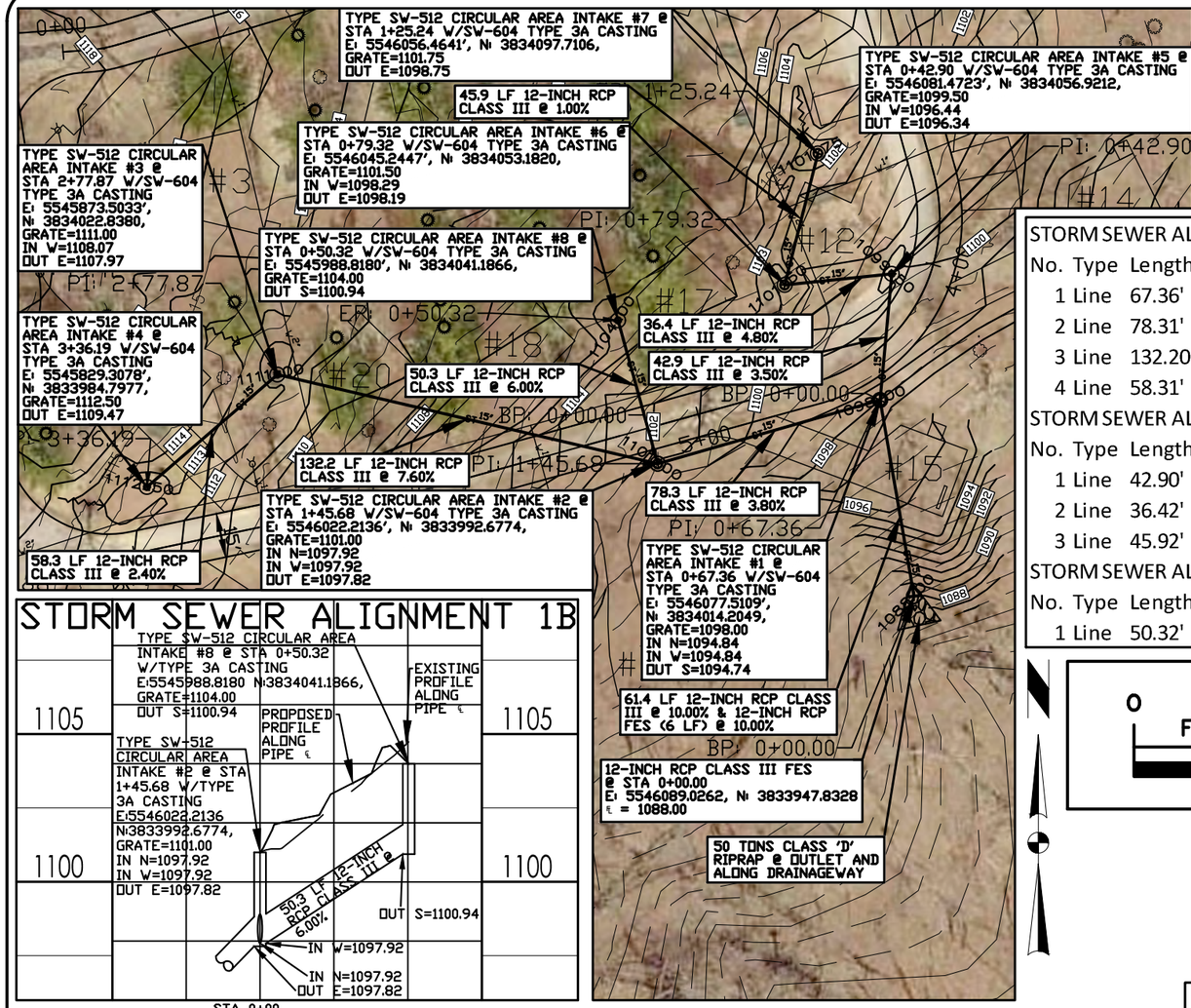
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

OVERALL STORM SEWER PLAN

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
CHK'D BY:
PROJECT NUMBER: 21-03-22-01
DATE: 5/01/2021
SHEET No: 20



LEGEND

EXISTING/PROPOSED		EXISTING/PROPOSED	
—— SAN 8" ——	SANITARY SEWER	○	● MANHOLE/CLEANOUT
—— ST 15" ——	STORM SEWER	☿	☿ HYDRANT
—— E ——	ELECTRIC LINE	○	⊗ VALVE
—— W 2" ——	WATER MAIN		□ INTAKE

STORM SEWER ALIGNMENT 1

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	67.36'	N9° 50' 33"W	0+00.00'	0+67.36'	(5546089.0262',3833947.8328')	(5546077.5109',3834014.2049')
2	Line	78.31'	S74° 02' 41"W	0+67.36'	1+45.68'	(5546077.5109',3834014.2049')	(5546002.2136',3833992.6774')
3	Line	132.20'	N76° 48' 43"W	1+45.68'	2+77.87'	(5546002.2136',3833992.6774')	(5545873.5033',3834022.8380')
4	Line	58.31'	S49° 16' 50"W	2+77.87'	3+36.19'	(5545873.5033',3834022.8380')	(5545829.3078',3833984.7977')

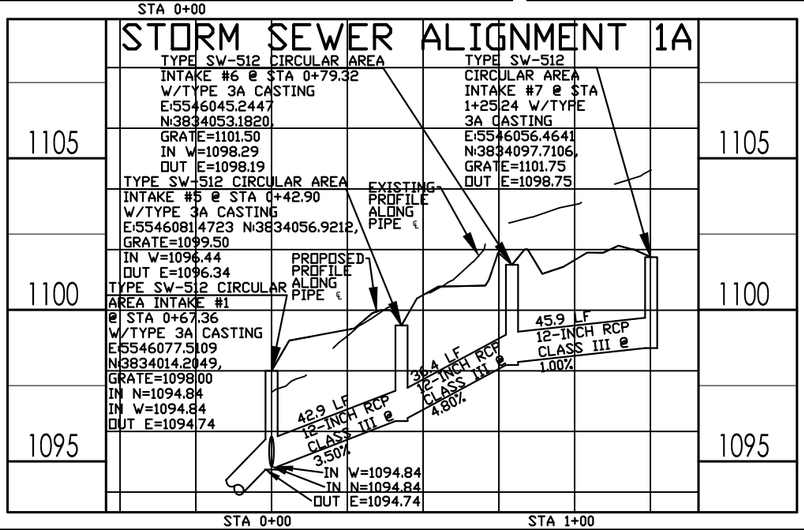
STORM SEWER ALIGNMENT 1A

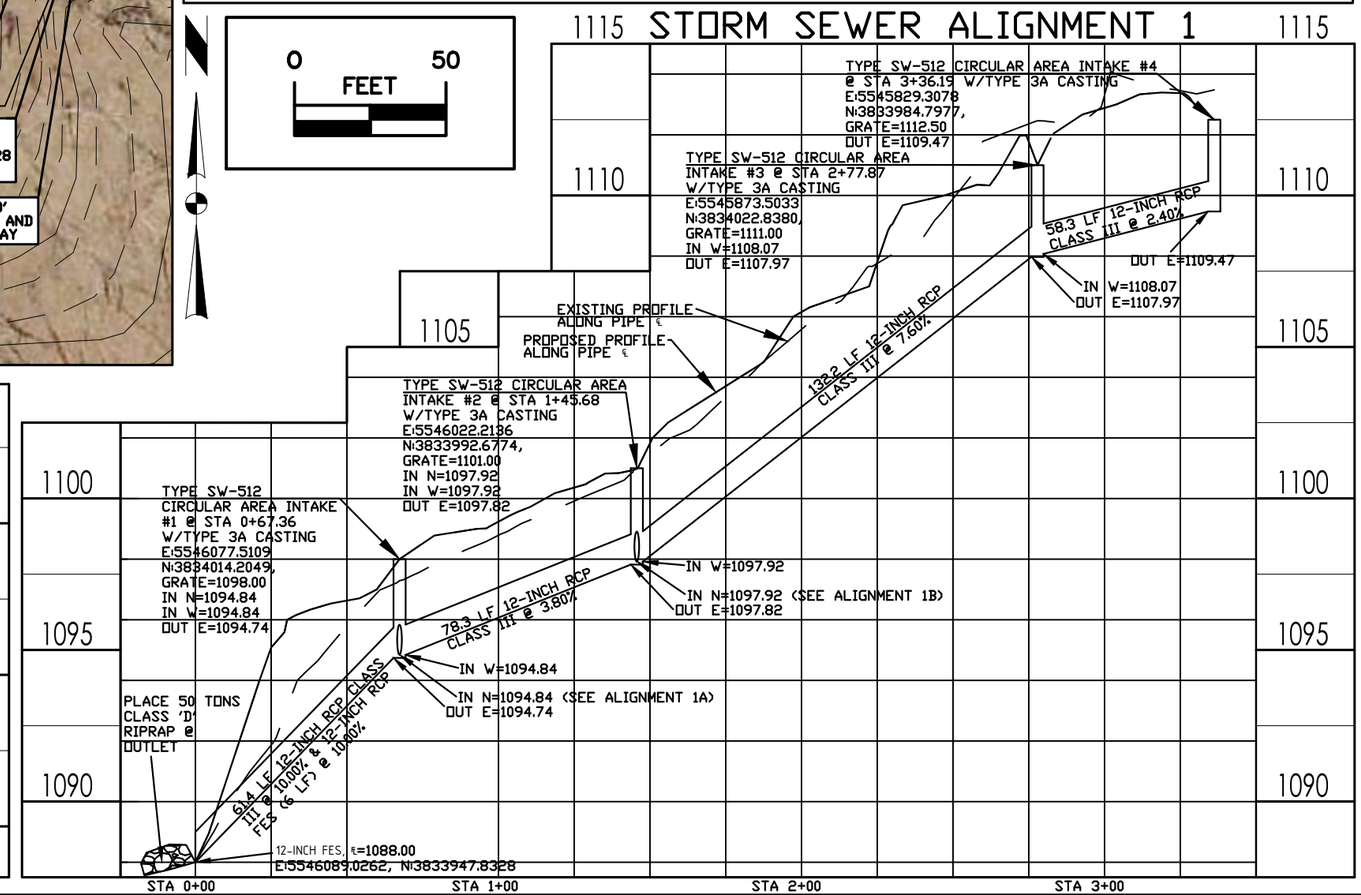
No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	42.90'	N5° 17' 54"E	0+00.00'	0+42.90'	(5546077.5109',3834014.2049')	(5546081.4723',3834056.9212')
2	Line	36.42'	S84° 06' 25"W	0+42.90'	0+79.32'	(5546081.4723',3834056.9212')	(5546045.2447',3834053.1820')
3	Line	45.92'	N14° 08' 30"E	0+79.32'	1+25.24'	(5546045.2447',3834053.1820')	(5546056.4641',3834097.7106')

STORM SEWER ALIGNMENT 1B

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	50.32'	N15° 26' 14"W	0+00.00'	0+50.32'	(5546002.2136',3833992.6774')	(5545988.8180',3834041.1866')

0 FEET 50





CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

STORM SEWER PLAN

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 21

LEGEND

EXISTING/PROPOSED		EXISTING/PROPOSED	
—— ——SAN 8"——	SANITARY SEWER	○	● MANHOLE/CLEANOUT
—— ——ST 15"——	STORM SEWER	☿	☿ HYDRANT
—— —— E	ELECTRIC LINE	○	⊗ VALVE
—— ——W 2"——	WATER MAIN		□ INTAKE

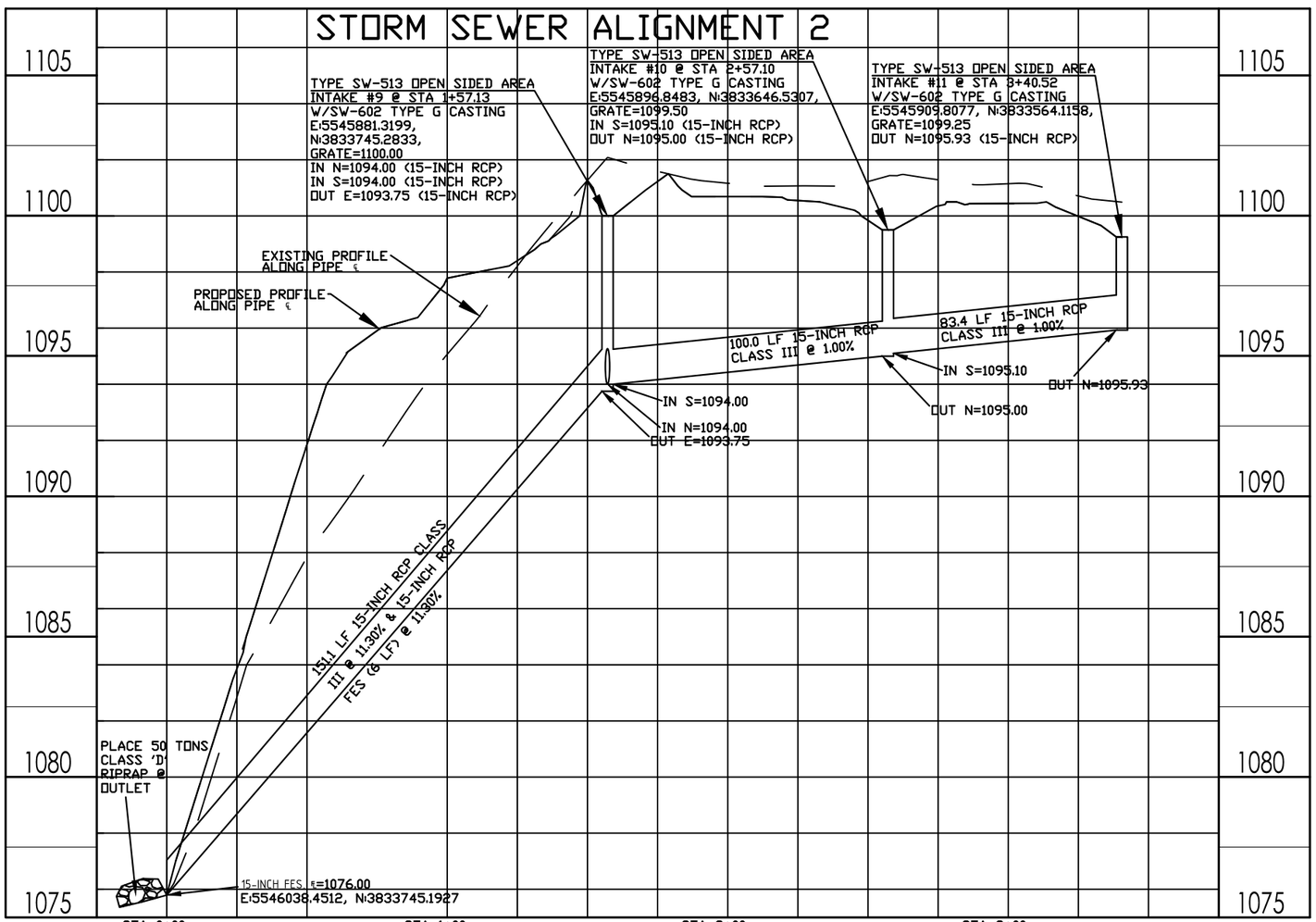
0 FEET 50

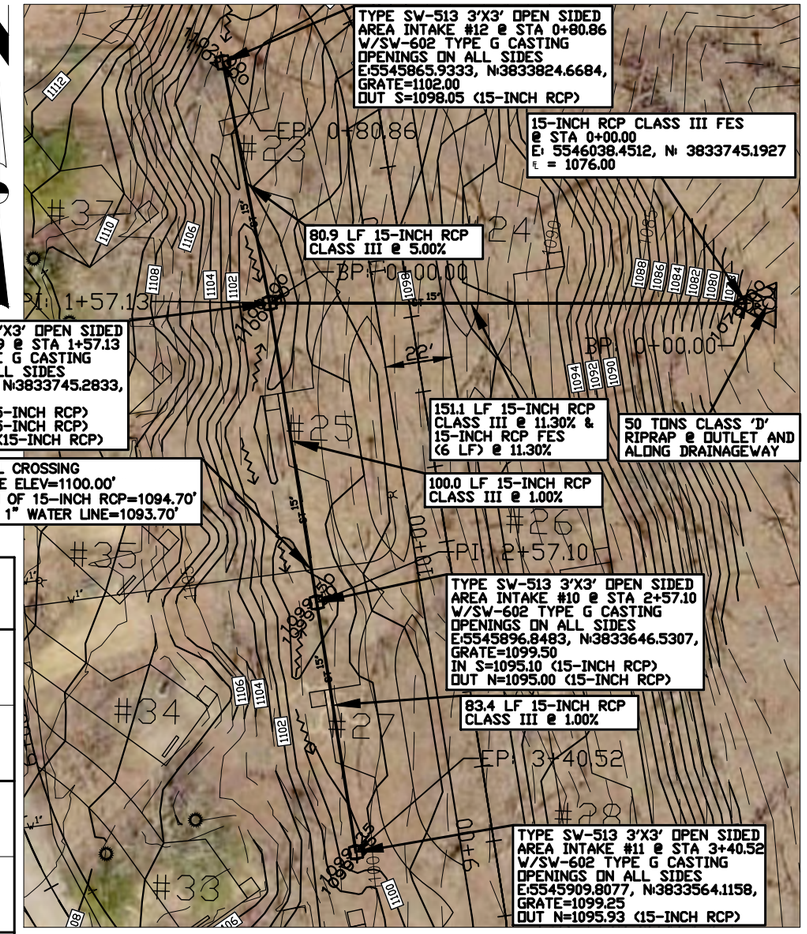
STORM SEWER ALIGNMENT 2

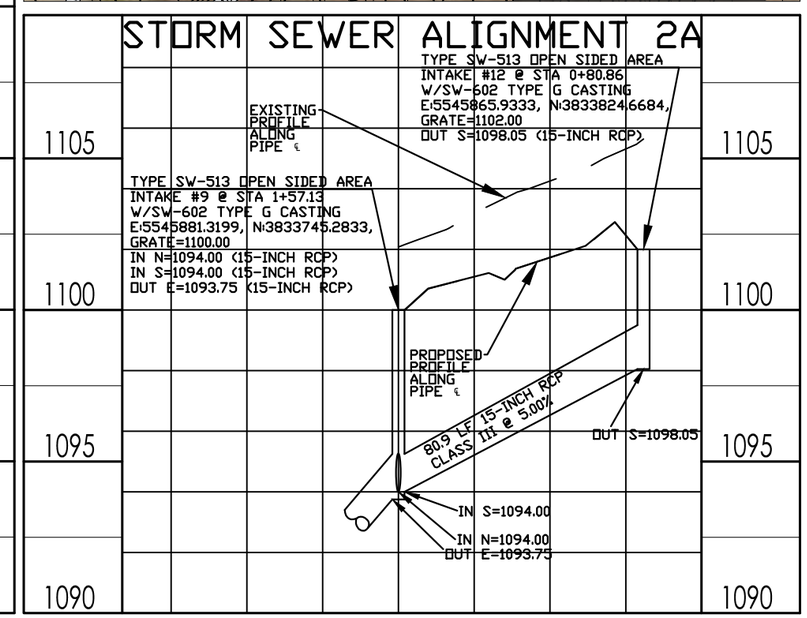
No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	157.13'	N89° 58' 01"W	0+00.00'	1+57.13'	(5546038.4512',3833745.1927')	(5545881.3199',3833745.2833')
2	Line	99.97'	S8° 56' 11"E	1+57.13'	2+57.10'	(5545881.3199',3833745.2833')	(5545896.8483',3833646.5307')
3	Line	83.43'	S8° 56' 11"E	2+57.10'	3+40.52'	(5545896.8483',3833646.5307')	(5545909.8077',3833564.1158')

STORM SEWER ALIGNMENT 2A

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	80.86'	N10° 58' 09"W	0+00.00'	0+80.86'	(5545881.3199',3833745.2833')	(5545865.9333',3833824.6684')







CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

STORM SEWER PLAN

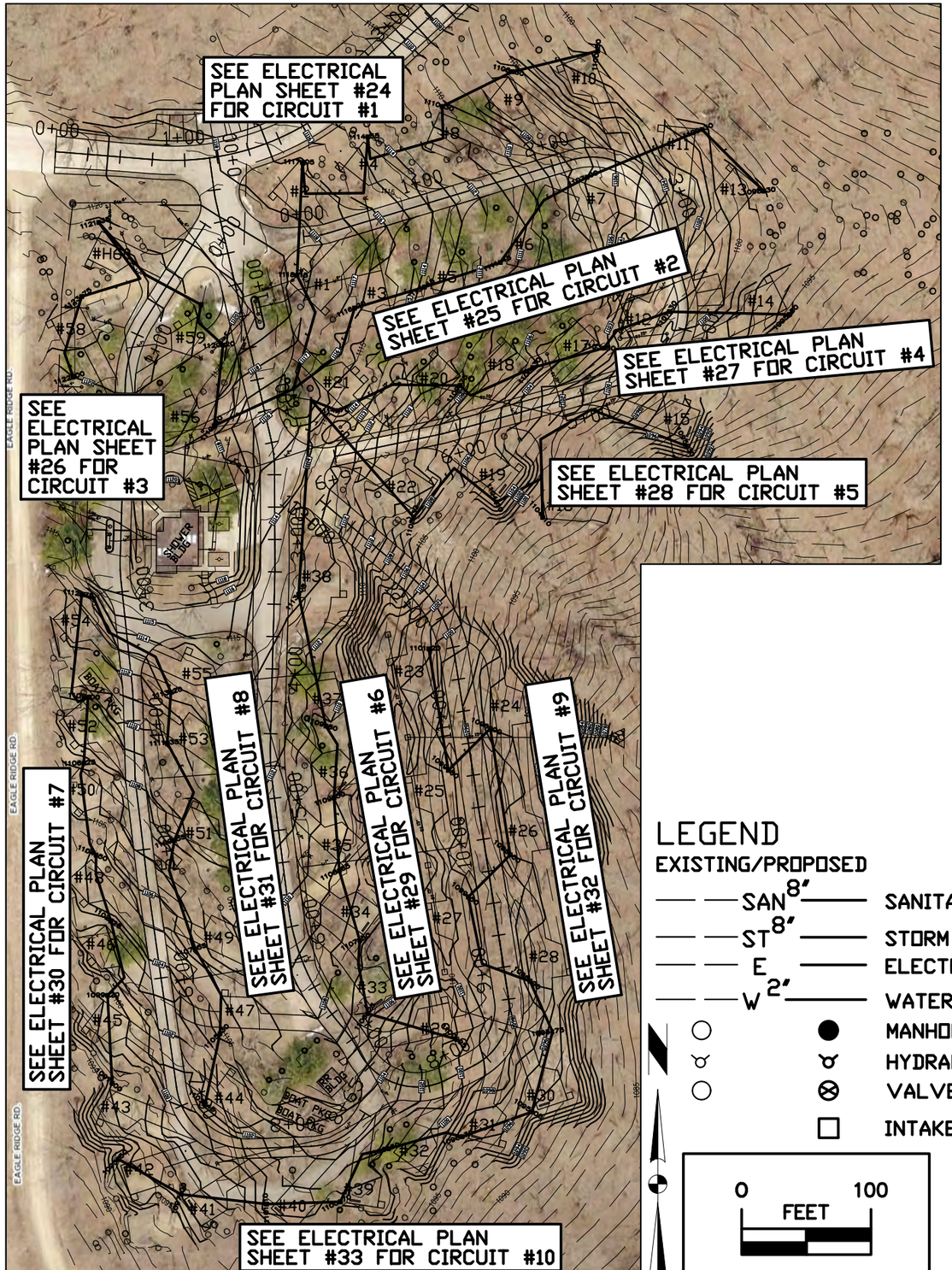
CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY DATE	REVISION

DRAWN BY:
CHK'D BY:
PROJECT NUMBER: 21-03-22-01
DATE: 5/01/2021
SHEET No: 22



LEGEND

EXISTING/PROPOSED

SAN 8"	SANITARY SEWER
ST 8"	STORM SEWER
E	ELECTRIC LINE
W 2"	WATER MAIN
○ ●	MANHOLE/CLEANOUT
♂ ♂	HYDRANT
○ ⊗	VALVE
□	INTAKE

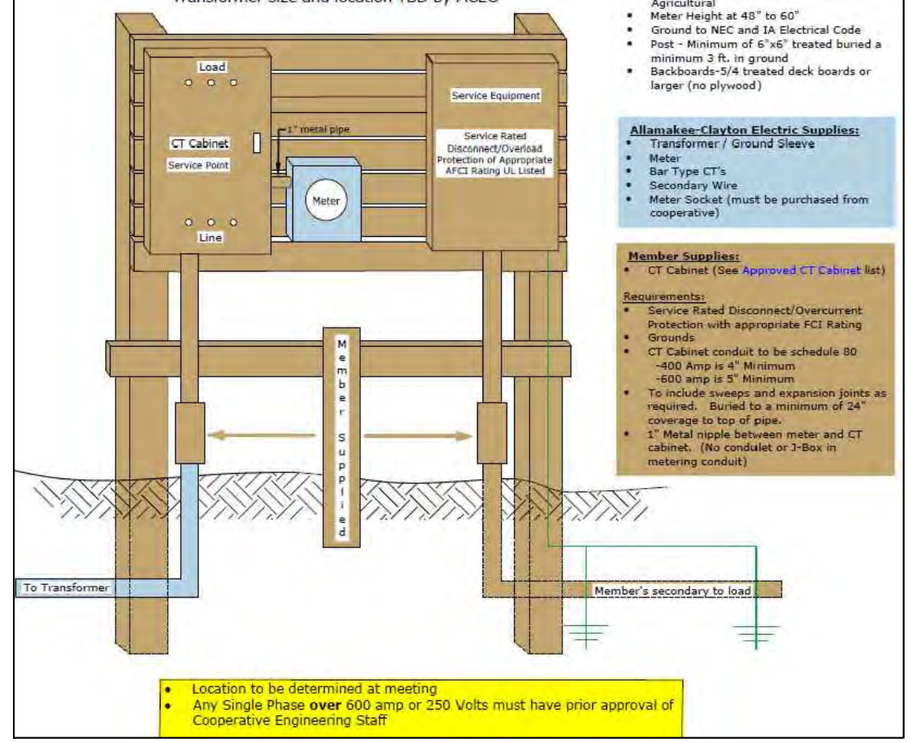
0 100
FEET

ALLAMAKEE-CLAYTON ELECTRIC COOPERATIVE, INC.

Wiring/Service Specifications and Recommendations

Phone: 1-888-788-1551 or 563-864-7611

400 to 600 Amp Single Phase
120 / 240 Volt



- All equipment rated over 320 Amps shall be CT metered
- Minimum of 30 feet from Transformer if Agricultural
- Meter Height at 48" to 60"
- Ground to NEC and IA Electrical Code
- Post - Minimum of 6"x6" treated buried a minimum 3 ft. in ground
- Backboards-5/4 treated deck boards or larger (no plywood)

Allamakee-Clayton Electric Supplies:
- Transformer / Ground Sleeve
- Meter
- Bar Type CT's
- Secondary Wire
- Meter Socket (must be purchased from cooperative)

Member Supplies:
- CT Cabinet (See Approved CT Cabinet list)

Requirements:
- Service Rated Disconnect/Overcurrent Protection with appropriate FCI Rating
- Grounds
- CT Cabinet conduit to be schedule 80
  - -400 Amp is 4" Minimum
  - -600 amp is 5" Minimum
- To include sweeps and expansion joints as required. Buried to a minimum of 24" coverage to top of pipe.
- 1" Metal nipple between meter and CT cabinet. (No condulet or J-Box in metering conduit)

- Location to be determined at meeting
- Any Single Phase **over** 600 amp or 250 Volts must have prior approval of Cooperative Engineering Staff

ELECTRIC CONSTRUCTION NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2020 NEC CODE FOR CONSTRUCTION.
2. ELECTRICAL CONTRACTOR TO COORDINATE CONSTRUCTION AND RESPONSIBILITIES WITH ALLAMAKEE-CLAYTON COUNTY REC.
3. ELECTRICAL CONTRACTOR TO PROVIDE ALL SERVICES AND MATERIALS NECESSARY FOR PROVIDING POWER TO THE DISTRIBUTION PANELS, THIS INCLUDES BUT IS NOT LIMITED TO TRENCHING, CONDUITS, CABLES, CONCRETE TRANSFORMER PADS, METER, ETC. THERE IS A LUMP SUM BID ITEM: 'PRIMARY ELECTRIC SERVICE TO DISTRIBUTION PANELS' FOR THESE COSTS.
4. CONSISTENTLY THROUGHOUT THE PROJECT, THE PHASE 'A' CONDUCTOR, THE PHASE 'B' CONDUCTOR, AND THE NEUTRAL CONDUCTOR SHALL BE DISTINGUISHED FROM EACH OTHER BY COLOR CODING, OR BY SURFACE DEFORMATIONS OR OTHER MARKINGS IN THE CONDUCTOR INSULATION. THE GROUND CONDUCTORS SHALL HAVE GREEN COLORED INSULATION.
5. THE CONDUCTOR SIZES AND THE PLAN ARRANGEMENT OF THE LOADS ON EACH CIRCUIT WERE SELECTED TO LIMIT THE MAXIMUM CIRCUIT VOLTAGE DROP, FROM THE TRANSFORMER TO THE FURTHEST CAMPSITE OUTLET ON THE CIRCUIT, TO 3% (3.6 VOLTS ON EACH 120V PHASE).
6. ALL CONDUCTORS SHALL BE COPPER.

CONSULTANT:

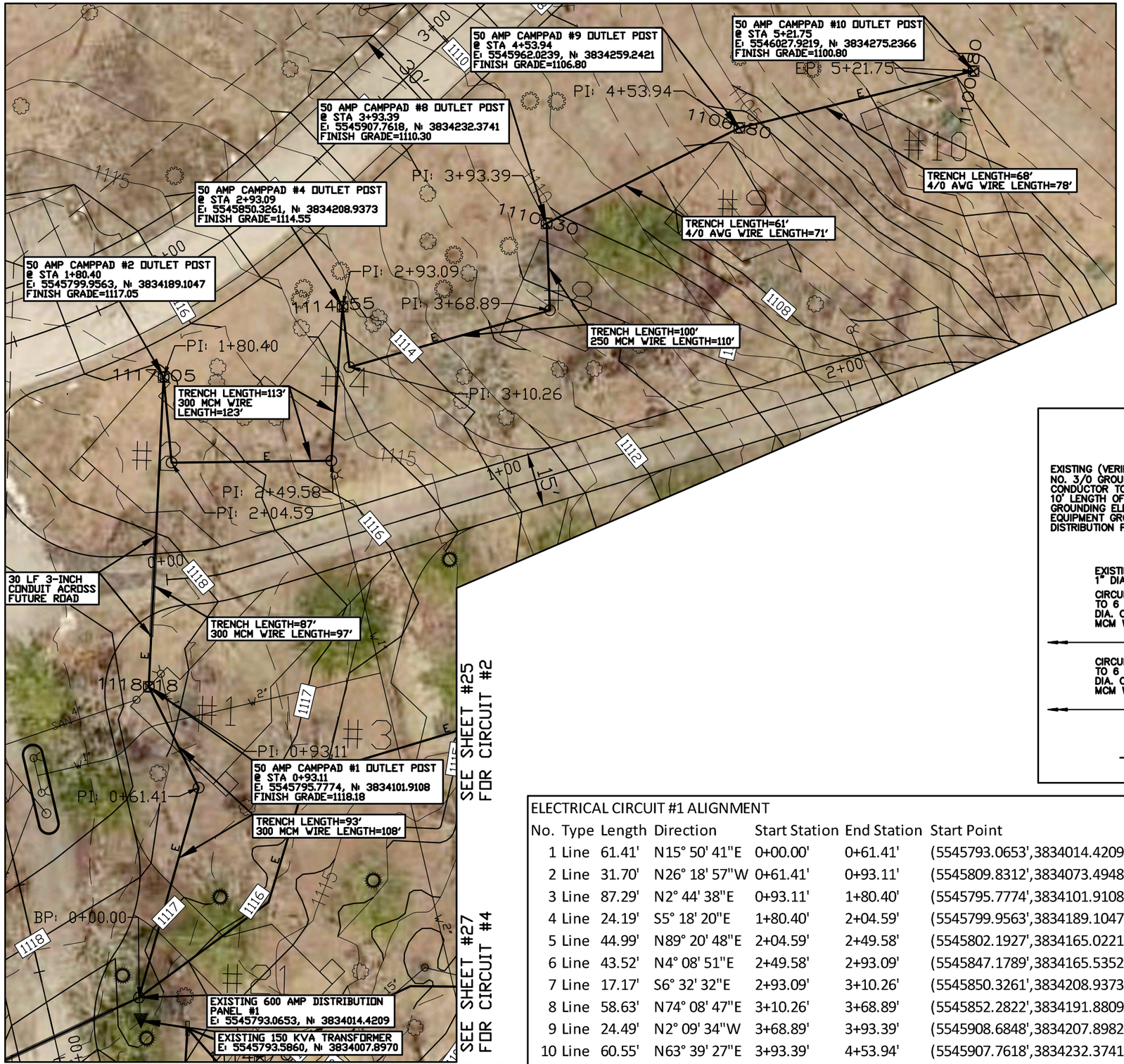
IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

OVERALL ELECTRICAL PLAN

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

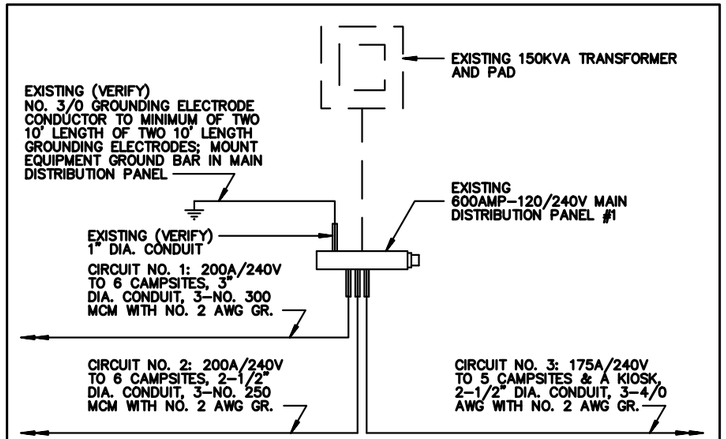
DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 23



0 30
FEET

LEGEND
EXISTING/PROPOSED

- SAN 6" — SANITARY SEWER
- ST 12" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- MANHOLE/CLEANOUT
- HYDRANT
- VALVE
- INTAKE



PLAN DETAIL
MAIN DISTRIBUTION PANEL NO. 1
NOT TO SCALE

ELECTRICAL CIRCUIT #1 ALIGNMENT

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point	Camppad #
1	Line	61.41'	N15° 50' 41"E	0+00.00'	0+61.41'	(5545793.0653',3834014.4209')	(5545809.8312',3834073.4948')	
2	Line	31.70'	N26° 18' 57"W	0+61.41'	0+93.11'	(5545809.8312',3834073.4948')	(5545795.7774',3834101.9108')	1
3	Line	87.29'	N2° 44' 38"E	0+93.11'	1+80.40'	(5545795.7774',3834101.9108')	(5545799.9563',3834189.1047')	2
4	Line	24.19'	S5° 18' 20"E	1+80.40'	2+04.59'	(5545799.9563',3834189.1047')	(5545802.1927',3834165.0221')	
5	Line	44.99'	N89° 20' 48"E	2+04.59'	2+49.58'	(5545802.1927',3834165.0221')	(5545847.1789',3834165.5352')	
6	Line	43.52'	N4° 08' 51"E	2+49.58'	2+93.09'	(5545847.1789',3834165.5352')	(5545850.3261',3834208.9373')	4
7	Line	17.17'	S6° 32' 32"E	2+93.09'	3+10.26'	(5545850.3261',3834208.9373')	(5545852.2822',3834191.8809')	
8	Line	58.63'	N74° 08' 47"E	3+10.26'	3+68.89'	(5545852.2822',3834191.8809')	(5545908.6848',3834207.8982')	
9	Line	24.49'	N2° 09' 34"W	3+68.89'	3+93.39'	(5545908.6848',3834207.8982')	(5545907.7618',3834232.3741')	8
10	Line	60.55'	N63° 39' 27"E	3+93.39'	4+53.94'	(5545907.7618',3834232.3741')	(5545962.0239',3834259.2421')	9
11	Line	67.81'	N76° 21' 26"E	4+53.94'	5+21.75'	(5545962.0239',3834259.2421')	(5546027.9219',3834275.2366')	10

CONSULTANT:

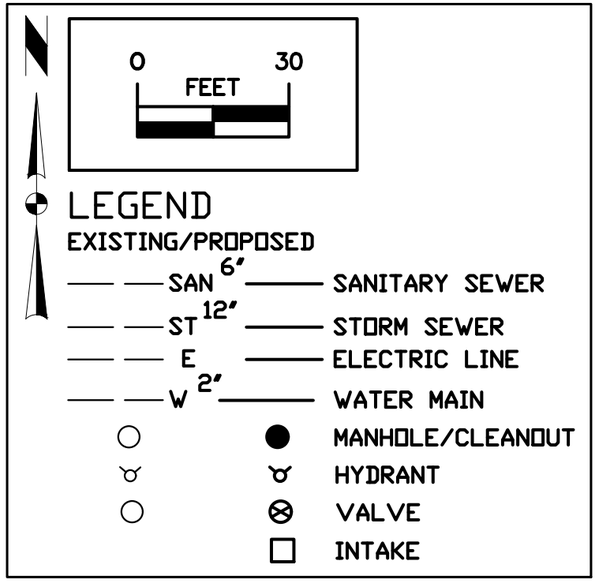
IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

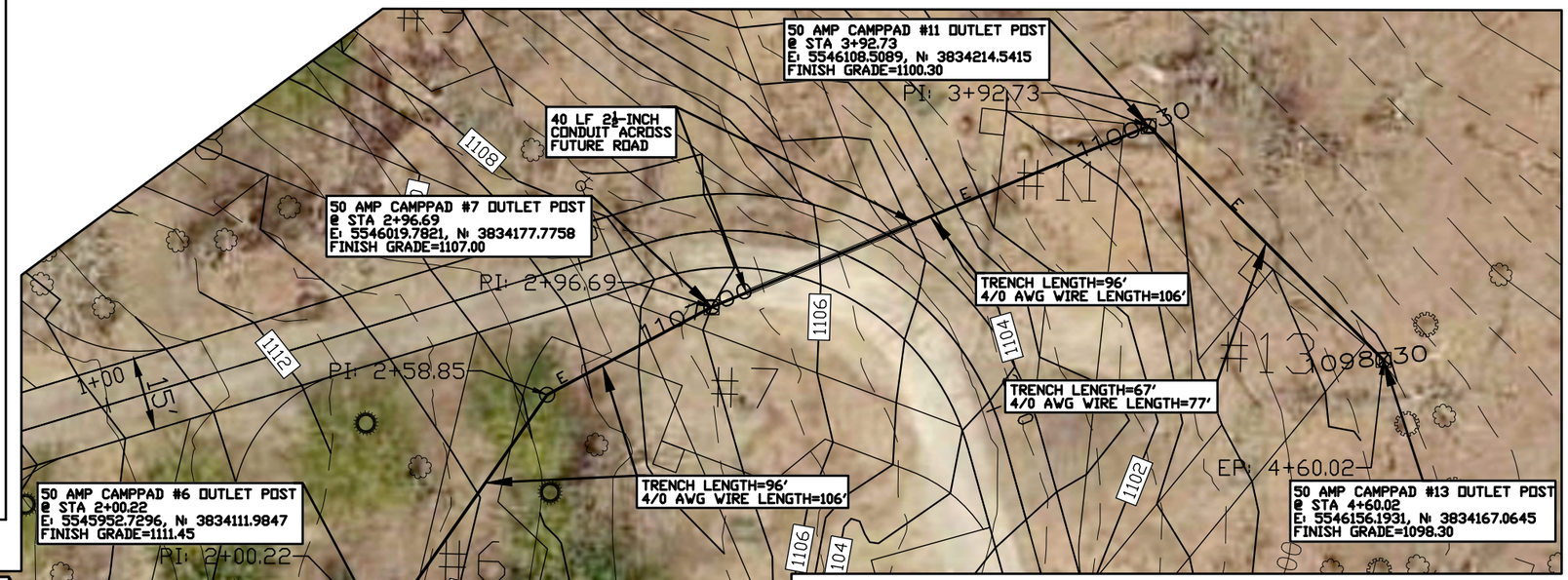
ELECTRICAL PLAN CIRCUIT #1

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

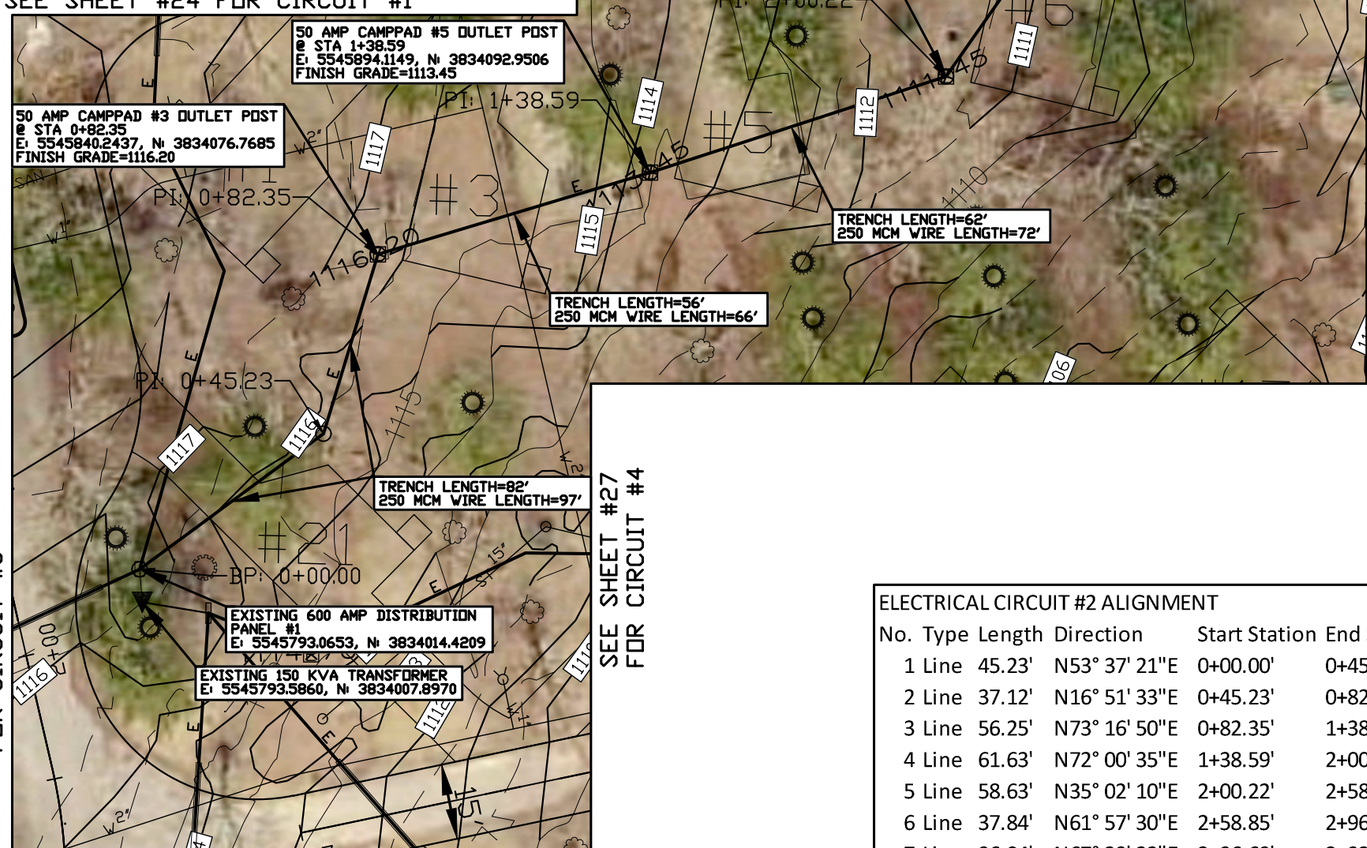
NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 24





SEE SHEET #24 FOR CIRCUIT #1

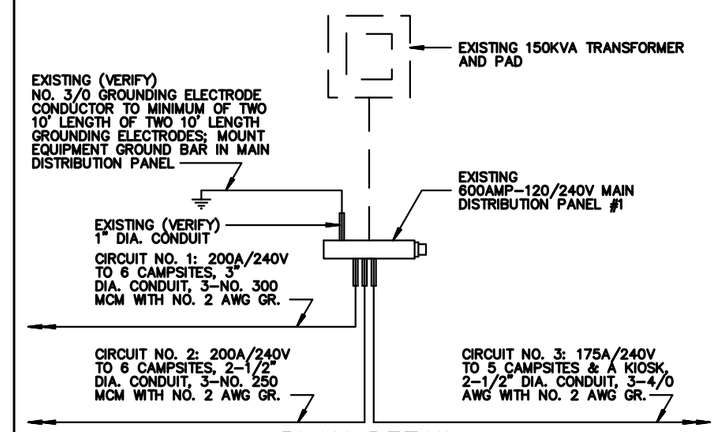


SEE SHEET #26 FOR CIRCUIT #3

SEE SHEET #27 FOR CIRCUIT #4

SEE SHEET #29 FOR CIRCUIT #6

SEE SHEET #28 FOR CIRCUIT #5



PLAN DETAIL

MAIN DISTRIBUTION PANEL NO. 1

NOT TO SCALE

ELECTRICAL CIRCUIT #2 ALIGNMENT

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point	Camppad #
1	Line	45.23'	N53° 37' 21"E	0+00.00'	0+45.23'	(5545793.0653',3834014.4209')	(5545829.4784',3834041.2448')	
2	Line	37.12'	N16° 51' 33"E	0+45.23'	0+82.35'	(5545829.4784',3834041.2448')	(5545840.2437',3834076.7685')	3
3	Line	56.25'	N73° 16' 50"E	0+82.35'	1+38.59'	(5545840.2437',3834076.7685')	(5545894.1149',3834092.9506')	5
4	Line	61.63'	N72° 00' 35"E	1+38.59'	2+00.22'	(5545894.1149',3834092.9506')	(5545952.7296',3834111.9847')	6
5	Line	58.63'	N35° 02' 10"E	2+00.22'	2+58.85'	(5545952.7296',3834111.9847')	(5545986.3868',3834159.9879')	
6	Line	37.84'	N61° 57' 30"E	2+58.85'	2+96.69'	(5545986.3868',3834159.9879')	(5546019.7821',3834177.7758')	7
7	Line	96.04'	N67° 29' 33"E	2+96.69'	3+92.73'	(5546019.7821',3834177.7758')	(5546108.5089',3834214.5415')	11
8	Line	67.29'	S45° 07' 29"E	3+92.73'	4+60.02'	(5546108.5089',3834214.5415')	(5546156.1931',3834167.0645')	13

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

ELECTRICAL PLAN CIRCUIT #2

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY DATE	REVISION

DRAWN BY:

PROJECT NUMBER: 21-03-22-01

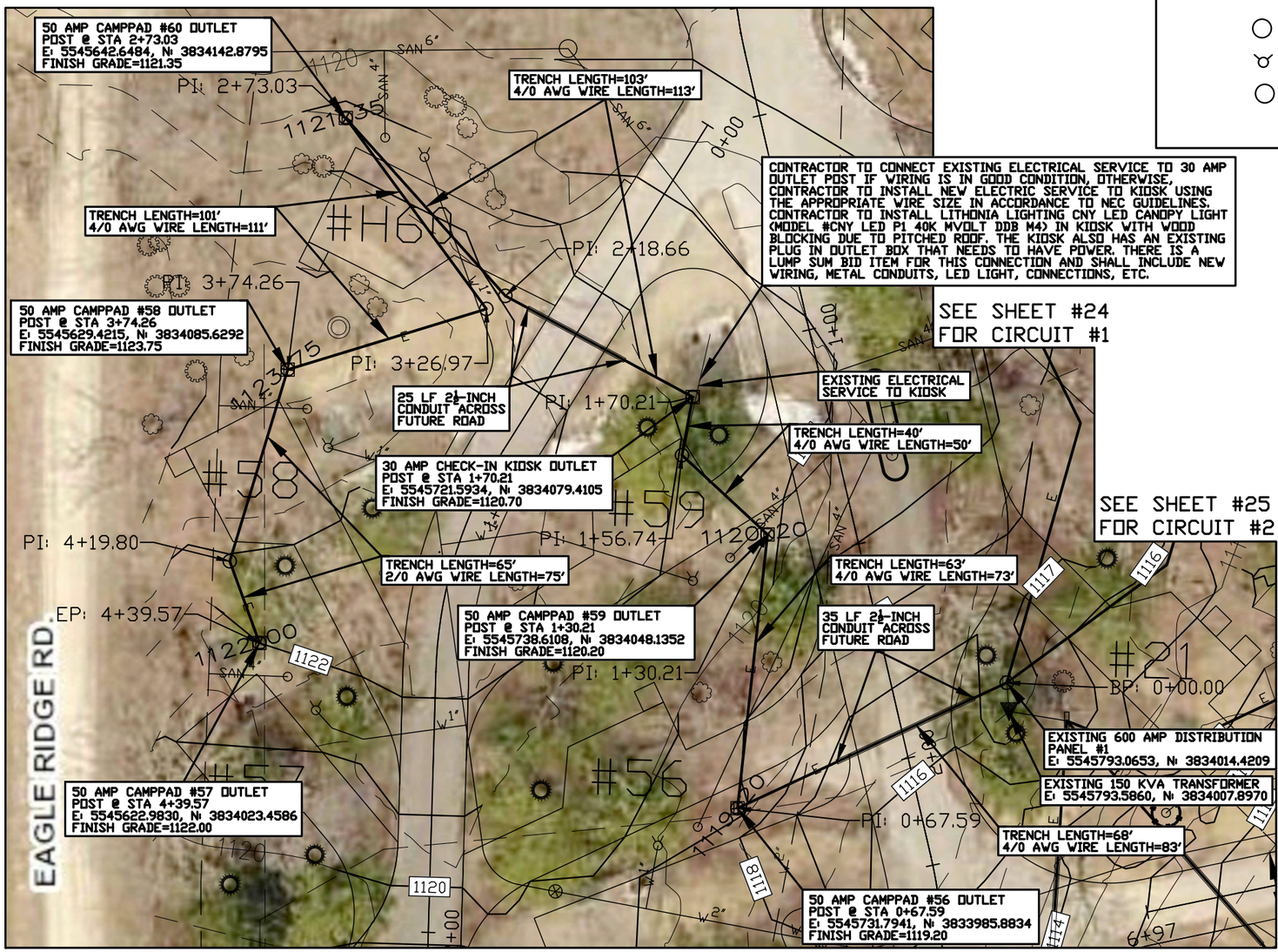
CHK'D BY:

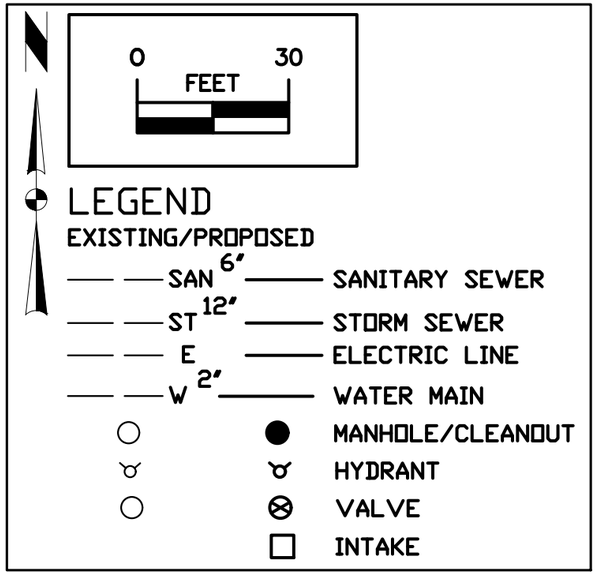
DATE: 5/01/2021

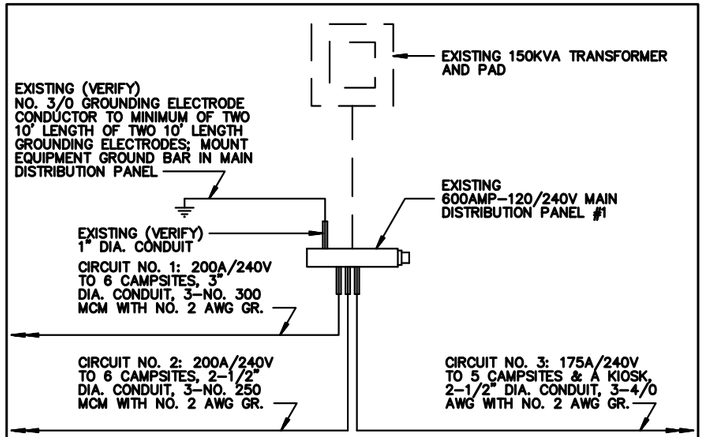
SHEET No: 25

ELECTRICAL CIRCUIT #3 ALIGNMENT

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point	
1	Line	67.59'	S65° 01' 33"W	0+00.00'	0+67.59'	(5545793.0653',3834014.4209')	(5545731.7941',3833985.8834')	56
2	Line	62.62'	N6° 14' 57"E	0+67.59'	1+30.21'	(5545731.7941',3833985.8834')	(5545738.6108',3834048.1352')	59
3	Line	26.52'	N47° 11' 38"W	1+30.21'	1+56.74'	(5545738.6108',3834048.1352')	(5545719.1529',3834066.1573')	
4	Line	13.48'	N10° 26' 02"E	1+56.74'	1+70.21'	(5545719.1529',3834066.1573')	(5545721.5934',3834079.4105')	KIOSK
5	Line	48.45'	N61° 39' 31"W	1+70.21'	2+18.66'	(5545721.5934',3834079.4105')	(5545678.9546',3834102.4089')	
6	Line	54.37'	N41° 53' 43"W	2+18.66'	2+73.03'	(5545678.9546',3834102.4089')	(5545642.6484',3834142.8795')	60
7	Line	53.94'	S36° 22' 39"E	2+73.03'	3+26.97'	(5545642.6484',3834142.8795')	(5545674.6427',3834099.4479')	
8	Line	47.29'	S73° 00' 28"W	3+26.97'	3+74.26'	(5545674.6427',3834099.4479')	(5545629.4215',3834085.6292')	58
9	Line	45.54'	S16° 50' 01"W	3+74.26'	4+19.80'	(5545629.4215',3834085.6292')	(5545616.2333',3834042.0398')	
10	Line	19.77'	S19° 57' 49"E	4+19.80'	4+39.57'	(5545616.2333',3834042.0398')	(5545622.9830',3834023.4586')	57







PLAN DETAIL
MAIN DISTRIBUTION PANEL NO. 1
NOT TO SCALE

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

ELECTRICAL PLAN CIRCUIT #3

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 26

0 30
FEET

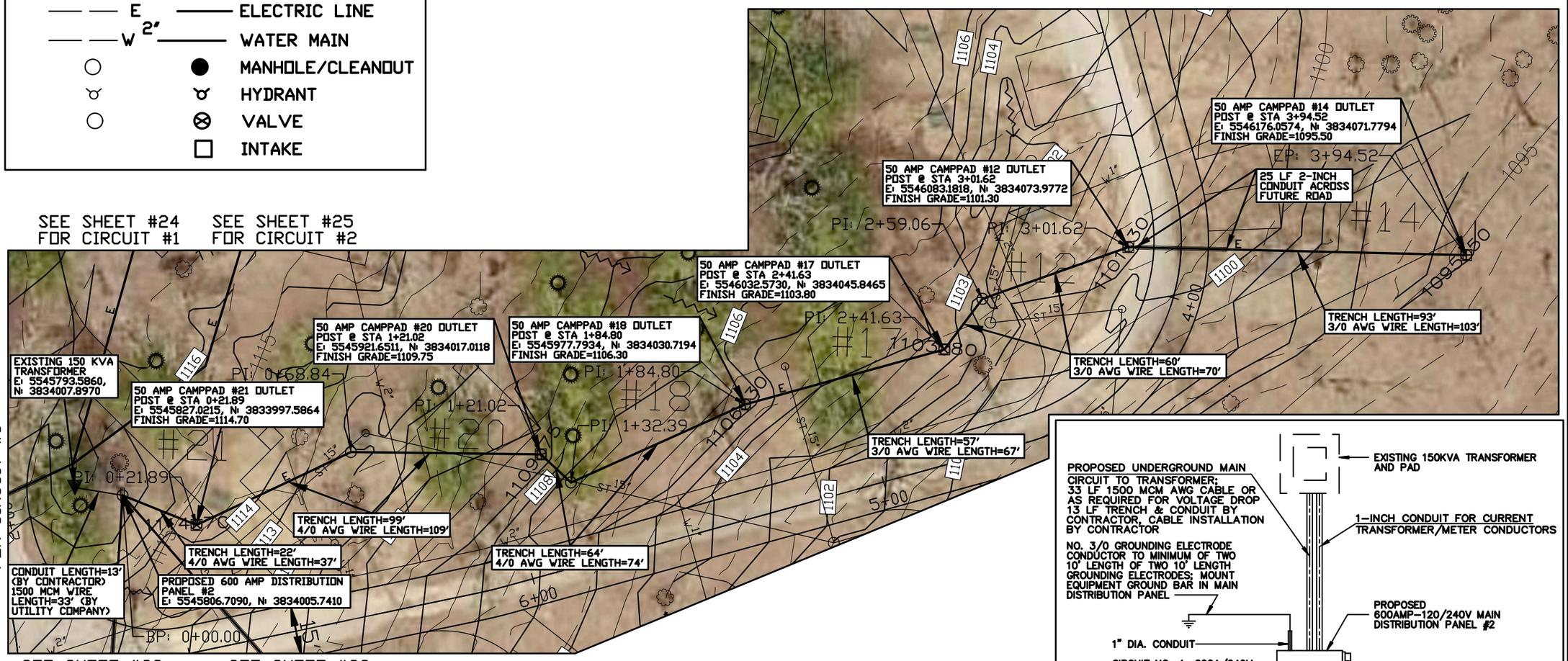
LEGEND

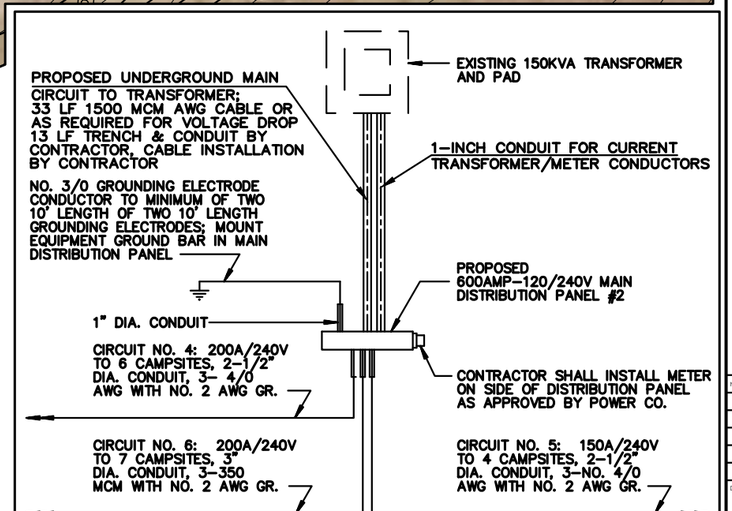
EXISTING/PROPOSED

- SAN 6" — SANITARY SEWER
- ST 12" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- MANHOLE/CLEANOUT
- HYDRANT
- VALVE
- INTAKE

ELECTRICAL CIRCUIT #4 ALIGNMENT

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point	Camppad #
1	Line	21.89'	S68° 07' 36"E	0+00.00'	0+21.89'	(5545806.7090',3834005.7410')	(5545827.0215',3833997.5864')	21
2	Line	46.96'	N64° 43' 11"E	0+21.89'	0+68.84'	(5545827.0215',3833997.5864')	(5545869.4798',3834017.6385')	
3	Line	52.18'	S89° 18' 42"E	0+68.84'	1+21.02'	(5545869.4798',3834017.6385')	(5545921.6511',3834017.0118')	20
4	Line	11.37'	S47° 04' 00"E	1+21.02'	1+32.39'	(5545921.6511',3834017.0118')	(5545929.9781',3834009.2649')	
5	Line	52.41'	N65° 50' 04"E	1+32.39'	1+84.80'	(5545929.9781',3834009.2649')	(5545977.7934',3834030.7194')	18
6	Line	56.83'	N74° 33' 46"E	1+84.80'	2+41.63'	(5545977.7934',3834030.7194')	(5546032.5730',3834045.8465')	17
7	Line	17.43'	N37° 01' 19"E	2+41.63'	2+59.06'	(5546032.5730',3834045.8465')	(5546043.0703',3834059.7657')	
8	Line	42.55'	N70° 29' 27"E	2+59.06'	3+01.62'	(5546043.0703',3834059.7657')	(5546083.1818',3834073.9772')	12
9	Line	92.90'	S88° 38' 40"E	3+01.62'	3+94.52'	(5546083.1818',3834073.9772')	(5546176.0574',3834071.7794')	14





PLAN DETAIL
MAIN DISTRIBUTION PANEL NO. 2
NOT TO SCALE

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

ELECTRICAL PLAN CIRCUIT #4

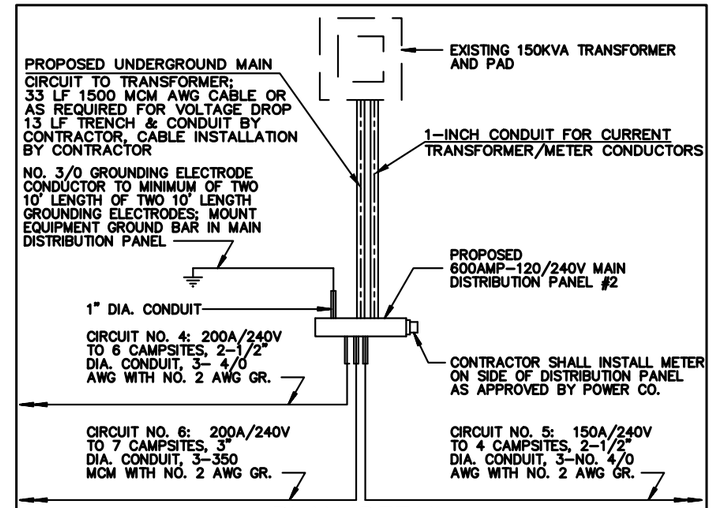
CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY	DATE	REVISION

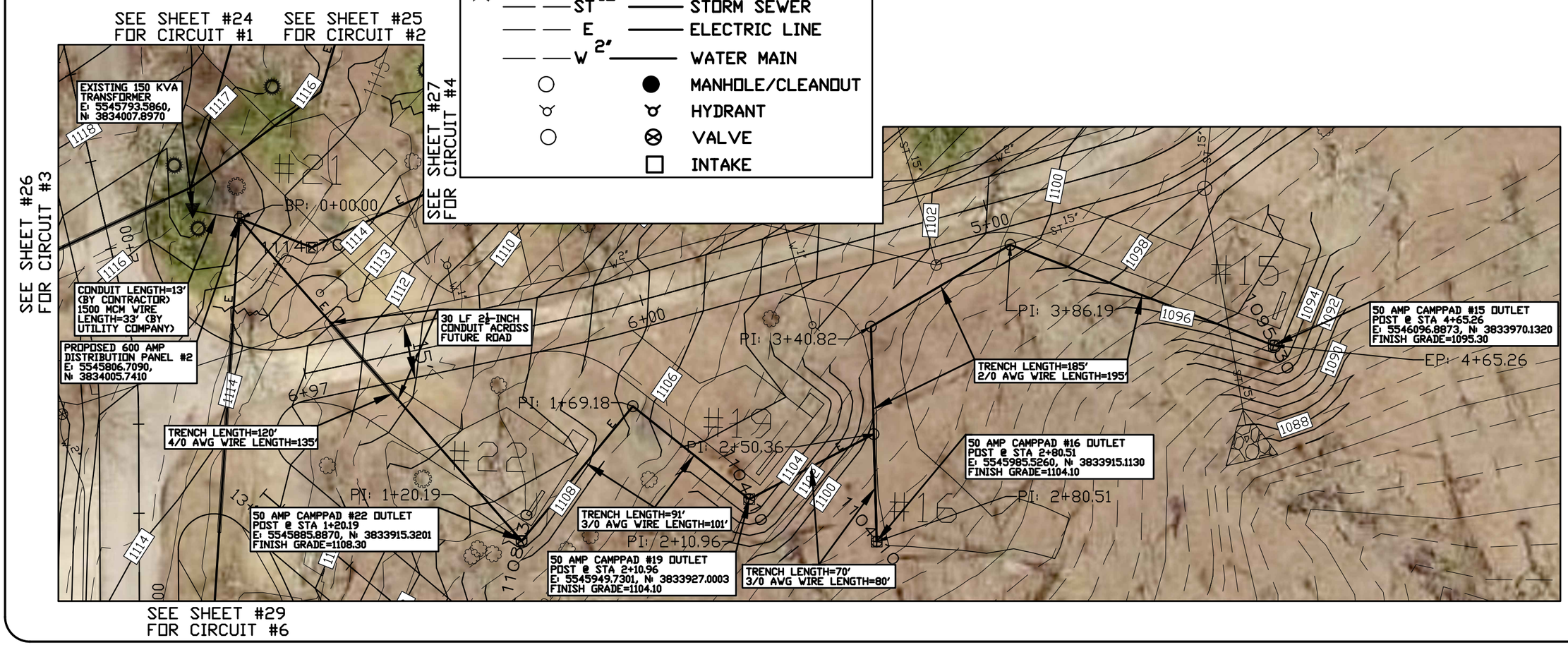
DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 27

ELECTRICAL CIRCUIT #5 ALIGNMENT

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point	Camppad #
1	Line	120.19'	S41° 12' 26"E	0+00.00'	1+20.19'	(5545806.7090',3834005.7410')	(5545885.8870',3833915.3201')	22
2	Line	48.99'	N39° 34' 11"E	1+20.19'	1+69.18'	(5545885.8870',3833915.3201')	(5545917.0963',3833953.0863')	
3	Line	41.78'	S51° 21' 46"E	1+69.18'	2+10.96'	(5545917.0963',3833953.0863')	(5545949.7301',3833927.0003')	19
4	Line	39.40'	N62° 23' 34"E	2+10.96'	2+50.36'	(5545949.7301',3833927.0003')	(5545984.6414',3833945.2572')	
5	Line	30.16'	S1° 40' 51"E	2+50.36'	2+80.51'	(5545984.6414',3833945.2572')	(5545985.5260',3833915.1130')	16
6	Line	60.31'	N1° 33' 05"W	2+80.51'	3+40.82'	(5545985.5260',3833915.1130')	(5545983.8933',3833975.3994')	
7	Line	45.37'	N59° 36' 25"E	3+40.82'	3+86.19'	(5545983.8933',3833975.3994')	(5546023.0273',3833998.3529')	
8	Line	79.07'	S69° 05' 20"E	3+86.19'	4+65.26'	(5546023.0273',3833998.3529')	(5546096.8873',3833970.1320')	15



PLAN DETAIL
MAIN DISTRIBUTION PANEL NO. 2
NOT TO SCALE



CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

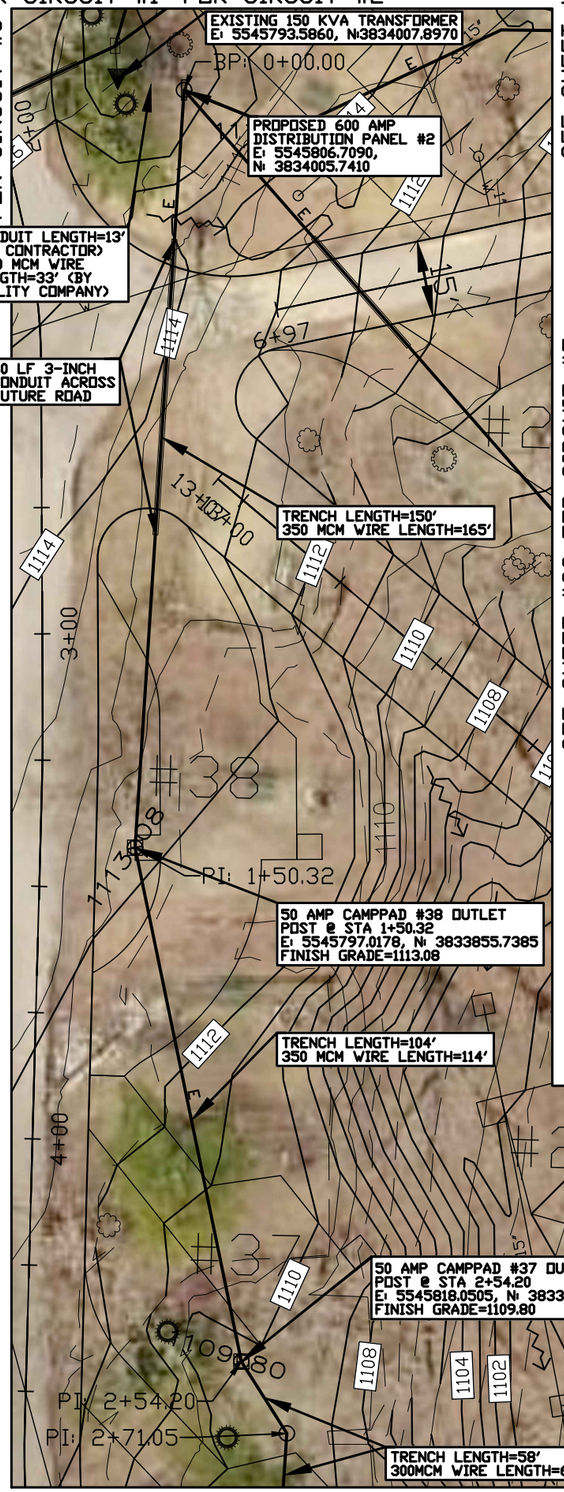
ELECTRICAL PLAN CIRCUIT #5

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 28

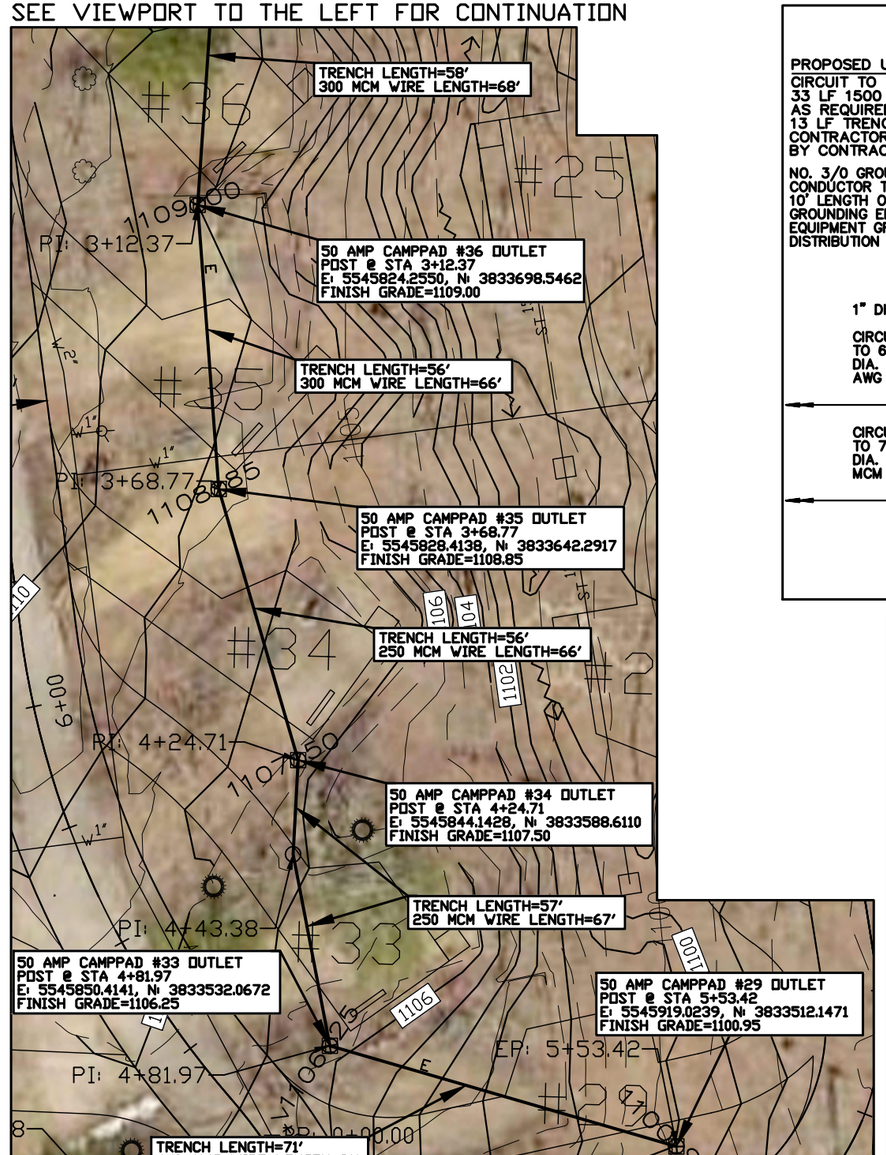
SEE SHEET #24 FOR CIRCUIT #1 | SEE SHEET #25 FOR CIRCUIT #2 | SEE SHEET #26 FOR CIRCUIT #3 | SEE SHEET #27 FOR CIRCUIT #4 | SEE SHEET #28 FOR CIRCUIT #5

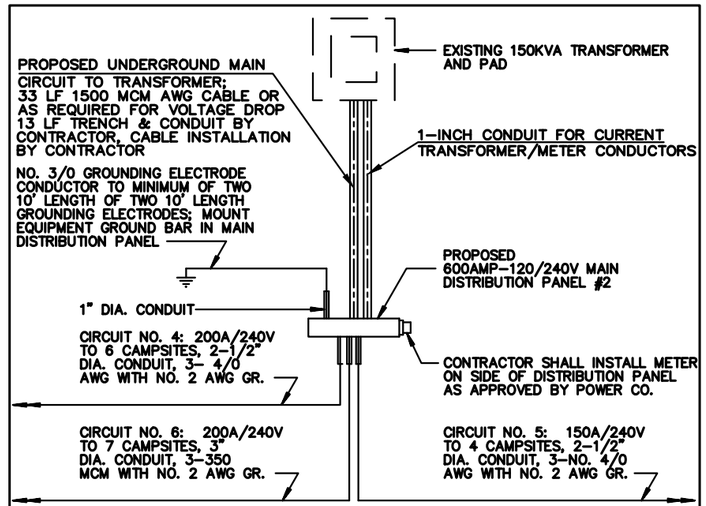


SEE VIEWPORT TO THE RIGHT FOR CONTINUATION

ELECTRICAL CIRCUIT #6 ALIGNMENT							
No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point	Camppad #
1	Line	150.32'	S3° 41' 48"W	0+00.00'	1+50.32'	(5545806.7090',3834005.7410')	(5545797.0178',3833855.7385')	38
2	Line	103.89'	S11° 40' 50"E	1+50.32'	2+54.20'	(5545797.0178',3833855.7385')	(5545818.0505',3833754.0018')	37
3	Line	16.85'	S32° 19' 31"E	2+54.20'	2+71.05'	(5545818.0505',3833754.0018')	(5545827.0614',3833739.7619')	
4	Line	41.31'	S3° 53' 43"W	2+71.05'	3+12.37'	(5545827.0614',3833739.7619')	(5545824.2550',3833698.5462')	36
5	Line	56.41'	S4° 13' 41"E	3+12.37'	3+68.77'	(5545824.2550',3833698.5462')	(5545828.4138',3833642.2917')	35
6	Line	55.94'	S16° 19' 52"E	3+68.77'	4+24.71'	(5545828.4138',3833642.2917')	(5545844.1428',3833588.6110')	34
7	Line	18.67'	S3° 05' 21"W	4+24.71'	4+43.38'	(5545844.1428',3833588.6110')	(5545843.1368',3833569.9707')	
8	Line	38.60'	S10° 52' 06"E	4+43.38'	4+81.97'	(5545843.1368',3833569.9707')	(5545850.4141',3833532.0672')	33
9	Line	71.44'	S73° 48' 36"E	4+81.97'	5+53.42'	(5545850.4141',3833532.0672')	(5545919.0239',3833512.1471')	29

SEE VIEWPORT TO THE LEFT FOR CONTINUATION





PLAN DETAIL
MAIN DISTRIBUTION PANEL NO. 2
NOT TO SCALE

0 30
FEET

LEGEND

EXISTING/PROPOSED

- SAN 6" — SANITARY SEWER
- ST 12" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- MANHOLE/CLEANOUT
- HYDRANT
- VALVE
- INTAKE

CONSULTANT:

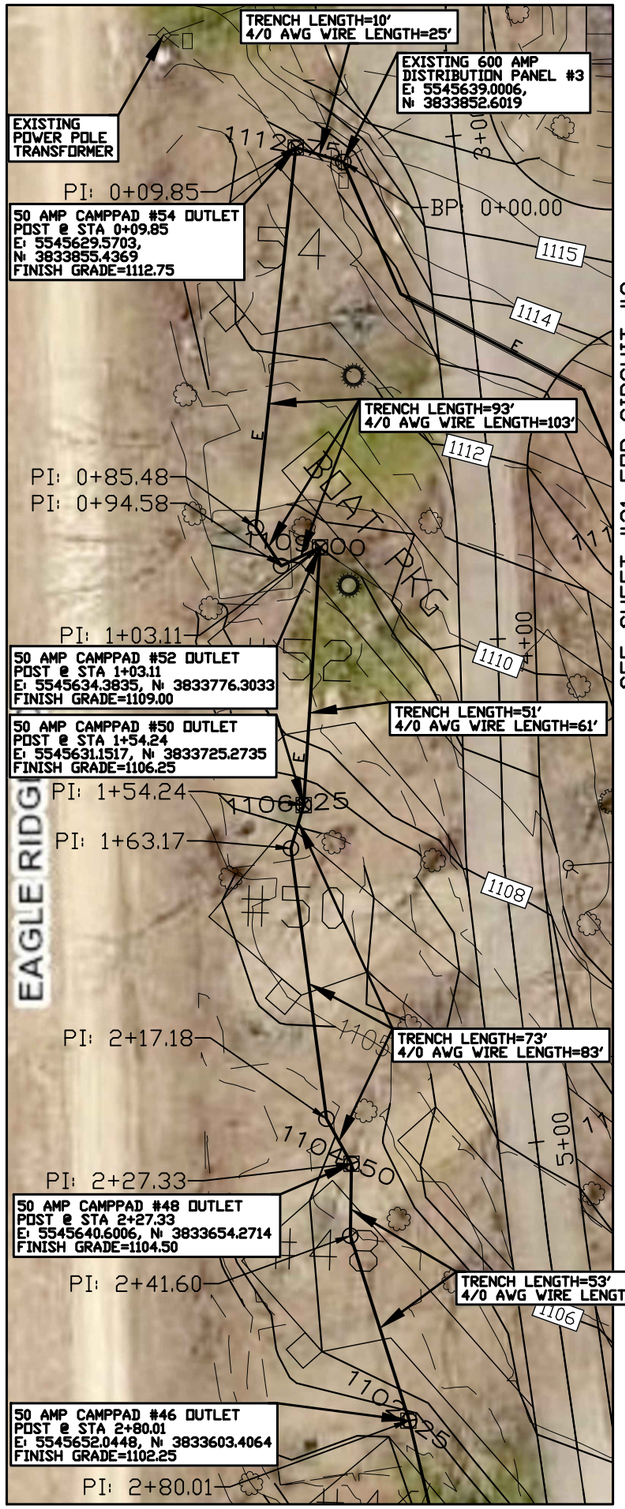
IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

ELECTRICAL PLAN CIRCUIT #6

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY	DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 29



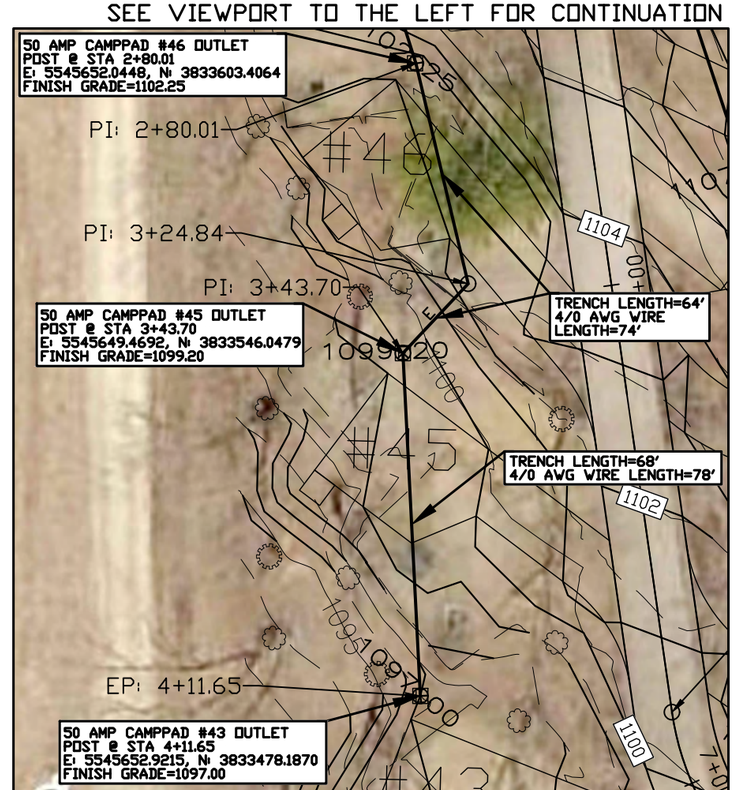
ELECTRICAL CIRCUIT #7 ALIGNMENT

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point	Camppad #
1	Line	9.85'	N73° 16' 05"W	0+00.00'	0+09.85'	(5545639.0006',3833852.6019')	(5545629.5703',3833855.4369')	54
2	Line	75.63'	S5° 59' 02"W	0+09.85'	0+85.48'	(5545629.5703',3833855.4369')	(5545621.6859',3833780.2192')	
3	Line	9.10'	S33° 21' 59"E	0+85.48'	0+94.58'	(5545621.6859',3833780.2192')	(5545626.6898',3833772.6206')	
4	Line	8.53'	N64° 25' 14"E	0+94.58'	1+03.11'	(5545626.6898',3833772.6206')	(5545634.3835',3833776.3033')	52
5	Line	51.13'	S3° 37' 25"W	1+03.11'	1+54.24'	(5545634.3835',3833776.3033')	(5545631.1517',3833725.2735')	50
6	Line	8.94'	S16° 21' 54"W	1+54.24'	1+63.17'	(5545631.1517',3833725.2735')	(5545628.6340',3833716.6999')	
7	Line	54.00'	S7° 29' 57"E	1+63.17'	2+17.18'	(5545628.6340',3833716.6999')	(5545635.6824',3833663.1571')	
8	Line	10.16'	S28° 57' 52"E	2+17.18'	2+27.33'	(5545635.6824',3833663.1571')	(5545640.6006',3833654.2714')	48
9	Line	14.26'	S0° 47' 43"W	2+27.33'	2+41.60'	(5545640.6006',3833654.2714')	(5545640.4026',3833640.0105')	
10	Line	38.41'	S17° 38' 37"E	2+41.60'	2+80.01'	(5545640.4026',3833640.0105')	(5545652.0448',3833603.4064')	46
11	Line	44.83'	S13° 21' 09"E	2+80.01'	3+24.84'	(5545652.0448',3833603.4064')	(5545662.3986',3833559.7850')	
12	Line	18.86'	S43° 15' 54"W	3+24.84'	3+43.70'	(5545662.3986',3833559.7850')	(5545649.4692',3833546.0479')	45
13	Line	67.95'	S2° 54' 44"E	3+43.70'	4+11.65'	(5545649.4692',3833546.0479')	(5545652.9215',3833478.1870')	43

N

0 30
FEET

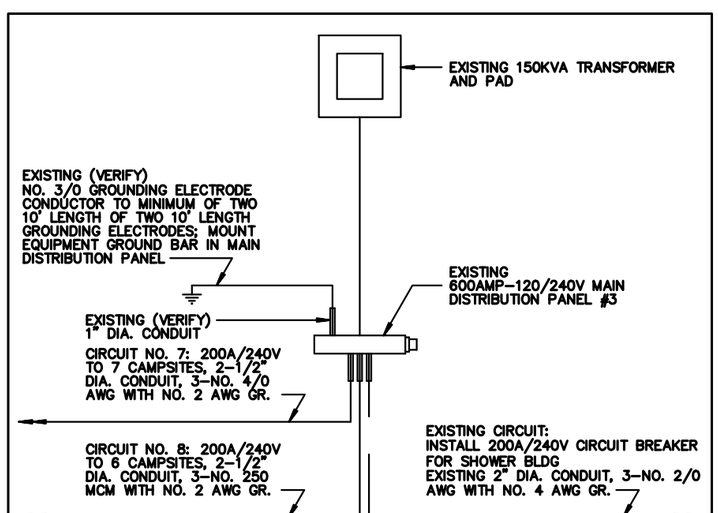
SEE VIEWPORT TO THE LEFT FOR CONTINUATION



LEGEND

EXISTING/PROPOSED

- SAN 6" — SANITARY SEWER
- ST 12" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- MANHOLE/CLEANOUT
- HYDRANT
- VALVE
- INTAKE



PLAN DETAIL
MAIN DISTRIBUTION PANEL NO. 3
NOT TO SCALE

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

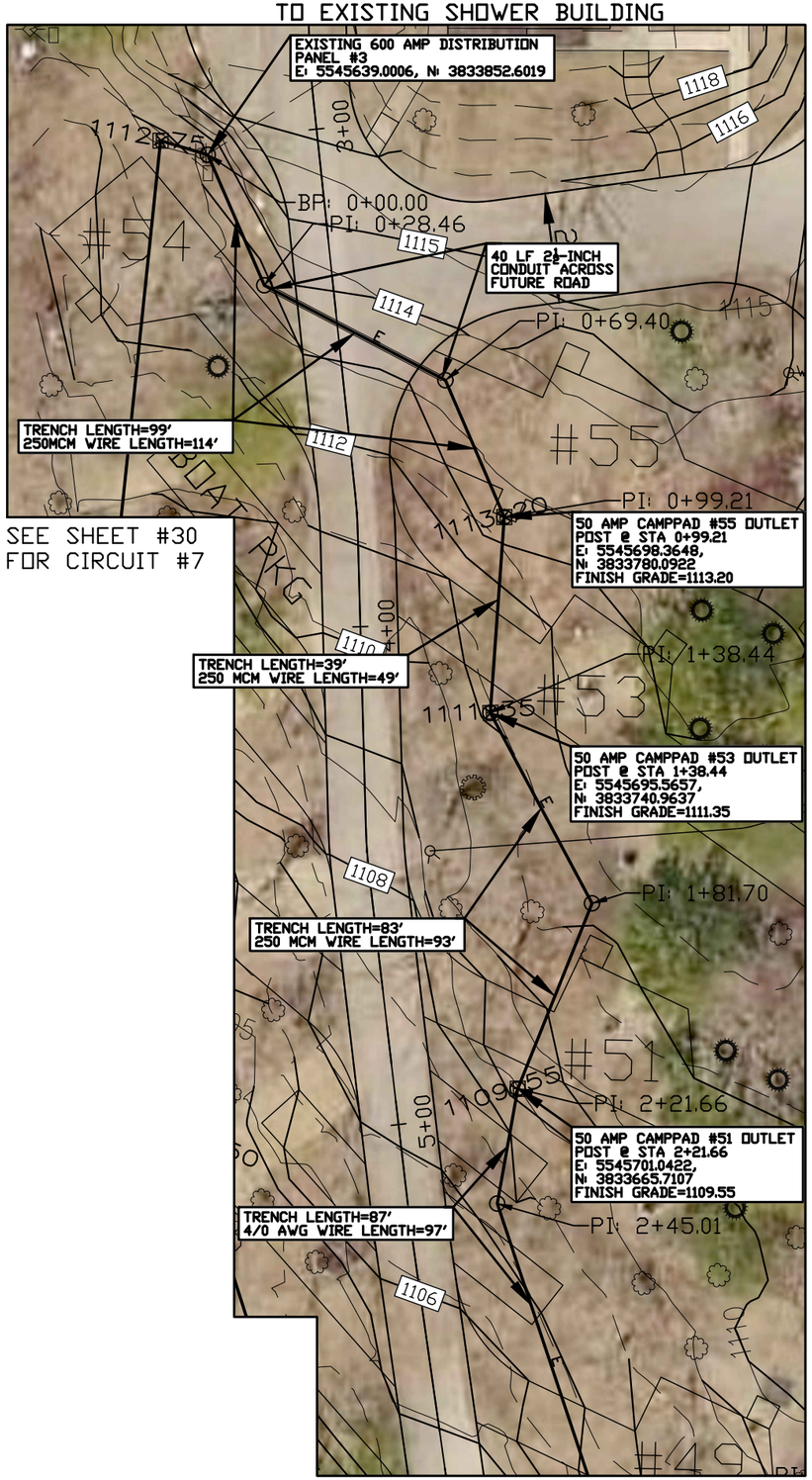
ELECTRICAL PLAN CIRCUIT #7

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

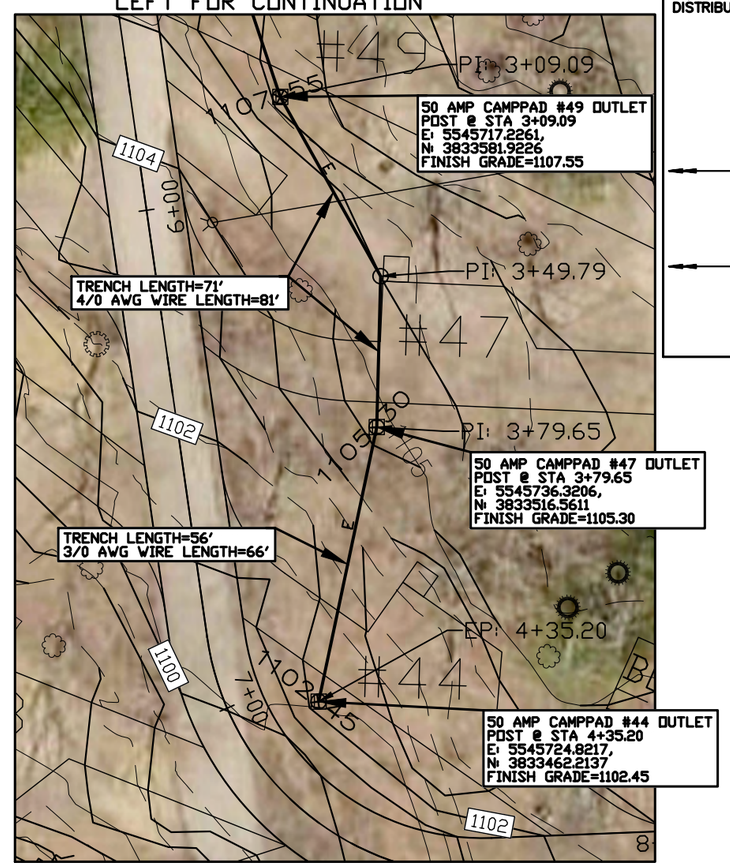
DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 30

200 AMP CIRCUIT TO EXISTING SHOWER BUILDING

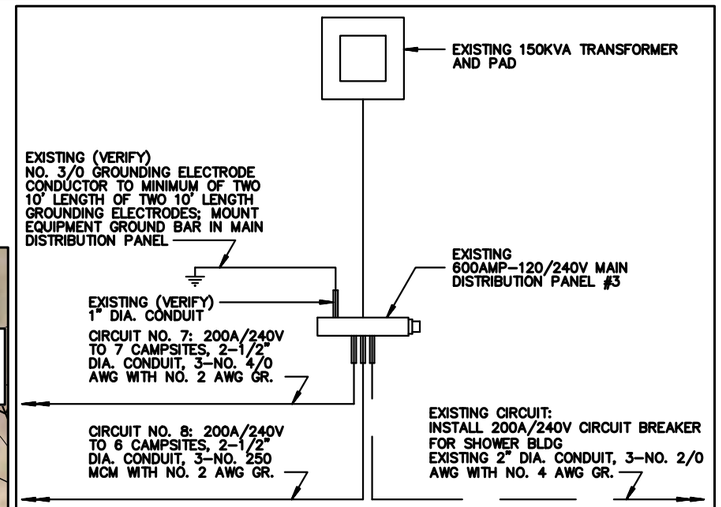


SEE VIEWPORT TO THE RIGHT FOR CONTINUATION

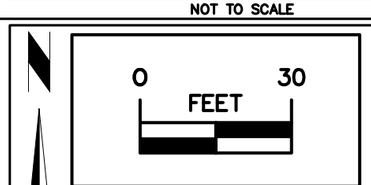
SEE VIEWPORT TO THE LEFT FOR CONTINUATION



ELECTRICAL CIRCUIT #8 ALIGNMENT								
No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point	Camppad #
1	Line	28.46'	S23° 26' 42"E	0+00.00'	0+28.46'	(5545639.0006',3833852.6019')	(5545650.3258',3833826.4872')	
2	Line	40.93'	S62° 19' 22"E	0+28.46'	0+69.40'	(5545650.3258',3833826.4872')	(5545686.5769',3833807.4733')	
3	Line	29.81'	S23° 17' 33"E	0+69.40'	0+99.21'	(5545686.5769',3833807.4733')	(5545698.3648',3833780.0922')	55
4	Line	39.23'	S4° 05' 30"W	0+99.21'	1+38.44'	(5545698.3648',3833780.0922')	(5545695.5657',3833740.9637')	53
5	Line	43.26'	S28° 04' 25"E	1+38.44'	1+81.70'	(5545695.5657',3833740.9637')	(5545715.9249',3833702.7920')	
6	Line	39.96'	S21° 52' 06"W	1+81.70'	2+21.66'	(5545715.9249',3833702.7920')	(5545701.0422',3833665.7107')	51
7	Line	23.35'	S10° 03' 30"W	2+21.66'	2+45.01'	(5545701.0422',3833665.7107')	(5545696.9634',3833642.7162')	
8	Line	64.08'	S18° 26' 00"E	2+45.01'	3+09.09'	(5545696.9634',3833642.7162')	(5545717.2261',3833581.9226')	49
9	Line	40.69'	S29° 13' 55"E	3+09.09'	3+49.79'	(5545717.2261',3833581.9226')	(5545737.0986',3833546.4114')	
10	Line	29.86'	S1° 29' 35"W	3+49.79'	3+79.65'	(5545737.0986',3833546.4114')	(5545736.3206',3833516.5611')	47
11	Line	55.55'	S11° 56' 47"W	3+79.65'	4+35.20'	(5545736.3206',3833516.5611')	(5545724.8217',3833462.2137')	44



PLAN DETAIL
MAIN DISTRIBUTION PANEL NO. 3
NOT TO SCALE



LEGEND

EXISTING/PROPOSED

- SAN 6" — SANITARY SEWER
- ST 12" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- MANHOLE/CLEANOUT
- HYDRANT
- VALVE
- INTAKE

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

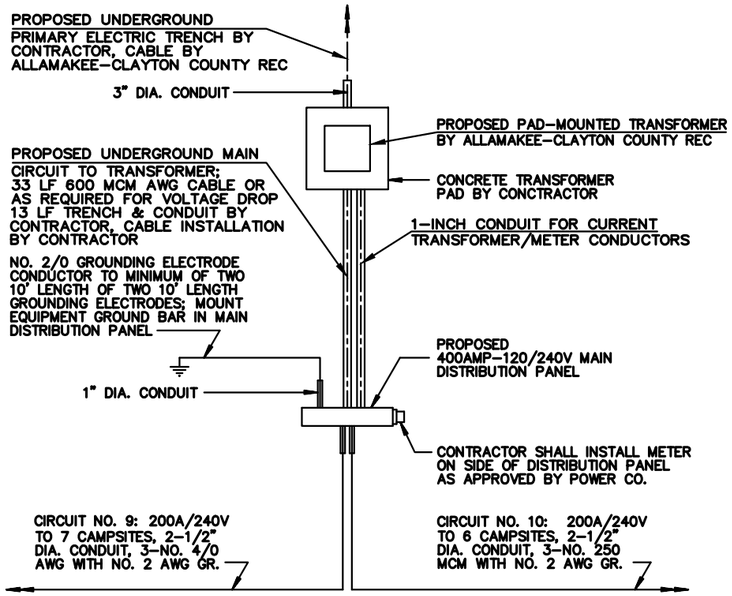
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

ELECTRICAL PLAN CIRCUIT #8

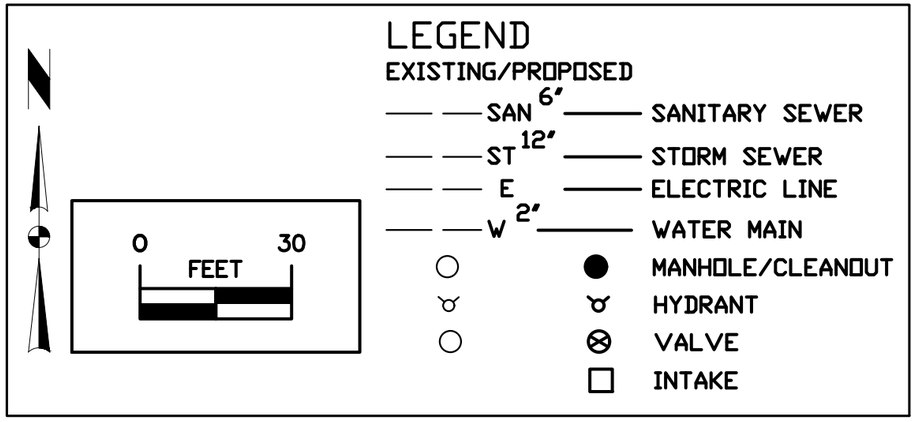
CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

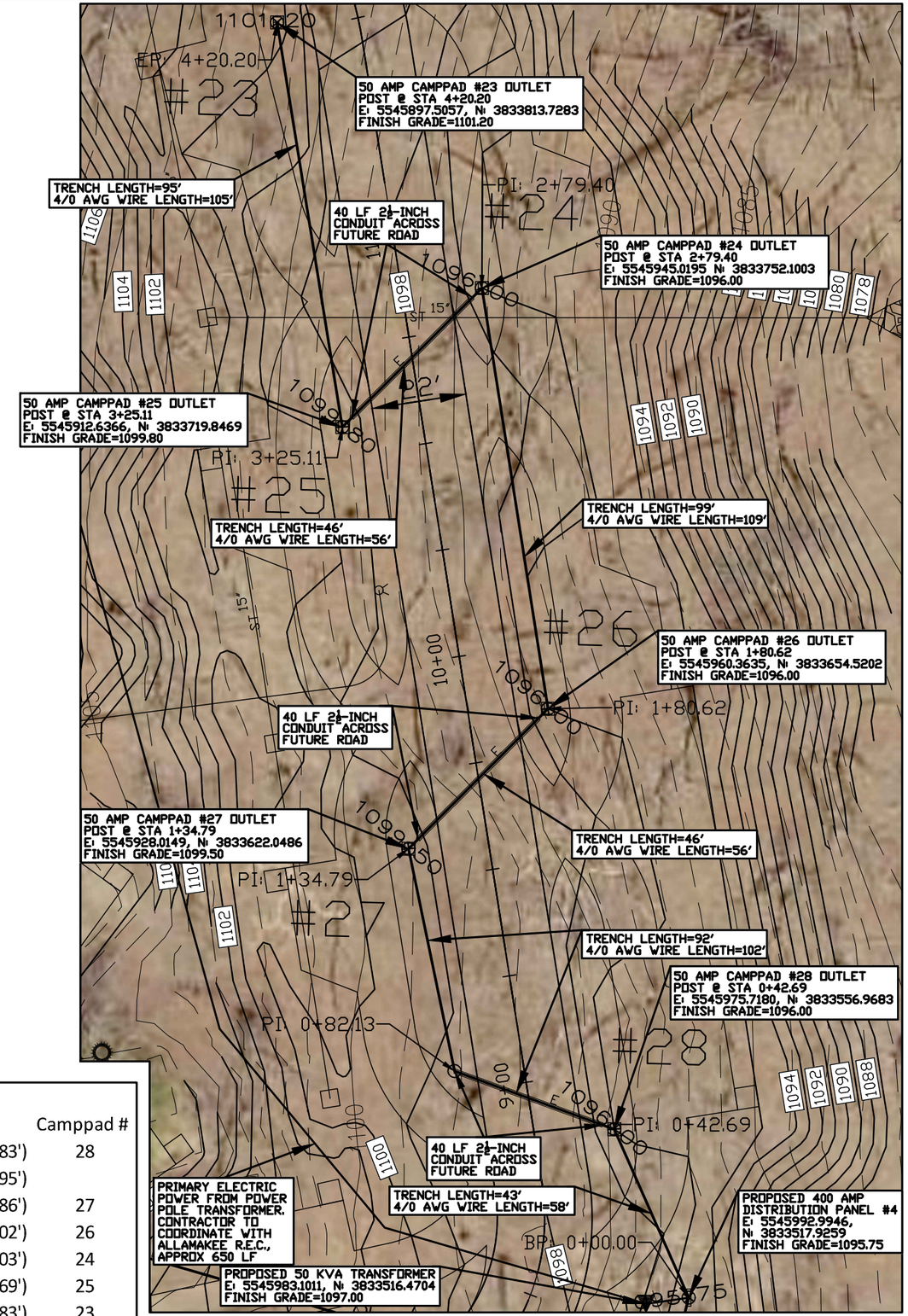
NO.	BY: DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 31



PLAN DETAIL
MAIN DISTRIBUTION PANEL NO. 4
NOT TO SCALE





SEE SHEET #33 FOR CIRCUIT #10

ELECTRICAL CIRCUIT #9 ALIGNMENT

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point	Camppad #
1	Line	42.69'	N23° 52' 11"W	0+00.00'	0+42.69'	(5545992.9946',3833517.9259')	(5545975.7180',3833556.9683')	28
2	Line	39.44'	N69° 57' 49"W	0+42.69'	0+82.13'	(5545975.7180',3833556.9683')	(5545938.6695',3833570.4795')	
3	Line	52.66'	N11° 40' 25"W	0+82.13'	1+34.79'	(5545938.6695',3833570.4795')	(5545928.0149',3833622.0486')	27
4	Line	45.83'	N44° 53' 28"E	1+34.79'	1+80.62'	(5545928.0149',3833622.0486')	(5545960.3635',3833654.5202')	26
5	Line	98.78'	N8° 56' 11"W	1+80.62'	2+79.40'	(5545960.3635',3833654.5202')	(5545945.0195',3833752.1003')	24
6	Line	45.70'	S45° 06' 53"W	2+79.40'	3+25.11'	(5545945.0195',3833752.1003')	(5545912.6366',3833719.8469')	25
7	Line	95.09'	N9° 09' 20"W	3+25.11'	4+20.20'	(5545912.6366',3833719.8469')	(5545897.5057',3833813.7283')	23

CONSULTANT:

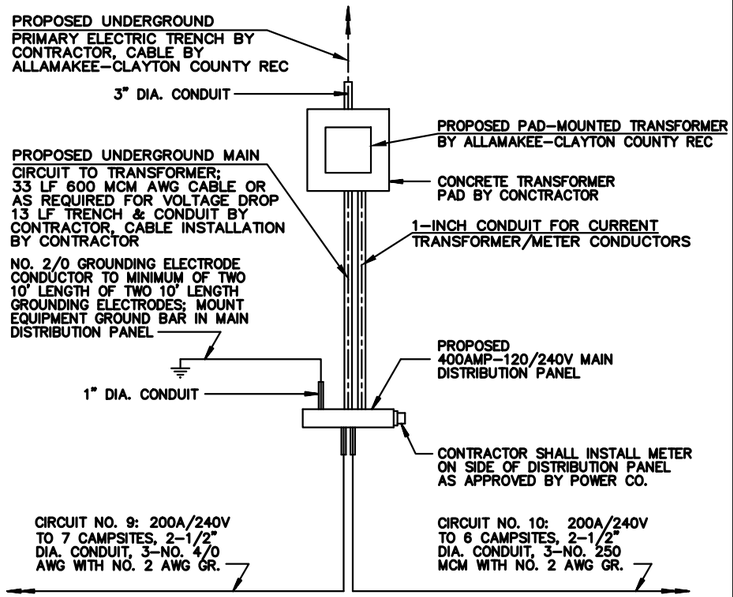
IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

ELECTRICAL PLAN CIRCUIT #9

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 32



PLAN DETAIL
MAIN DISTRIBUTION PANEL NO. 4
NOT TO SCALE

ELECTRICAL CIRCUIT #10 ALIGNMENT

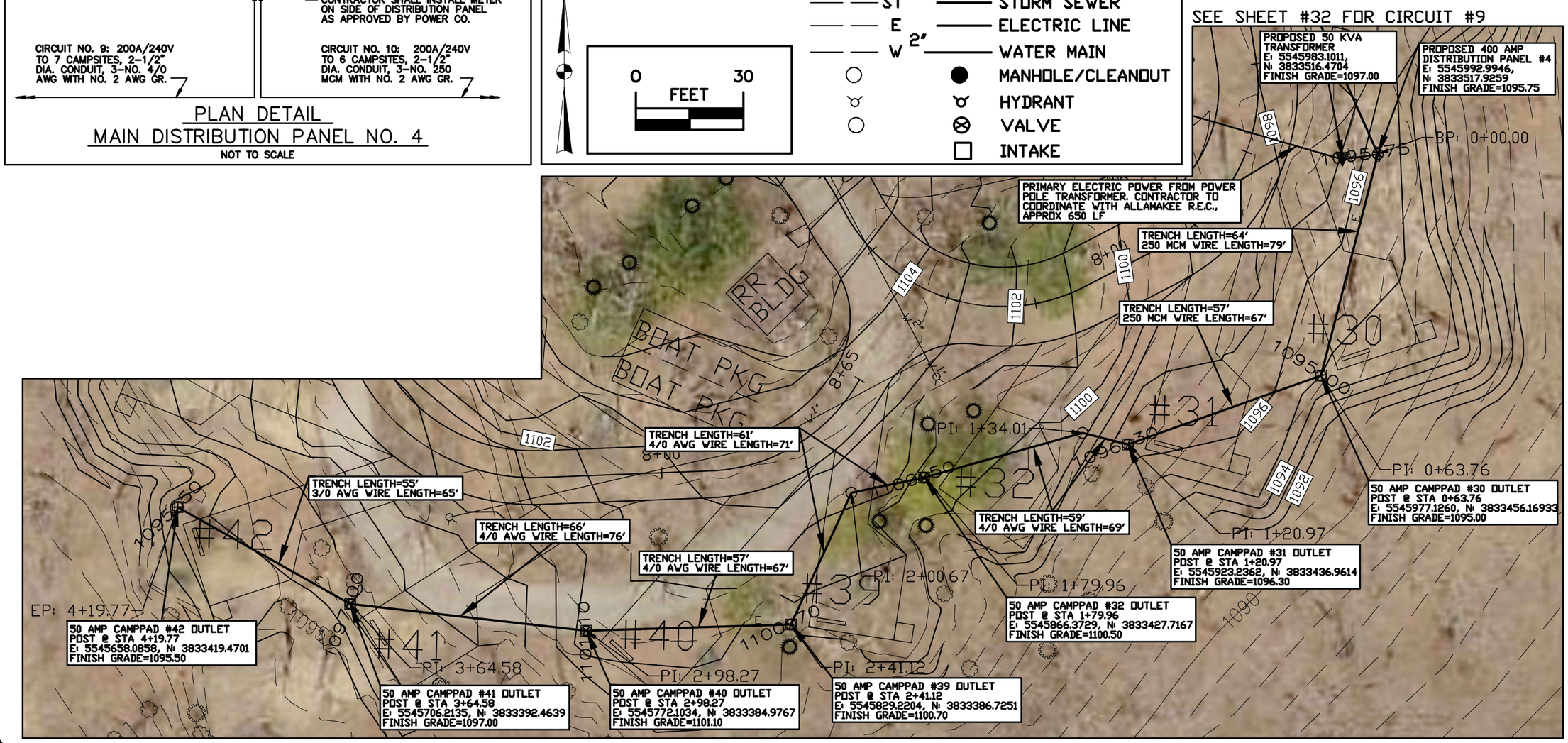
No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point	Camppad #
1	Line	63.76'	S14° 24' 38"W	0+00.00'	0+63.76'	(5545992.9946',3833517.9259')	(5545977.1260',3833456.1693')	30
2	Line	57.21'	S70° 22' 57"W	0+63.76'	1+20.97'	(5545977.1260',3833456.1693')	(5545923.2362',3833436.9614')	31
3	Line	13.04'	N75° 42' 17"W	1+20.97'	1+34.01'	(5545923.2362',3833436.9614')	(5545910.5995',3833440.1813')	
4	Line	45.95'	S74° 15' 37"W	1+34.01'	1+79.96'	(5545910.5995',3833440.1813')	(5545866.3729',3833427.7167')	32
5	Line	20.70'	S78° 12' 53"W	1+79.96'	2+00.67'	(5545866.3729',3833427.7167')	(5545846.1050',3833423.4880')	
6	Line	40.45'	S24° 40' 07"W	2+00.67'	2+41.12'	(5545846.1050',3833423.4880')	(5545829.2204',3833386.7251')	39
7	Line	57.14'	S88° 14' 48"W	2+41.12'	2+98.27'	(5545829.2204',3833386.7251')	(5545772.1034',3833384.9767')	40
8	Line	66.31'	N83° 31' 02"W	2+98.27'	3+64.58'	(5545772.1034',3833384.9767')	(5545706.2135',3833392.4639')	41
9	Line	55.19'	N60° 42' 06"W	3+64.58'	4+19.77'	(5545706.2135',3833392.4639')	(5545658.0858',3833419.4701')	42

LEGEND
EXISTING/PROPOSED

- SAN 6" — SANITARY SEWER
- ST 12" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- MANHOLE/CLEANOUT
- HYDRANT
- VALVE
- INTAKE

0 30
FEET

SEE SHEET #32 FOR CIRCUIT #9



CONSULTANT:

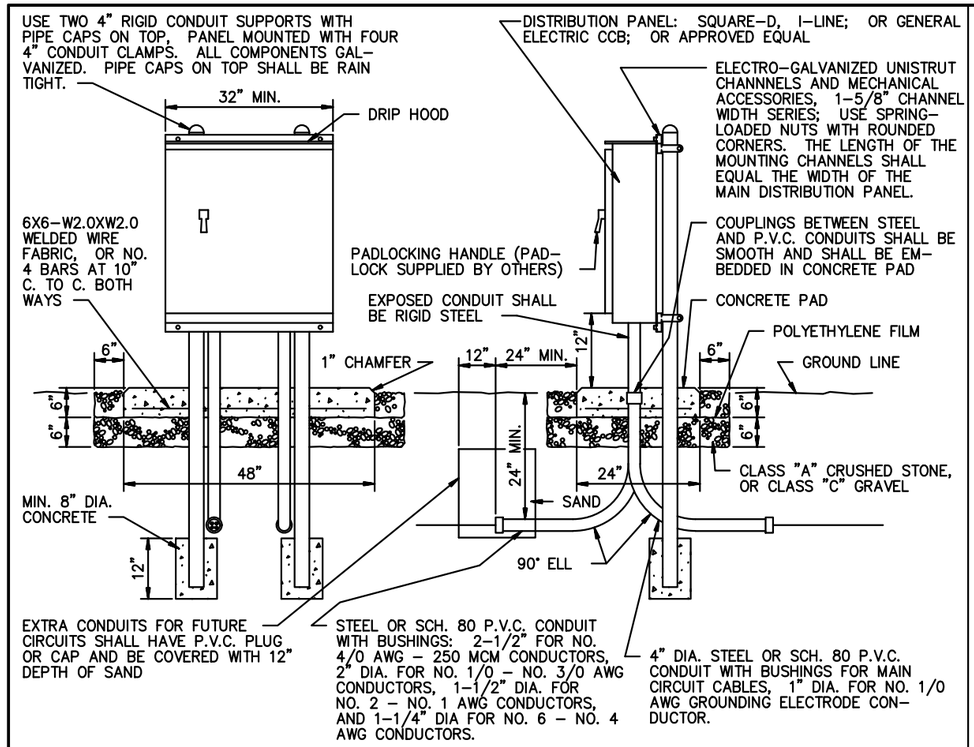
IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

ELECTRICAL PLAN CIRCUIT #10

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY: DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 33



PAD-MOUNTED DISTRIBUTION PANEL DETAIL

NOTES:

1. THE COST FOR INSTALLING "MAIN CIRCUIT CABLES" SHALL INCLUDED IN THE LUMP SUM BID ITEM 'PRIMARYELECTRIC SERVICE TO DISTRIBUTION PANELS'. THESE COSTS TO INCLUDE BUT NOT LIMITED TO TRENCHING, CONDUITS, CABLES, CONCRETE TRANSFORMER PADS, ELECTRIC METER, ETC. THE CONTRACTOR SHALL ARRANGE WITH THE ELECTRIC UTILITY COMPANY FOR CONNECTION OF THE MAIN CIRCUIT CABLES TO THE TRANSFORMER.
2. MAIN DISTRIBUTION PANELS SHALL BE MOUNTED TO RIGID STEEL CONDUIT POSTS USING CONDUIT CLAMPS AND A 1-5/8" X 3-1/4" X 12 GAUGE CHANNEL COMBINATION. MOUNTING CHANNELS AND ACCESSORIES SHALL BE CONSTRUCTED USING THE "UNISTRUT" SYSTEM MANUFACTURED BY GTE PRODUCTS CORP., THE "POWER-STRUT" SYSTEM MANUFACTURED BY ELCEN METAL PRODUCTS CO., OR AN APPROVED EQUAL. WITH THE "UNISTRUT" SYSTEM, CONDUIT CLAMPS SHALL BE NO. P1118, AND MOUNTING CHANNELS SHALL BE P1001B. WITH THE "POWER-STRUT" SYSTEM, CONDUIT CLAMPS SHALL BE CAT. NO. PS-1100-2-1/2", AND MOUNTING CHANNELS SHALL BE CAT. NO. PS-200-2T2. END CAPS SHALL BE INSTALLED ON ENDS OF CHANNELS. SPRING LOADED NUTS AND BOLTS SHALL BE SIZED TO MATCH MOUNTING HOLES IN PANEL (MINIMUM DIA. OF BOLTS SHALL BE 1/2" AND 5/8" MOUNTING HOLES). ALL CHANNELS AND ACCESSORIES SHALL BE ELECTRO-GALVANIZED OR HOT-DIPPED GALVANIZED.

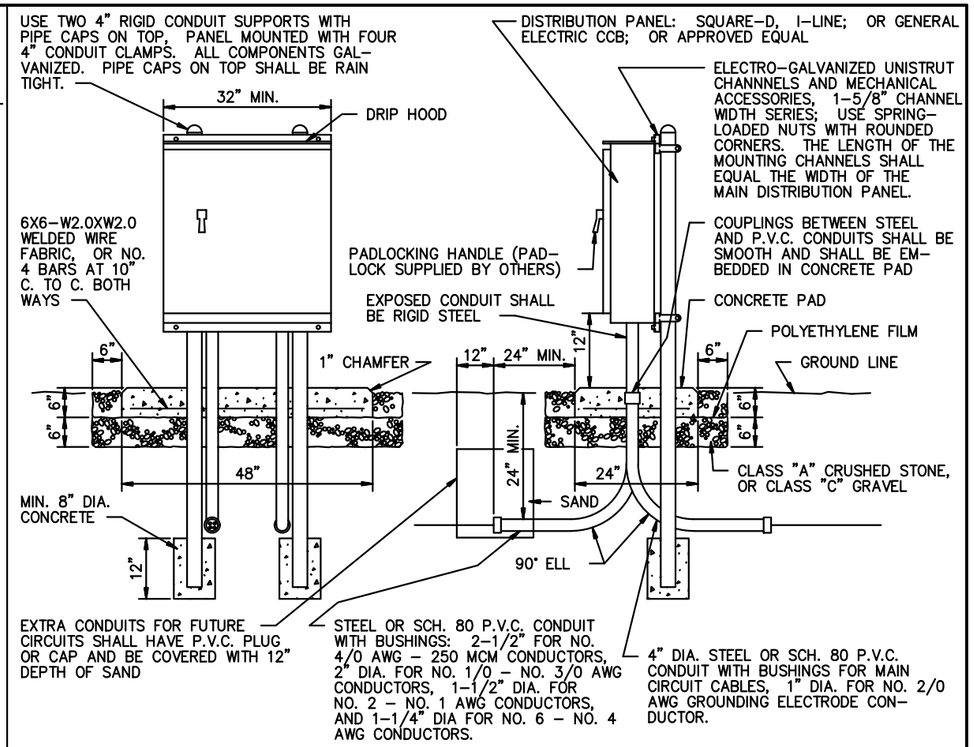
400 AMP/240 VOLT MAIN DISTRIBUTION PANEL FEATURES:

1. SYSTEM: 120/240 V., 3-WIRE CONTINUOUS GROUND, SINGLE PHASE.
2. SQUARE-D TYPE HCM I-LINE, OR GENERAL ELECTRIC TYPE CCB, PANELBOARD.
3. 400 AMP LA (SQUARE-D) OR TJD (G.E.) 2-POLE MAIN CIRCUIT BREAKER (22,000A MIN A/C).
4. SOLID NEUTRAL.
5. EQUIPMENT GROUND BAR MOUNTED IN PANEL.
6. DEADFRONT, NEMA TYPE 3R ENCLOSURE.
7. GASKET SEALING AROUND DOOR OPENING.
8. CONCEALED DOOR HINGE.
9. THREE-POINT VAULT TYPE LOCKING MECHANISM WITH CHROME FINISH PAD-LOCKING HANDLE.
10. CABINET FINISH: RUST INHIBITING PRIMER AND FINISH COAT OF STANDARD GRAY BAKED ENAMEL.
11. BRANCH BREAKERS: TYPES FA & Q2 (SQUARE-D) OR TYPES TEB & TQD (G.E.) THERMAL MAGNETIC CIRCUIT BREAKERS.

CAMPGROUND ELECTRICAL SYSTEM
STANDARD DRAWING NO. MP-2

DETAILS OF PAD-MOUNTED
400 AMP / 240 VOLT
MAIN DISTRIBUTION PANEL

REVISION DATE 1/25/95



PAD-MOUNTED DISTRIBUTION PANEL DETAIL

NOTES:

1. THE COST FOR INSTALLING "MAIN CIRCUIT CABLES" SHALL INCLUDED IN THE LUMP SUM BID ITEM 'PRIMARYELECTRIC SERVICE TO DISTRIBUTION PANELS'. THESE COSTS TO INCLUDE BUT NOT LIMITED TO TRENCHING, CONDUITS, CABLES, CONCRETE TRANSFORMER PADS, ELECTRIC METER, ETC. THE CONTRACTOR SHALL ARRANGE WITH THE ELECTRIC UTILITY COMPANY FOR CONNECTION OF THE MAIN CIRCUIT CABLES TO THE TRANSFORMER.
2. MAIN DISTRIBUTION PANELS SHALL BE MOUNTED TO RIGID STEEL CONDUIT POSTS USING CONDUIT CLAMPS AND A 1-5/8" X 3-1/4" X 12 GAUGE CHANNEL COMBINATION. MOUNTING CHANNELS AND ACCESSORIES SHALL BE CONSTRUCTED USING THE "UNISTRUT" SYSTEM MANUFACTURED BY GTE PRODUCTS CORP., THE "POWER-STRUT" SYSTEM MANUFACTURED BY ELCEN METAL PRODUCTS CO., OR AN APPROVED EQUAL. WITH THE "UNISTRUT" SYSTEM, CONDUIT CLAMPS SHALL BE NO. P1118, AND MOUNTING CHANNELS SHALL BE P1001B. WITH THE "POWER-STRUT" SYSTEM, CONDUIT CLAMPS SHALL BE CAT. NO. PS-1100-2-1/2", AND MOUNTING CHANNELS SHALL BE CAT. NO. PS-200-2T2. END CAPS SHALL BE INSTALLED ON ENDS OF CHANNELS. SPRING LOADED NUTS AND BOLTS SHALL BE SIZED TO MATCH MOUNTING HOLES IN PANEL (MINIMUM DIA. OF BOLTS SHALL BE 1/2" AND 5/8" MOUNTING HOLES). ALL CHANNELS AND ACCESSORIES SHALL BE ELECTRO-GALVANIZED OR HOT-DIPPED GALVANIZED.

600 AMP/240 VOLT MAIN DISTRIBUTION PANEL FEATURES:

1. SYSTEM: 120/240 V., 3-WIRE CONTINUOUS GROUND, SINGLE PHASE.
2. SQUARE-D TYPE HCM I-LINE, OR GENERAL ELECTRIC TYPE CCB, PANELBOARD.
3. 600 AMP MA (SQUARE-D) OR TJK6 (G.E.) 2-POLE MAIN CIRCUIT BREAKER, EXCEPT WHEN PLAN DRAWINGS REQUIRE MAIN LUGS ONLY (42,000A MIN A/C).
4. SOLID NEUTRAL.
5. EQUIPMENT GROUND BAR MOUNTED IN PANEL.
6. DEADFRONT, NEMA TYPE 3R ENCLOSURE.
7. GASKET SEALING AROUND DOOR OPENING.
8. CONCEALED DOOR HINGE.
9. THREE-POINT VAULT TYPE LOCKING MECHANISM WITH CHROME FINISH PAD-LOCKING HANDLE.
10. CABINET FINISH: RUST INHIBITING PRIMER AND FINISH COAT OF STANDARD GRAY BAKED ENAMEL.
11. BRANCH BREAKERS: TYPES FA & Q2 (SQUARE-D) OR TYPES TEB & TQD (G.E.) THERMAL MAGNETIC CIRCUIT BREAKERS.

CAMPGROUND ELECTRICAL SYSTEM
STANDARD DRAWING NO. MP-3

DETAILS OF PAD-MOUNTED
600 AMP / 240 VOLT
MAIN DISTRIBUTION PANEL

REVISION DATE 1/25/95

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

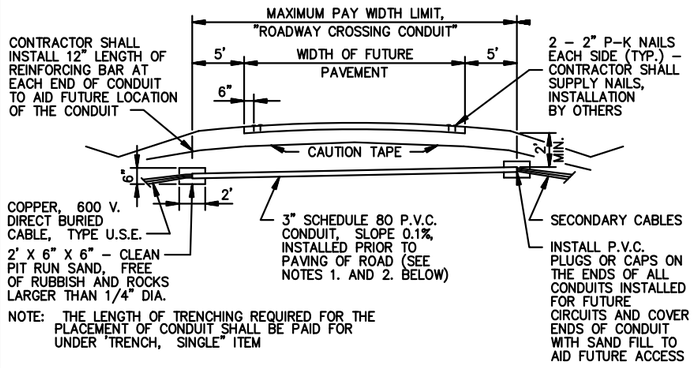
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

ELECTRICAL DETAILS

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
CHK'D BY:
PROJECT NUMBER: 21-03-22-01
DATE: 5/01/2021
SHEET No: 34



NOTE: THE LENGTH OF TRENCHING REQUIRED FOR THE PLACEMENT OF CONDUIT SHALL BE PAID FOR UNDER "TRENCH, SINGLE" ITEM

ROADWAY CROSSING CONDUIT BENEATH FUTURE PAVEMENT

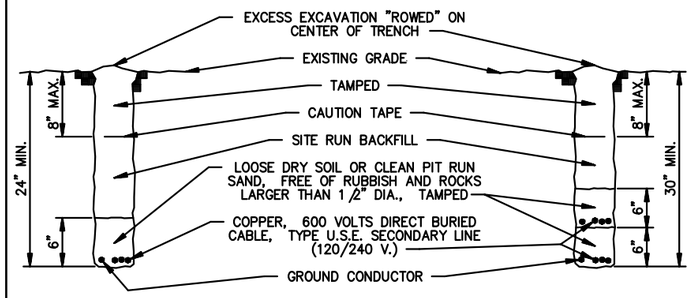
NOTES:

1. FOR ROADWAY CROSSING CONDUIT BENEATH FUTURE PAVEMENT, PLACE CONDUIT IN TRENCH THAT IS GRADED TRUE AND IS FREE FROM STONES OR SOFT SPOTS. IN ROCKY SOIL, PLACE SELECTED BACKFILL IN BOTTOM OF TRENCH AND AROUND CONDUIT.
2. TRENCH BACKFILL, PLACED AROUND ROADWAY CROSSING CONDUIT BENEATH FUTURE PAVEMENT, SHALL BE FREE FROM STONES AND BE FIRMLY TAMPED AROUND THE SIDES (NOT THE TOP) OF THE CONDUIT, TO DEVELOP MAXIMUM SUPPORTING STRENGTH. COMPACTION OF TOP 12" OF BACKFILL BENEATH FUTURE PAVEMENT WILL BE CONSIDERED SUITABLE IF THE RESULTING DENSITY WITH ADEQUATE MOISTURE, IS REASONABLY UNIFORM THROUGHOUT EACH COMPACTED LIFT AND IS AT LEAST 95 PERCENT OF MAXIMUM DENSITY, DETERMINED IN ACCORDANCE WITH STANDARD PROCTOR DENSITY TEST.

CAMPGROUND ELECTRICAL SYSTEM
STANDARD DRAWING NO. RC-1

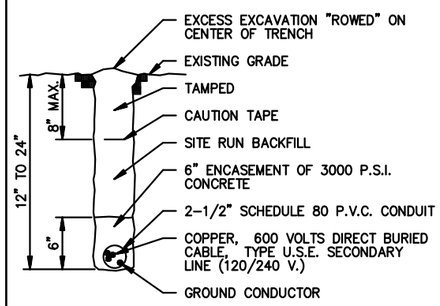
DETAILS OF ROADWAY CROSSING CONDUITS FOR SECONDARY CIRCUITS

REVISION DATE 1/25/95

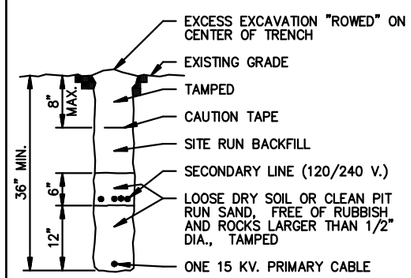


SINGLE TRENCH

DOUBLE TRENCH



SINGLE TRENCH WITH LESS THAN MINIMUM BURIAL DEPTH



COMBINED PRIMARY AND SECONDARY TRENCH

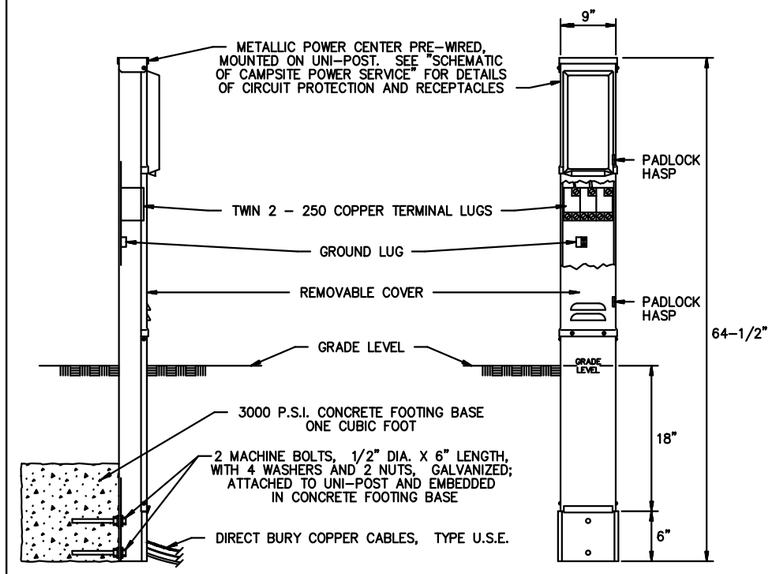
NOTES:

1. AFTER INSTALLATION OF THE ELECTRICAL CONDUCTORS, AND AT LOCATIONS WHERE THE TRENCHING OPERATIONS CROSS THE CAMPSITE VEHICLE PARKING PADS, THE CONTRACTOR SHALL PLACE AND COMPACT A MINIMUM OF 4" OF GRANULAR SURFACING ABOVE THE COMPACTED TRENCH BACKFILL.
2. THE CONTRACTOR SHALL SEED AREAS DISTURBED BY TRENCHING ACTIVITY WITH AN "URBAN" OR "RURAL" SEED MIXTURE, AS SPECIFIED ON THE PLAN DRAWINGS. THE COST OF SEEDING SHALL BE CONSIDERED AS INCIDENTAL TO OTHER ITEMS OF WORK.
3. TRENCHING AND BACKFILL SHALL CONFORM TO SUDAS.

CAMPGROUND ELECTRICAL SYSTEM
STANDARD DRAWING NO TS-1

DETAILS OF TRENCHES FOR SECONDARY CIRCUITS

REVISION DATE 1/21/97

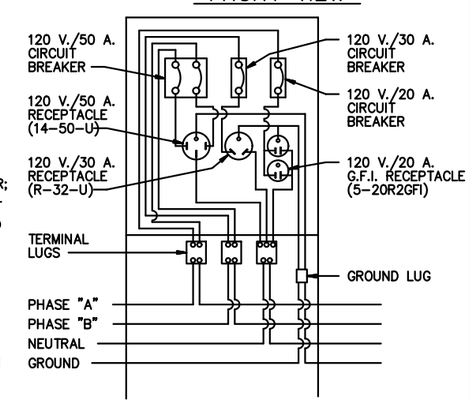


SIDE VIEW

NOTES:

1. A "SINGLE CAMPSITE OUTLET POST-50 AMP" SHALL HAVE THE FOLLOWING CONFIGURATION: AN UNMETERED, POST MOUNTED CABINET WITH A 5-20R2GFI 20 AMP DUPLEX RECEPTACLE, A R32U 30 AMP RECEPTACLE, A 14-50R 50 AMP RECEPTACLE, A SINGLE POLE 20 AMP CIRCUIT BREAKER, A SINGLE POLE 30 AMP CIRCUIT BREAKER, AND A DOUBLE POLE 50 AMP CIRCUIT BREAKER; MIDWEST MODEL U075CP6010 OR MODEL U075CP6039 FOR 350 MCM LUGS, MILLBANK U5200-XL-75, OR APPROVED EQUAL, SHALL BE USED FOR SINGLE CAMPSITE OUTLET POST WITH METALLIC POWER CENTER.
2. SEE TRENCH DETAILS, STANDARD DRAWING NO. TS-1, FOR DETAILS OF INSTALLATION OF DIRECT BURY COPPER CABLES TO CAMPSITE OUTLET POST.
3. THE CONDUCTOR SIZES AND THE PLAN ARRANGEMENT OF THE LOADS ON EACH CIRCUIT SHALL BE SELECTED TO LIMIT THE MAXIMUM CIRCUIT VOLTAGE DROP, FROM THE TRANSFORMER TO THE FURTHEST CAMPSITE OUTLET ON THE CIRCUIT, TO 3% (3.6 VOLTS ON EACH 120 V. PHASE). ADJUST CONDUCTOR SIZE BASED ON ACTUAL ROUTING WITH NO ADDITIONAL COMPENSATION.
4. PROVIDE TWO EXTRA COMPLETE OUTLET POSTS AND TURN OVER TO OWNER.

FRONT VIEW



SCHEMATIC OF CAMPSITE 50 AMP POWER SERVICE

CAMPGROUND ELECTRICAL SYSTEM
STANDARD DRAWING NO. SC-1

DETAILS OF CAMPSITE OUTLET POST

REVISION DATE 10/26/06

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

ELECTRICAL DETAILS

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 35

CIRCUIT SCHEDULE

CIRCUIT OR CONDUCTOR	NO. OF CAMP SITES	FACILITY OR CAMPSITE NUMBERS SERVED	TRENCH LENGTH			LENGTH OF ROAD XING CONDUIT (FT.)	LENGTH OF WARNING TAPE (FT.)	C. B. OR FUSE SIZE (AMP)	SIZE (AWG) & LENGTH (FT.) OF GR. CONDUCTOR (TYPE THW OR USE)							SIZE (AWG) & LENGTH (FT.) OF CONDUCTOR										
																TYPE U.S.E.									TYPE T.H.W.	TYPE T.F.N.
			SGL.	DBL.	TRPL.				#8	#6	#4	#2	#1/0	#2/0	#3/0	#1	#1/0	#2/0	#3/0	#4/0	250 MCM	300 MCM	350 MCM	500 MCM	600 MCM	1500 MCM
MAIN CIRCUIT		EXISTING 600 AMP																								
		DISTRIBUTION PANEL 1																								
		FROM 150 KVA TRANSFORMER																								
1N/1GR			522			30 (3")	492	200/2-P				587								149	110	328				
1A	6	1,2,4,8,9,10																		149	110	328				
1B	(6)	(1,2,4,8,9,10)																		149	110	328				
2N/2GR			460			40 (2.5")	420	200/2-P				524								289	235					
2A	6	3,5,6,7,11,13																		289	235					
2B	(6)	(3,5,6,7,11,13)																		289	235					
3N/3GR			440			60 (2.5")	380	175/2-P			75	430						75		430						
3A	6	56,59,KIOSK,60,58,57																75		430						
3B	(6)	(56,59,KIOSK,60,58,57)																75		430						
MAIN CIRCUIT		600 AMP DISTRIBUTION PANEL 2																								
		FROM 150 KVA TRANSFORMER																								
		WIRING BY ALLAMAKEE REC																								
4N/4GR			395			25 (2")	370	200/2-P			240	220							240	220						
4A	6	21,20,18,17,12,14																	240	220						
4B	(6)	(21,20,18,17,12,14)																	240	220						
5N/5GR			465			30 (2.5")	435	150/2-P			376	135						195	181	135						
5A	4	22,19,16,15																195	181	135						
5B	(4)	(22,19,16,15)																195	181	135						
6N/6GR			552			60 (3")	492	200/2-P				627								81	133	134	279			
6A	7	38,37,36,35,34,33,29																		81	133	134	279			
6B	(7)	(38,37,36,35,34,33,29)																		81	133	134	279			
MAIN CIRCUIT		EXISTING 600 AMP																								
		DISTRIBUTION PANEL 1																								
		FROM TRANSFORMER																								
7N/7GR			412				412	200/2-P				487								487						
7A	7	54,52,50,48,46,45,43																		487						
7B	(7)	(54,52,50,48,46,45,43)																		487						
8N/8GR			435			40 (2.5")	395	200/2-P			66	434							66	178	256					
8A	6	55,53,51,49,47,44																	66	178	256					
8B	(6)	(55,53,51,49,47,44)																	66	178	256					
		INSTALL 200 AMP SERVICE						200/2-P																		
		TO EXISTING SHOWER BLDG																								
MAIN CIRCUIT		400 AMP DISTRIBUTION PANEL 5																								
		FROM 50 KVA TRANSFORMER																								
		WIRING BY ALLAMAKEE REC																								
9N/9GR			421			120 (2.5")	301	200/2-P				486								486						
9A	6	28,27,26,24,25,23																		486						
9B	(6)	(28,27,26,24,25,23)																		486						
10N/10GR			419				419	200/2-P			65	429							65	283	146					
10A	7	30,31,32,39,40,41,42																	65	283	146					
10B	(7)	(30,31,32,39,40,41,42)																	65	283	146					
SUB-TOTAL	48	SECONDARY CIRCUITS	4521	–	–	405	4116	–	–	–	822	4359	–	–	–	–	–	810	1656	8214	2640	1386	837	–	–	–
SUB-TOTAL	–	MAIN CIRCUITS	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TOTAL	48	FOR ALL CIRCUITS	4521	–	–	405	4116	–	–	–	822	4359	–	–	–	–	–	810	1656	8214	2640	1386	837	–	–	–

25 (2")
290 (2.5")
90 (3")

1. CONSISTENTLY THROUGHOUT THE PROJECT, THE PHASE "A" CONDUCTOR, THE PHASE "B" CONDUCTOR, AND THE NEUTRAL CONDUCTOR SHALL BE DISTINGUISHED FROM EACH OTHER BY COLOR CODING, OR BY SURFACE DEFORMATIONS OR OTHER MARKINGS IN THE CONDUCTOR INSULATION. THE GROUND CONDUCTORS SHALL HAVE GREEN COLORED INSULATION.
2. THE CONDUCTOR SIZES AND THE PLAN ARRANGEMENT OF THE LOADS ON EACH CIRCUIT WERE SELECTED TO LIMIT THE MAXIMUM CIRCUIT VOLTAGE DROP, FROM THE TRANSFORMER TO THE FURTHEST CAMPSITE OUTLET ON THE CIRCUIT, TO 3% (3.6 VOLTS ON EACH 120V PHASE).
3. ALL CONDUCTORS SHALL BE COPPER.

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

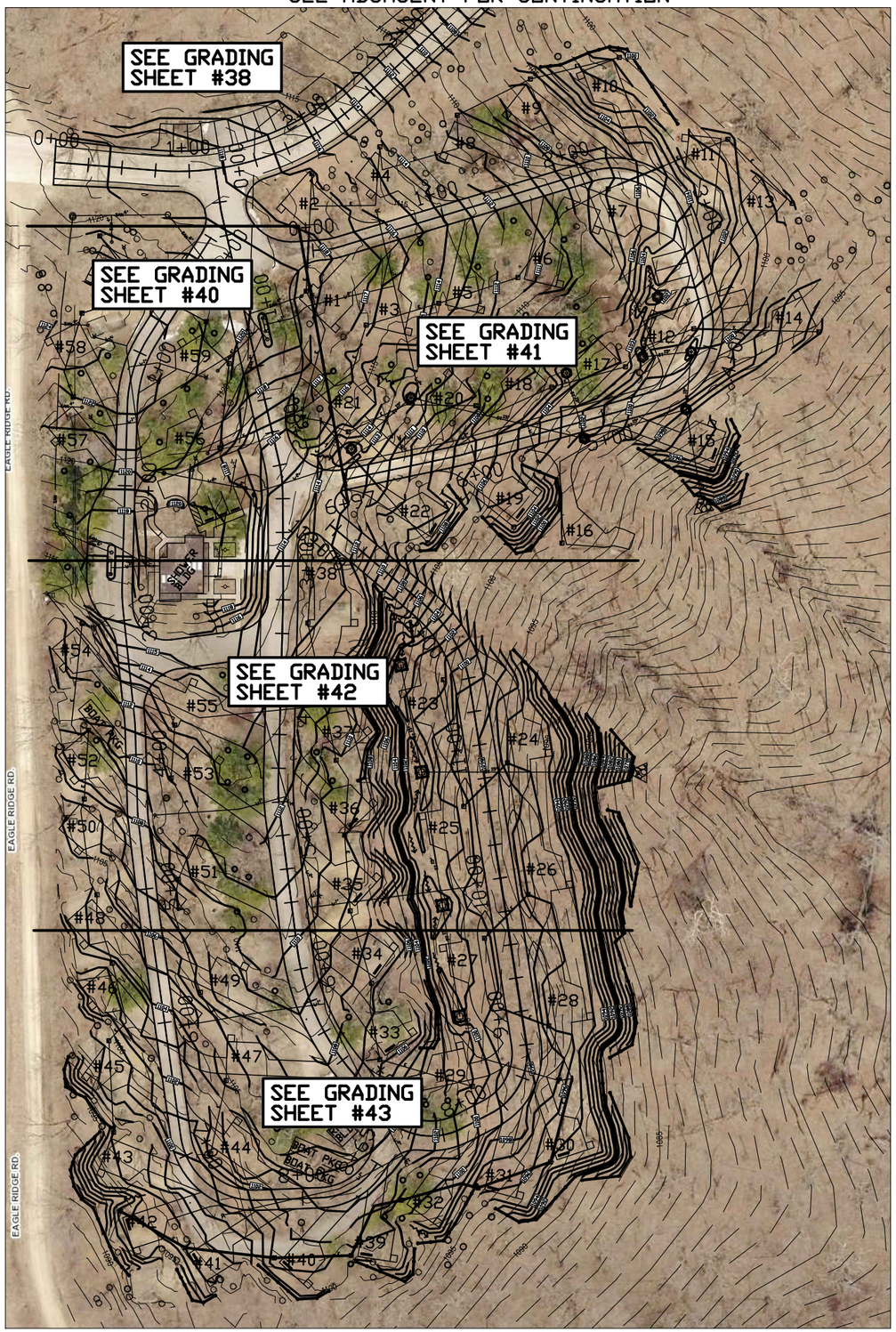
ELECTRICAL DETAILS

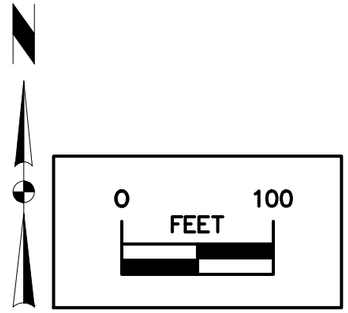
CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY	DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 36

SEE ADJACENT FOR CONTINUATION

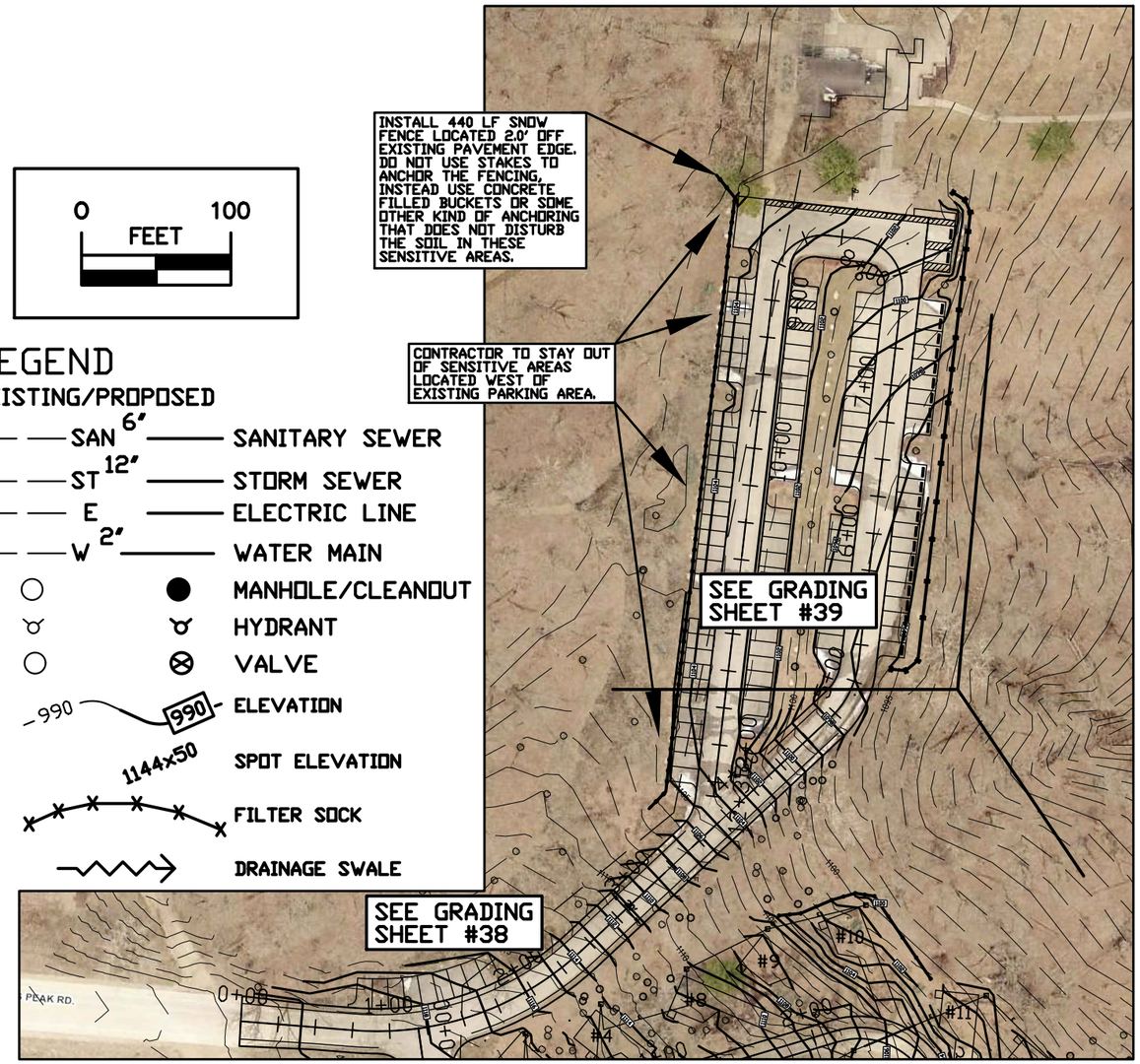




LEGEND

EXISTING/PROPOSED

- SAN 6" — SANITARY SEWER
- ST 12" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- MANHOLE/CLEANOUT
- HYDRANT
- VALVE
- 990 — ELEVATION
- 1144x50 — SPOT ELEVATION
- FILTER SOCK
- DRAINAGE SWALE



SEE ADJACENT FOR CONTINUATION

GENERAL NOTES

1. TWO WEEKS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY:
   A. IOWA DNR PROJECT MANAGER: BRETT JOHNSON 515-250-3711
   B. DISTRICT INSPECTOR: MELVIN PACOVSKY 319-240-3553
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH STATEWIDE URBAN STANDARD DESIGN SPECIFICATIONS FOR PUBLIC IMPROVEMENTS (SUDAS). ALL CONSTRUCTION TESTING TO BE IN ACCORDANCE WITH SUDAS AND IS THE EXPENSE OF THE CONTRACTORS.
3. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF CONSTRUCTION AND NOTIFY THE ABOVE MENTIONED CONTACTS OF ANY DISCREPANCIES.
4. THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING FACILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION WITHOUT UNCOVERING AND MEASURING. THE ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL PUBLIC AND/OR PRIVATE UTILITIES SERVING THE AREA TO DETERMINE THE PRESENT EXTENT AND LOCATION OF THEIR FACILITIES BEFORE BEGINNING WORK.
5. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROPER UTILITY IMMEDIATELY UPON BREAKING OR DAMAGE TO ANY UTILITY LINE OR APPURTENANCE, OR THE INTERRUPTION OF THEIR SERVICE. HE SHALL NOTIFY THE PROPER UTILITY INVOLVED. IF EXISTING UTILITY LINES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED.
6. CONTRACTOR TO PROTECT ALL UTILITY, PAVING, BUILDINGS, ETC. OUTSIDE OF LIMITS OF PROPOSED CONSTRUCTION.
7. IN THE EVENT THAT THERE IS A DISCREPANCY BETWEEN THE QUANTITIES AND THE PLANS, THE DETAILED PLANS SHALL GOVERN.
8. CONTRACTOR SHALL SEED/MULCH ALL DISTURBED AREAS. USE TYPE 1 (PERMANENT LAWN MIXTURE) SEED MIX AROUND THE SHOWER BUILDING, AND ALONG ROADWAYS. USE TYPE 3 (PERMANENT WARM-SEASON SLOPE AND DITCH MIXTURE) IN ALL OTHER AREAS INCLUDING ALL 3:1 SLOPES.
9. MAINTAIN ALL CUT AND FILL AREAS TO ACCOMMODATE SURFACE DRAINAGE.
10. FINISHED GRADE ON ALL NON-PAVED AREAS SHALL BE WITHIN 0.20 FOOT OF PLAN GRADE. PAVED AREAS SHALL BE WITHIN 0.10 FOOT.
11. TOPSOIL SHALL BE SPREAD TO A MINIMUM THICKNESS OF 4-INCHES ON ALL DISTURBED UNPAVED AREAS.
12. BACKFILL TO THE TOP OF ALL ROCK OR PAVED SURFACES.
13. ALL ELEVATIONS ARE TO THE GUTTER GRADE UNLESS NOTED OTHERWISE.
14. PROTECT ALL EXISTING TREES AND VEGETATION UNLESS OTHERWISE NOTED.
15. ANY SPOIL MATERIAL THAT MAY BE GENERATED DURING THE CONSTRUCTION, COORDINATE LOCATION FOR DISPOSITION WITH THE DNR INSPECTOR AND IS CONSIDERED INCIDENTAL TO THE PROJECT. THE AREA IN THE SOUTHEAST OF THE PROJECT SITE CAN BE USED AS A POSSIBLE LOCATION FOR ANY SPOIL MATERIAL (SEE SHEETS #42 & 43 FOR DETAILS).

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

OVERALL GRADING PLAN

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

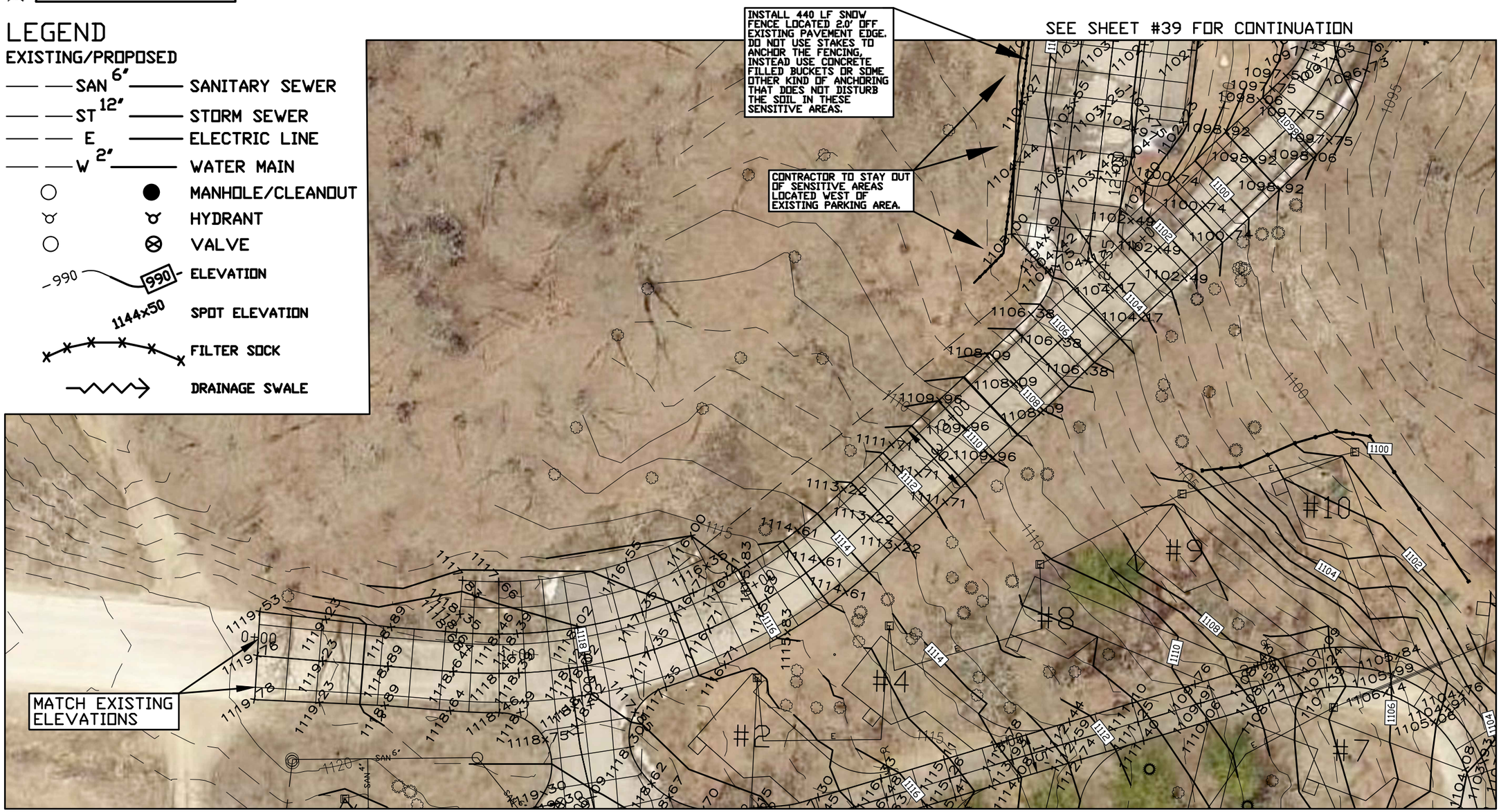
DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 37

0 40
FEET

LEGEND

EXISTING/PROPOSED

- SAN 6" — SANITARY SEWER
- ST 12" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- MANHOLE/CLEANOUT
- HYDRANT
- VALVE
- 990 — ELEVATION
- 1144x50 — SPOT ELEVATION
- FILTER SOCK
- DRAINAGE SWALE



SEE SHEET #39 FOR CONTINUATION

SEE SHEET #40 FOR CONTINUATION

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

GRADING PLAN

CONSTRUCTION PROJECT FOR:

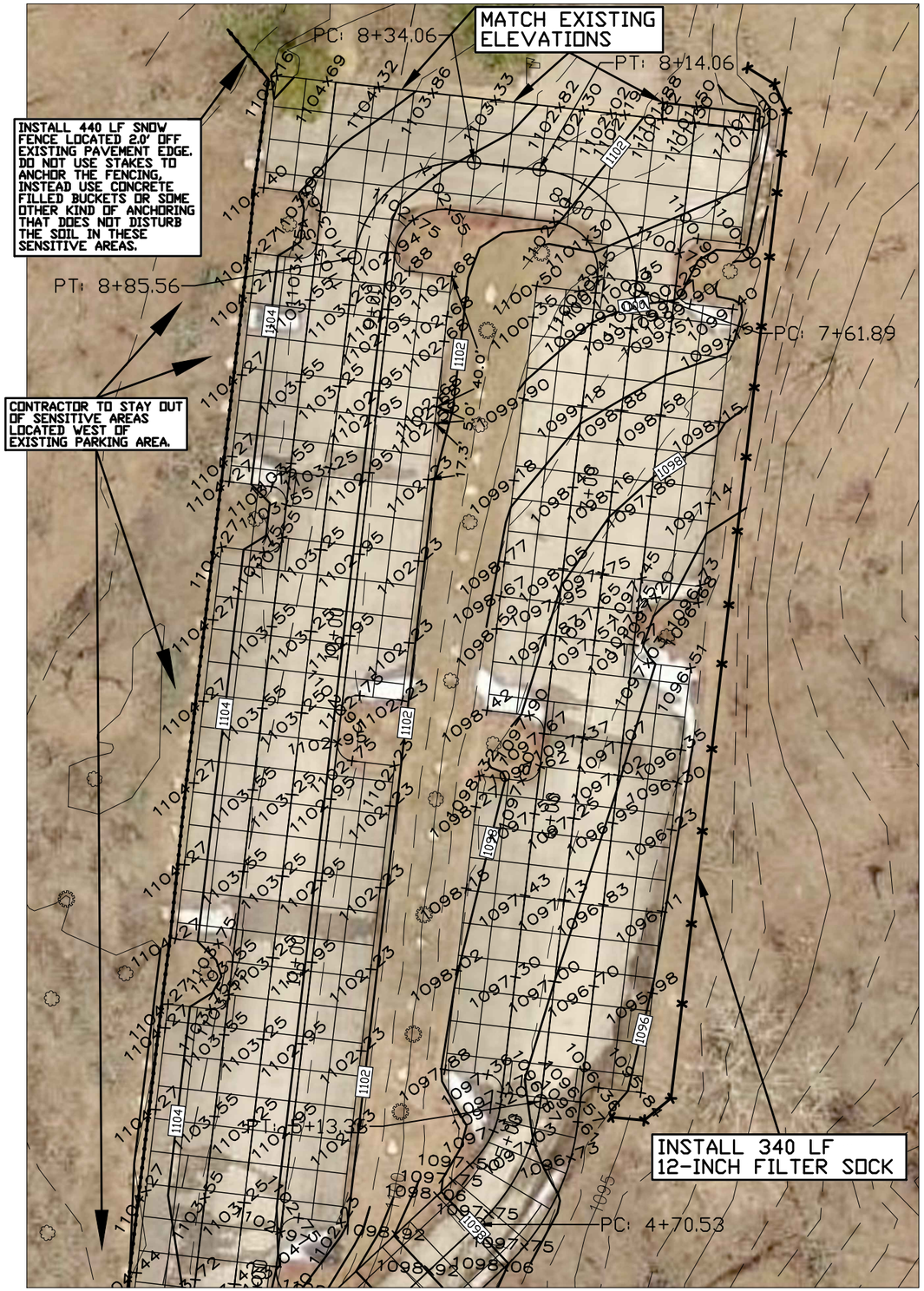
PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

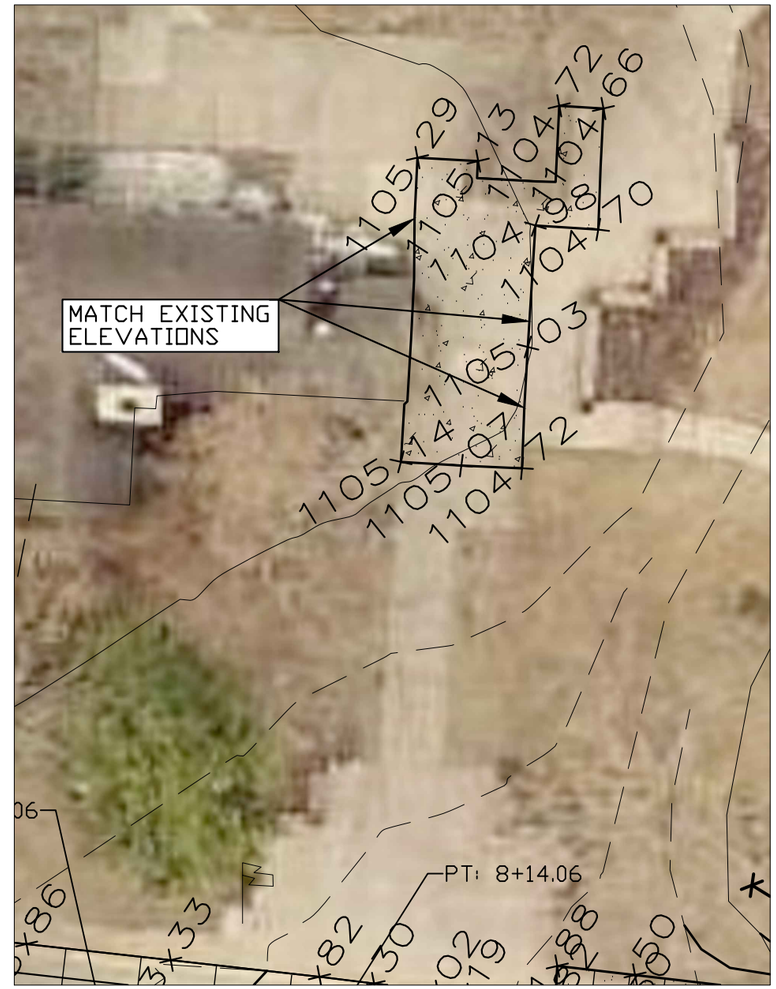
NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 38

SEE ADJACENT FOR CONTINUATION



SEE SHEET #38 FOR CONTINUATION



SEE ADJACENT FOR CONTINUATION

0 FEET 20

0 FEET 40

LEGEND

EXISTING/PROPOSED

- SAN 6" — SANITARY SEWER
- ST 12" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- MANHOLE/CLEANOUT
- HYDRANT
- VALVE
- 990 — ELEVATION
- 1144x50 — SPOT ELEVATION
- FILTER SOCK
- DRAINAGE SWALE

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

GRADING PLAN

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:

PROJECT NUMBER: 21-03-22-01

CHK'D BY:

DATE: 5/01/2021

SHEET No: 39

0 40
FEET

INSTALL ENGINEERING FABRIC (7,770 SY TOTAL) ON TOP OF COMPACTED SUBGRADE WITH A 4-INCH DEPTH MACADAM STONE (1,515 TONS TOTAL) AND A 2-INCH CAP LAYER OF CLASS 'A' CRUSHED STONE (990 TONS TOTAL, ALLOWS FOR 10% SHRINK) FOR EACH CAMPPAD (TYP).

LEGEND
EXISTING/PROPOSED

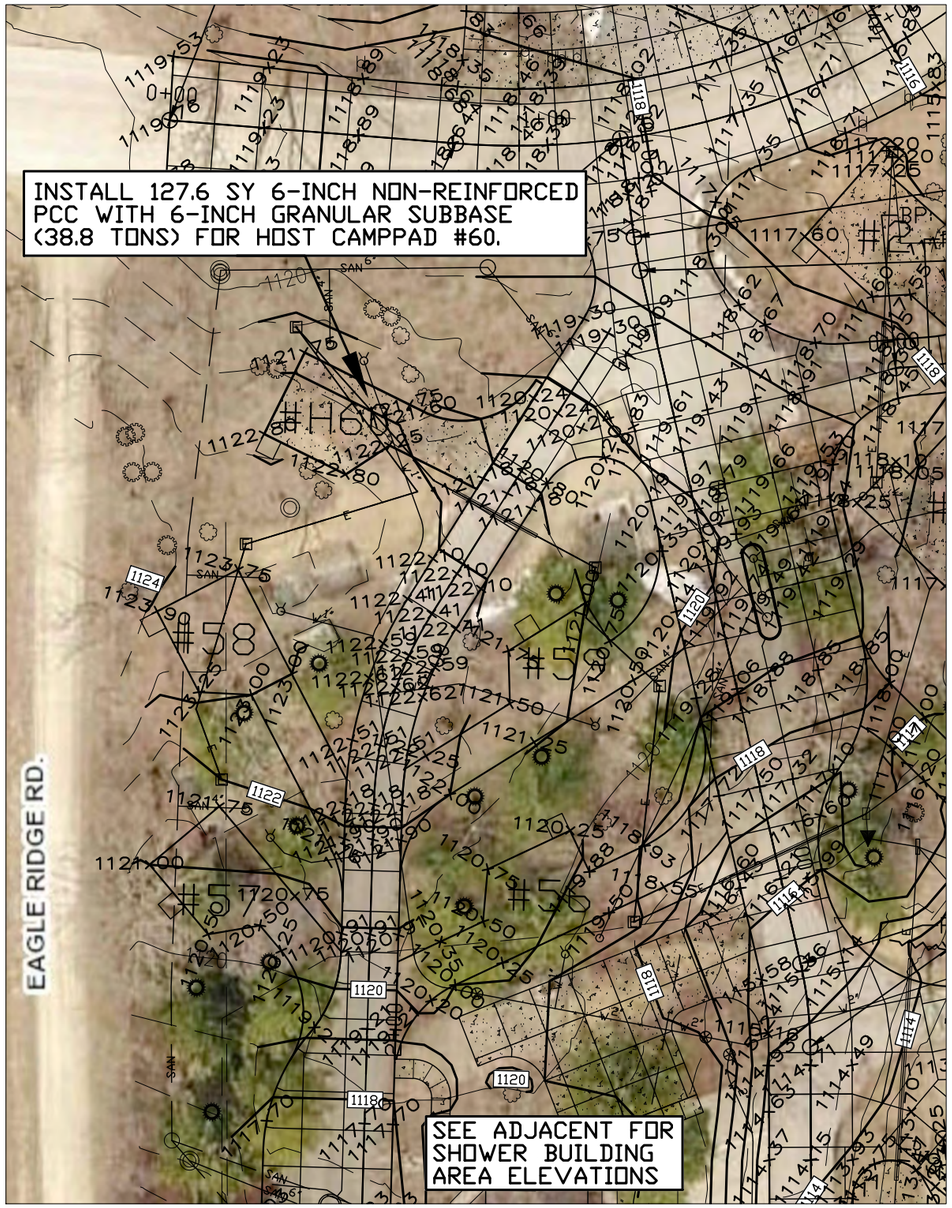
- SAN 6" — SANITARY SEWER
- ST 12" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- MANHOLE/CLEANOUT
- HYDRANT

LEGEND
EXISTING/PROPOSED

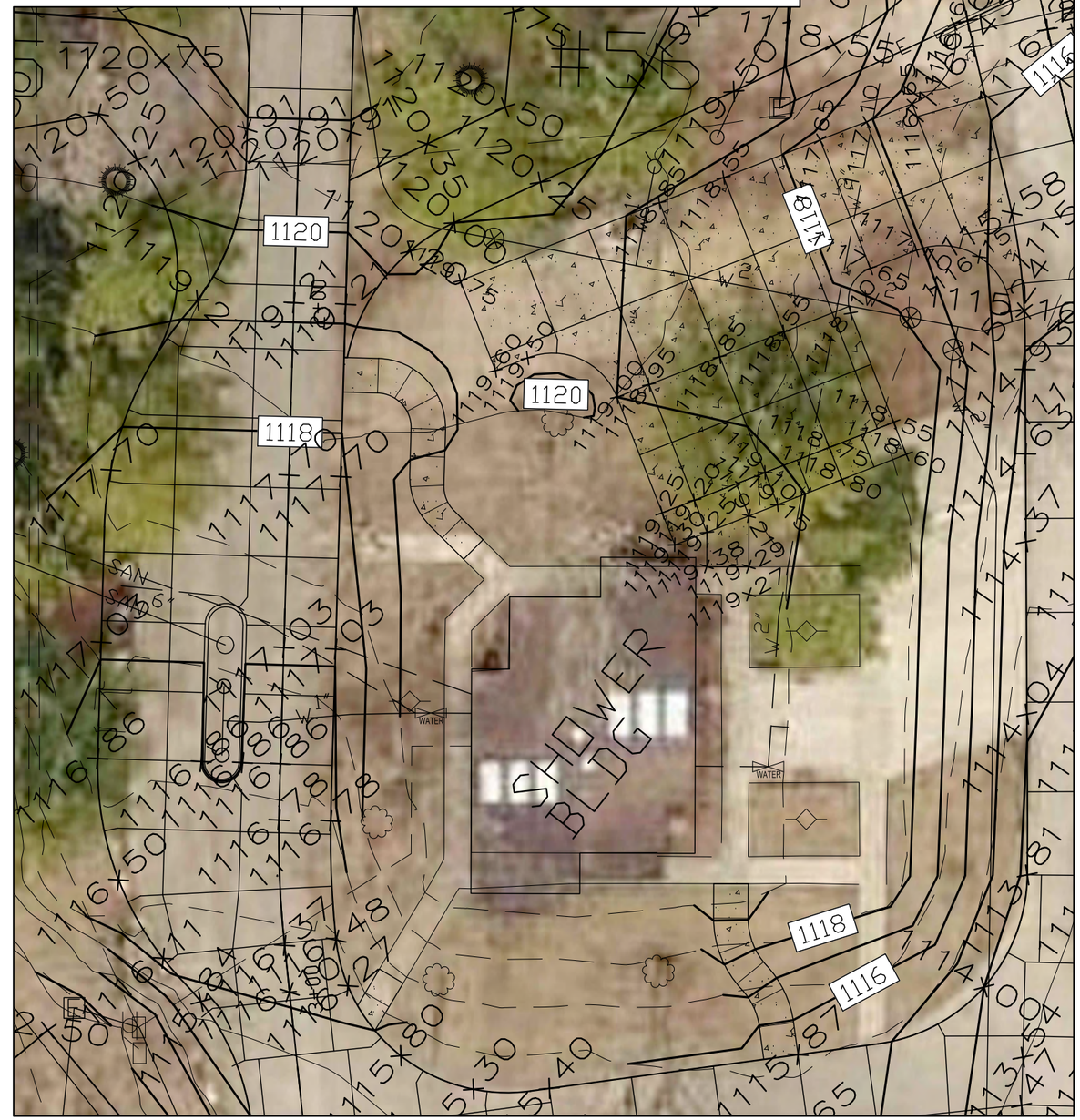
- VALVE
- 990 — ELEVATION
- 1144x50 — SPOT ELEVATION
- FILTER SOCK
- DRAINAGE SWALE

0 20
FEET

SEE SHEET #38 FOR CONTINUATION



SEE SHEET #41 FOR CONTINUATION



SEE SHEET #42 FOR CONTINUATION

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

GRADING PLAN

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY: DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 40

LEGEND

EXISTING/PROPOSED

- SAN 6" — SANITARY SEWER
- ST 12" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- MANHOLE/CLEANOUT
- HYDRANT
- VALVE
- 990 — ELEVATION
- 1144x50 — SPOT ELEVATION
- FILTER SOCK
- DRAINAGE SWALE

0 40 FEET

SEE SHEET #38 FOR CONTINUATION

INSTALL 135 LF 12-INCH FILTER SOCK

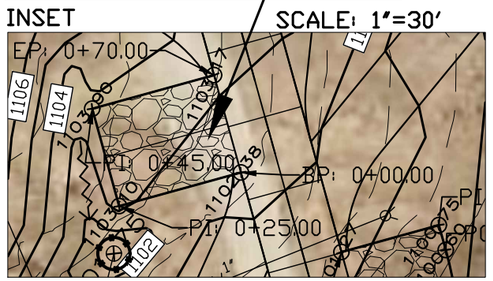
INSTALL ENGINEERING FABRIC (7,770 SY TOTAL) ON TOP OF COMPACTED SUBGRADE WITH A 4-INCH DEPTH MACADAM STONE (1,515 TONS TOTAL) AND A 2-INCH CAP LAYER OF CLASS 'A' CRUSHED STONE (990 TONS TOTAL, ALLOWS FOR 10% SHRINK) FOR EACH CAMPPAD (TYP).

INSTALL 147.1 SY 6-INCH NON-REINFORCED PCC WITH 6-INCH GRANULAR SUBBASE (44.7 TONS) FOR ADA CAMPPAD #2.

INSTALL 178.9 SY 6-INCH NON-REINFORCED PCC WITH 6-INCH GRANULAR SUBBASE (54.3 TONS) FOR ADA CAMPPAD #1.

INSTALL 17.5 TONS CLASS 'A' CRUSHED STONE (6-INCH DEPTH) FOR PARKING AREA #1

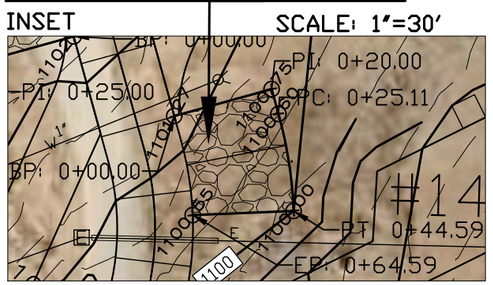
INSET SCALE: 1"=30'



GRAVEL PARKING AREA #1
SEE SHEET #45 FOR GRAVEL EDGE CONTROL

INSTALL 15.6 TONS CLASS 'A' CRUSHED STONE (6-INCH DEPTH) FOR PARKING AREA #2

INSET SCALE: 1"=30'



GRAVEL PARKING AREA #2
SEE SHEET #45 FOR GRAVEL EDGE CONTROL

SEE SHEET #40 FOR CONTINUATION

SEE INSET FOR GRAVEL PARKING INFORMATION

TOP OF BERM=1102.50'

TOP OF BERM=1101.90'

TOP OF BERM=1104.50'

INSTALL 20 LF 12-INCH FILTER SOCK AROUND EACH SW-512 CIRCULAR INTAKE (8 TOTAL)

INSTALL 115 LF 12-INCH FILTER SOCK

INSTALL 135 LF 12-INCH FILTER SOCK

INSTALL 75 LF 12-INCH FILTER SOCK

INSTALL 70 LF 12-INCH FILTER SOCK

INSTALL 10.0 TONS CLASS 'A' CRUSHED STONE FOR CAMPPAD ENTRANCE

SEE SHEET #42 FOR CONTINUATION

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

GRADING PLAN

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:

PROJECT NUMBER: 21-03-22-01

CHK'D BY:

DATE: 5/01/2021

SHEET No: 41

LEGEND
EXISTING/PROPOSED

- SAN 6" — SANITARY SEWER
- ST 12" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- MANHOLE/CLEANOUT
- HYDRANT
- VALVE

LEGEND
EXISTING/PROPOSED

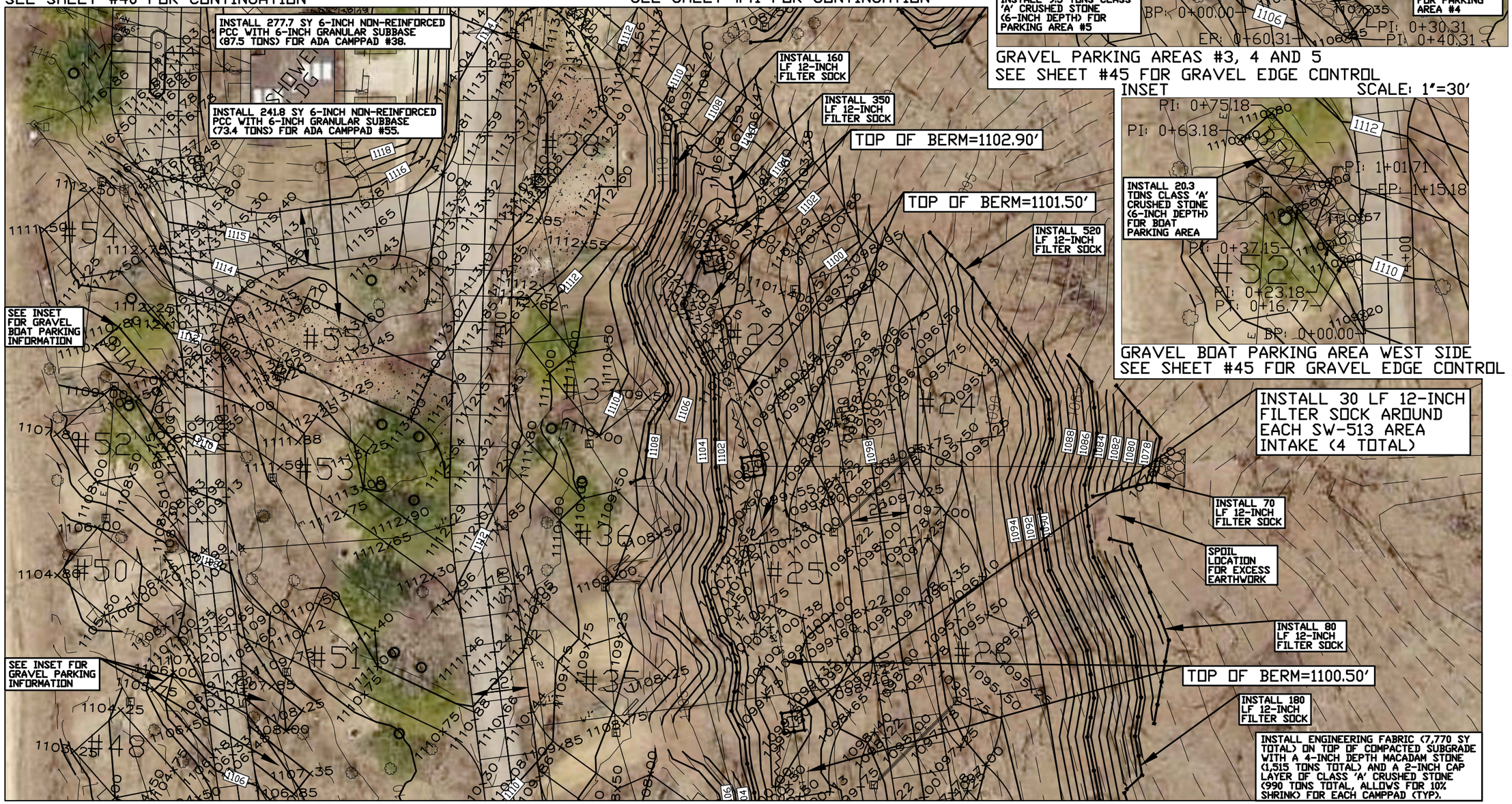
- 990 — ELEVATION
- 1144x50 — SPOT ELEVATION
- FILTER SOCK
- DRAINAGE SWALE

0 40
FEET

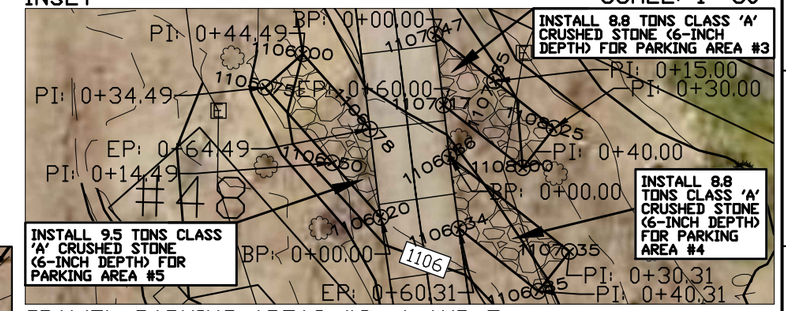
NOTES
1. CAMPPAD GRAVEL THAT WAS REMOVED DURING THE DEMOLITION AND CLEARING AND GRUBBING CAN BE USED IN DEEP FILL LOCATIONS ON CAMPPADS #24, 26 28 AND 30. CONTRACTOR SHALL COMPACT THIS FILL TO 95% STANDARD DENSITY IN LIFTS IN ACCORDANCE WITH SUDAS.
2. ANY SPOILS OF EARTHWORK THAT ARE GENERATED CAN BE WASTED IN THE AREAS SHOWN. CONTRACTOR TO COMPACT IN ACCORDANCE WITH SUDAS FOR FILL MATERIAL.

SEE SHEET #40 FOR CONTINUATION

SEE SHEET #41 FOR CONTINUATION



INSET SCALE: 1"=30'



GRAVEL PARKING AREAS #3, 4 AND 5
SEE SHEET #45 FOR GRAVEL EDGE CONTROL

INSET SCALE: 1"=30'

GRAVEL BOAT PARKING AREA WEST SIDE
SEE SHEET #45 FOR GRAVEL EDGE CONTROL

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

GRADING PLAN
CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 42

0 40
FEET

LEGEND
EXISTING/PROPOSED

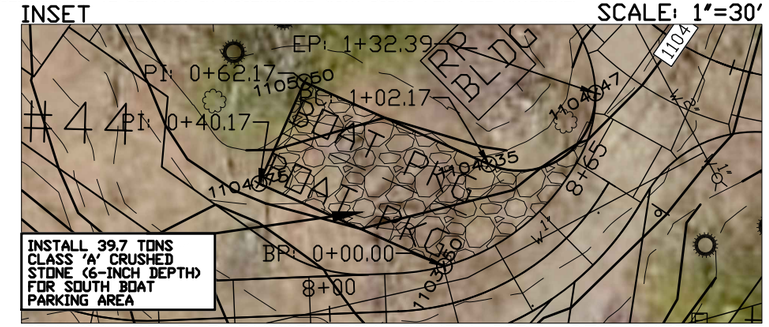
- SAN 6" — SANITARY SEWER
- ST 12" — STORM SEWER
- E — ELECTRIC LINE
- W 2" — WATER MAIN
- MANHOLE/CLEANOUT
- HYDRANT
- VALVE

LEGEND
EXISTING/PROPOSED

- 990 — ELEVATION
- 1144x50 — SPOT ELEVATION
- FILTER SOCK
- DRAINAGE SWALE

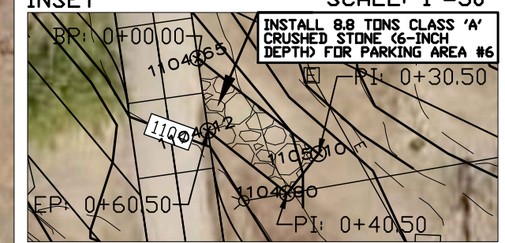
NOTES
1. CAMPPAD GRAVEL THAT WAS REMOVED DURING THE DEMOLITION AND CLEARING AND GRUBBING CAN BE USED IN DEEP FILL LOCATIONS ON CAMPPADS #24, 26 28 AND 30. CONTRACTOR SHALL COMPACT THIS FILL TO 95% STANDARD DENSITY IN LIFTS IN ACCORDANCE WITH SUDAS.
2. ANY SPOILS OF EARTHWORK THAT ARE GENERATED CAN BE WASTED IN THE AREAS SHOWN. CONTRACTOR TO COMPACT IN ACCORDANCE WITH SUDAS FOR FILL MATERIAL.

INSET SCALE: 1"=30'



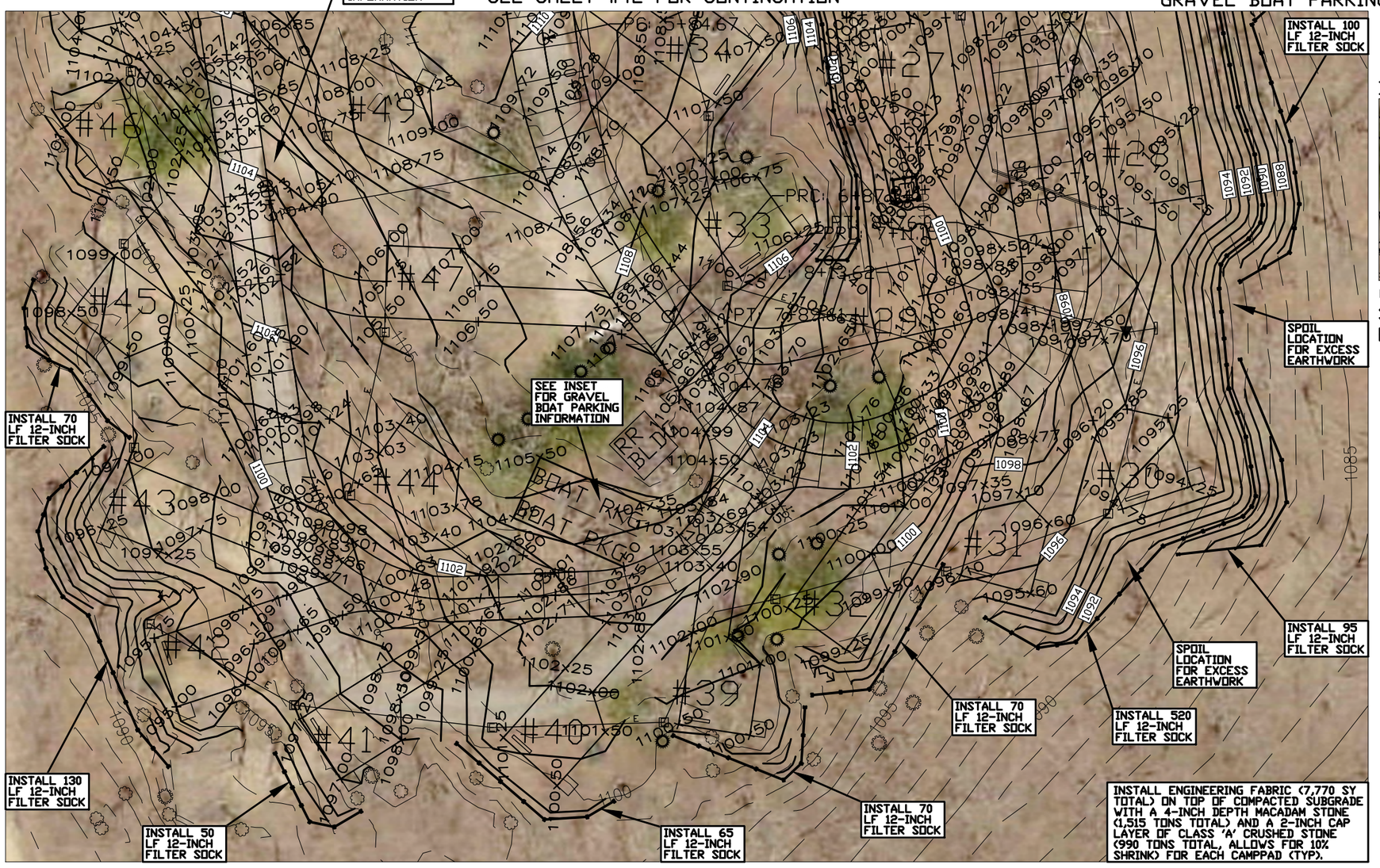
GRAVEL BOAT PARKING AREA SOUTH SIDE, SEE SHEET #45 FOR GRAVEL EDGE CONTROL

INSET SCALE: 1"=30'



GRAVEL PARKING AREAS #6
SEE SHEET #45 FOR GRAVEL EDGE CONTROL

SEE SHEET #42 FOR CONTINUATION



CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

GRADING PLAN
CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 43

BLANK

SHEET No:
44

CHECK BY:
DATE:
5/01/2021

DRAWN BY:
PROJECT NUMBER:
21-03-22-01

NO. DATE REVISION

GRADING PLAN

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND
UPGRADE PROJECT

CLAYTON COUNTY, IOWA

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CONSULTANT:

GRAVEL PARKING AREA #1 EDGE CONTROL

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	25.00'		S74° 33' 46"W	0+00.00'	0+25.00'				(5546081.6060',3834113.7588',1102.38')	(5546057.5080',3834107.1043',1103.10')	
2	Line	20.00'		N15° 26' 14"W	0+25.00'	0+45.00'				(5546057.5080',3834107.1043',1103.10')	(5546052.1843',3834126.3827',1103.90')	
3	Line	25.00'		N74° 33' 46"E	0+45.00'	0+70.00'				(5546052.1843',3834126.3827',1103.90')	(5546076.2824',3834133.0373',1103.17')	

GRAVEL PARKING AREA #2 EDGE CONTROL

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	20.00'		N74° 33' 46"E	0+00.00'	0+20.00'				(5546101.5131',3834098.0218',1101.27')	(5546120.7916',3834103.3455',1100.75')	
2	Line	5.11'		S15° 26' 14"E	0+20.00'	0+25.11'				(5546120.7916',3834103.3455',1100.75')	(5546122.1523',3834098.4178',1100.60')	
3	Curve	19.48'	85.00'		0+25.11'	0+44.59'	13.1278 (d)	19.43'	S8° 52' 24"E	(5546122.1523',3834098.4178',1100.60')	(5546125.1499',3834079.2174',1100.00')	(5546040.2189',3834075.7923')
4	Line	20.00'		S87° 41' 26"W	0+44.59'	0+64.59'				(5546125.1499',3834079.2174',1100.00')	(5546105.1661',3834078.4115',1100.55')	

GRAVEL PARKING AREA #3 EDGE CONTROL

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point
1	Line	15.00'		S51° 40' 44"E	0+00.00'	0+15.00'				(5545683.4676',3833669.4039',1107.47')	(5545695.2358',3833660.1028',1107.85')
2	Line	15.00'		S51° 40' 44"E	0+15.00'	0+30.00'				(5545695.2358',3833660.1028',1107.85')	(5545707.0040',3833650.8018',1108.25')
3	Line	10.00'		S38° 19' 16"W	0+30.00'	0+40.00'				(5545707.0040',3833650.8018',1108.25')	(5545700.8033',3833642.9563',1108.00')
4	Line	20.00'		N51° 40' 44"W	0+40.00'	0+60.00'				(5545700.8033',3833642.9563',1108.00')	(5545685.1123',3833655.3577',1107.17')

GRAVEL PARKING AREA #4 EDGE CONTROL

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point
1	Line	30.31'		S51° 40' 44"E	0+00.00'	0+30.31'				(5545686.3059',3833645.1648',1106.86')	(5545710.0887',3833626.3679',1107.35')
2	Line	10.00'		S38° 19' 16"W	0+30.31'	0+40.31'				(5545710.0887',3833626.3679',1107.35')	(5545703.8880',3833618.5224',1106.85')
3	Line	20.00'		N51° 40' 44"W	0+40.31'	0+60.31'				(5545703.8880',3833618.5224',1106.85')	(5545688.1971',3833630.9238',1106.34')

GRAVEL PARKING AREA #5 EDGE CONTROL

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point
1	Line	14.49'		N41° 40' 44"W	0+00.00'	0+14.49'				(5545672.7355',3833633.1191',1106.20')	(5545663.0990',3833643.9430',1106.50')
2	Line	20.00'		N41° 40' 44"W	0+14.49'	0+34.49'				(5545663.0990',3833643.9430',1106.50')	(5545649.7999',3833658.8807',1105.75')
3	Line	10.00'		N48° 19' 16"E	0+34.49'	0+44.49'				(5545649.7999',3833658.8807',1105.75')	(5545657.2688',3833665.5302',1106.00')
4	Line	20.00'		S41° 40' 44"E	0+44.49'	0+64.49'				(5545657.2688',3833665.5302',1106.00')	(5545670.5678',3833650.5925',1106.78')

GRAVEL PARKING AREA #6 EDGE CONTROL

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point
1	Line	30.50'		S51° 40' 44"E	0+00.00'	0+30.50'				(5545694.6715',3833585.2840',1104.65')	(5545718.5996',3833566.3723',1105.10')
2	Line	10.00'		S38° 19' 16"W	0+30.50'	0+40.50'				(5545718.5996',3833566.3723',1105.10')	(5545712.3989',3833558.5268',1104.90')
3	Line	20.00'		N51° 40' 44"W	0+40.50'	0+60.50'				(5545712.3989',3833558.5268',1104.90')	(5545696.7080',3833570.9282',1104.12')

GRAVEL BOAT PARKING AREA WEST SIDE OF WEST ROAD

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	16.77'	25.00'		0+00.00'	0+16.77'	38.4233 (d)	16.45'	N20° 47' 17"W	(5545662.5334',3833740.5749',1109.20')	(5545656.6941',3833755.9566',1110.00')	(5545637.5430',3833739.8872')
2	Line	6.42'		N40° 00' 00"W	0+16.77'	0+23.18'				(5545656.6941',3833755.9566',1110.00')	(5545652.5701',3833760.8714',1110.10')	
3	Line	13.97'		N40° 00' 00"W	0+23.18'	0+37.15'				(5545652.5701',3833760.8714',1110.10')	(5545643.5917',3833771.5714',1109.50')	
4	Line	26.03'		N40° 00' 00"W	0+37.15'	0+63.18'				(5545643.5917',3833771.5714',1109.50')	(5545626.8586',3833791.5132',1110.40')	
5	Line	12.00'		N50° 00' 00"E	0+63.18'	0+75.18'				(5545626.8586',3833791.5132',1110.40')	(5545636.0511',3833799.2267',1110.80')	
6	Line	26.53'		S40° 00' 00"E	0+75.18'	1+01.71'				(5545636.0511',3833799.2267',1110.80')	(5545653.1038',3833778.9040',1110.00')	
7	Line	13.47'		S40° 00' 00"E	1+01.71'	1+15.18'				(5545653.1038',3833778.9040',1110.00')	(5545661.7626',3833768.5849',1110.57')	

GRAVEL BOAT PARKING AREA SOUTH SIDE OF WEST ROAD

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	40.17'		N66° 00' 04"W	0+00.00'	0+40.17'				(5545815.8698',3833438.5108',1103.50')	(5545779.1751',3833454.8475',1104.75')	
2	Line	22.00'		N23° 59' 56"E	0+40.17'	0+62.17'				(5545779.1751',3833454.8475',1104.75')	(5545788.1229',3833474.9457',1105.50')	
3	Line	40.00'		S66° 00' 04"E	0+62.17'	1+02.17'				(5545788.1229',3833474.9457',1105.50')	(5545824.6650',3833458.6769',1104.35')	
4	Curve	30.22'	15.00'		1+02.17'	1+32.39'	115.4375 (d)	25.36'	N56° 16' 49"E	(5545824.6650',3833458.6769',1104.35')	(5545845.7611',3833472.7567',1104.47')	(5545830.7658',3833472.3802')

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILING
502 E. 9TH ST., DES MOINES, IA 50319-0034

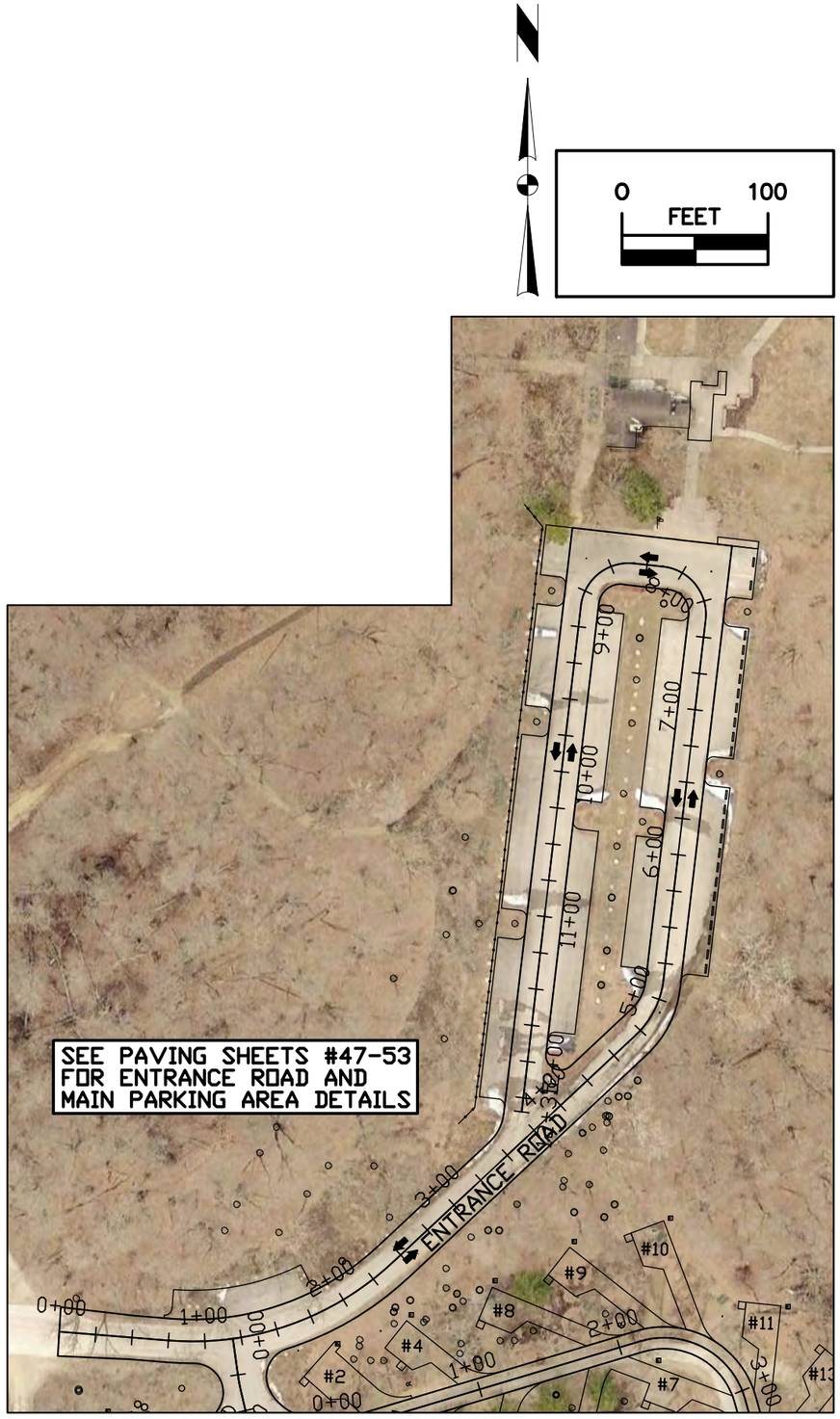
GRAVEL PARKING AREA CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

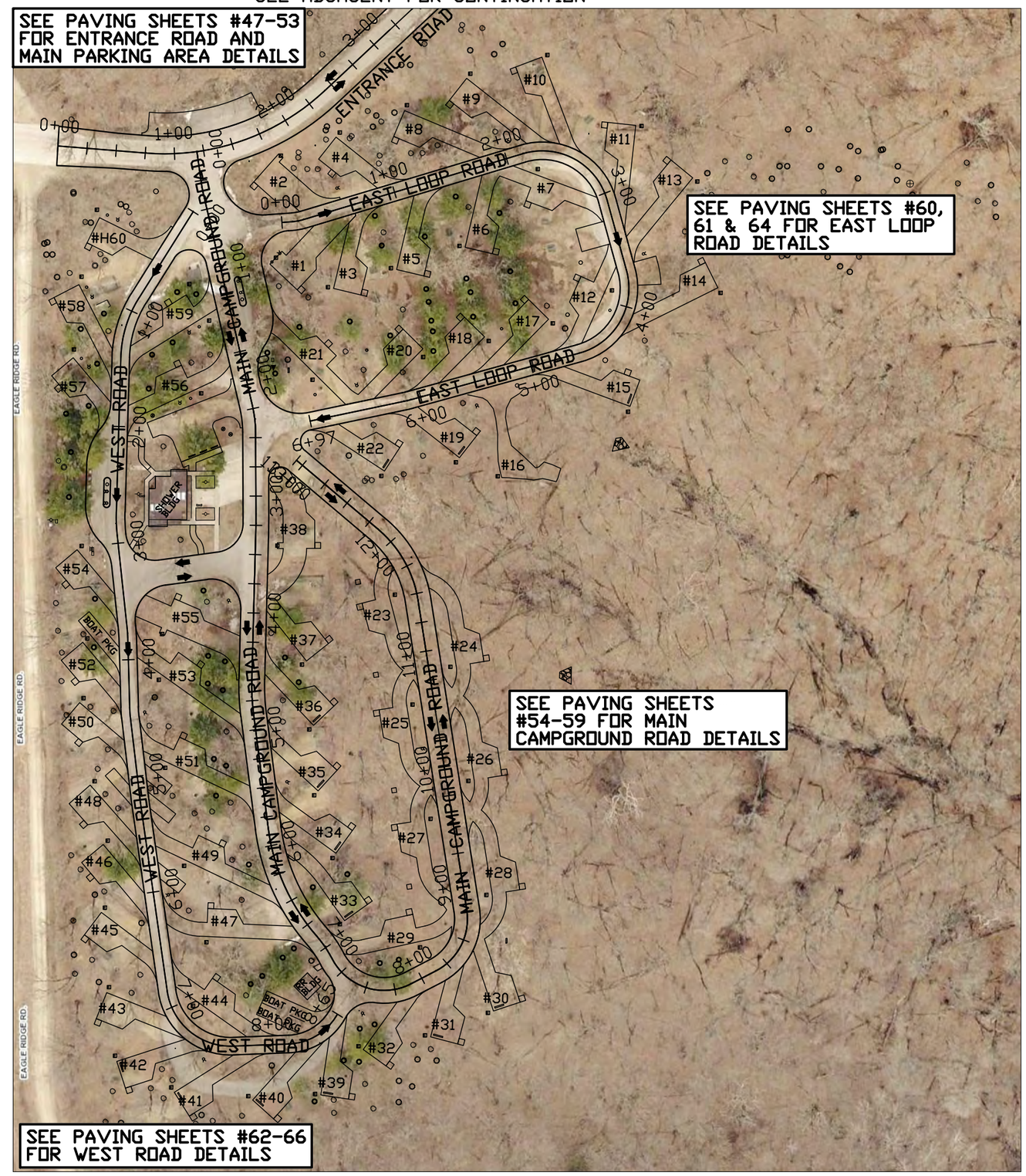
NO.	BY / DATE	REVISION

DRAWN BY:
CHK'D BY:
PROJECT NUMBER: 21-03-22-01
DATE: 5/01/2021
SHEET No: 45

SEE ADJACENT FOR CONTINUATION



SEE ADJACENT FOR CONTINUATION



CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

OVERALL PAVING PLAN

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY: DATE	REVISION

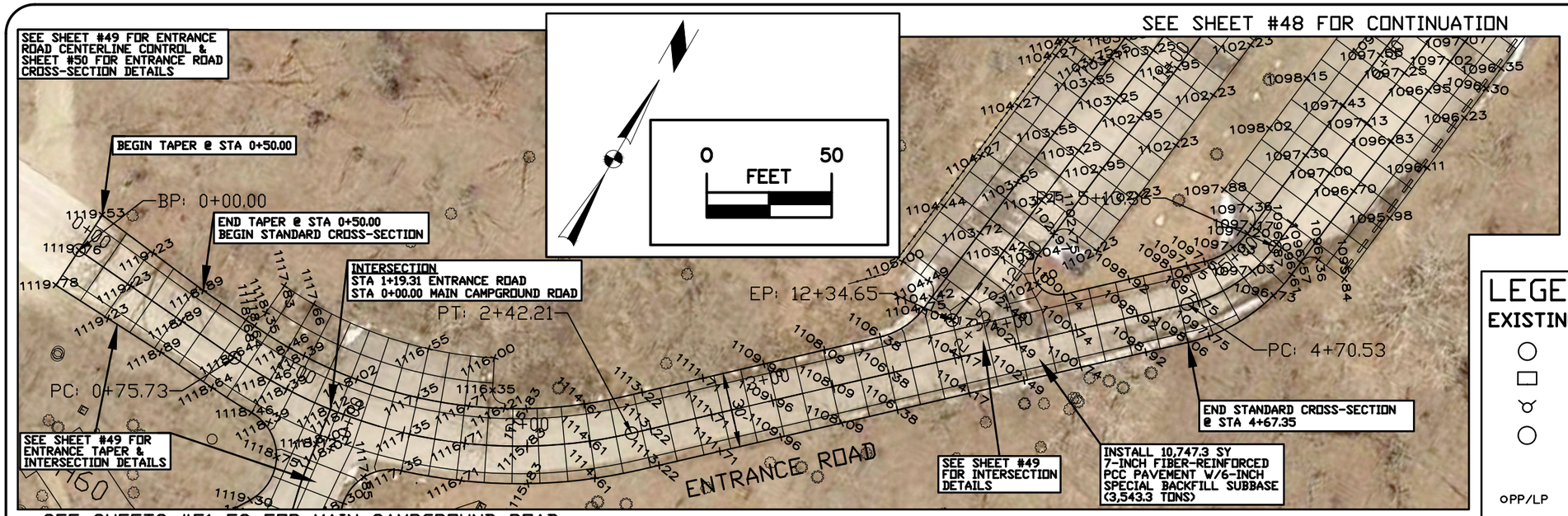
DRAWN BY:

PROJECT NUMBER: 21-03-22-01

CHK'D BY:

DATE: 5/01/2021

SHEET No: 46

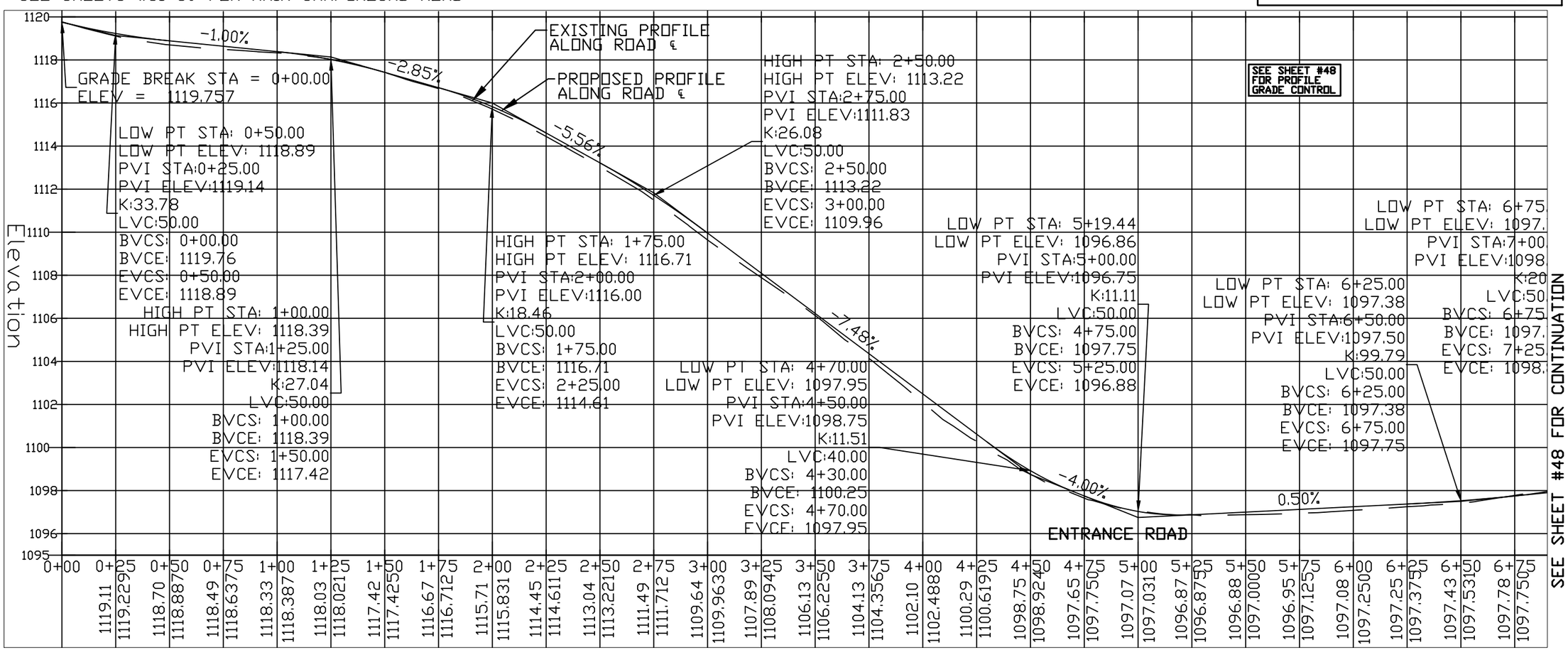


SEE SHEETS #51-59 FOR MAIN CAMPGROUND ROAD

LEGEND

EXISTING/PROPOSED

- MANHOLE
- INTAKE
- HYDRANT
- VALVE
- OUTLET POST
- PP/LP — POWER POLE/ LIGHT POLE



SEE SHEET #48 FOR CONTINUATION

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

PAVING PLAN-ENTRANCE ROAD

CONSTRUCTION PROJECT FOR:

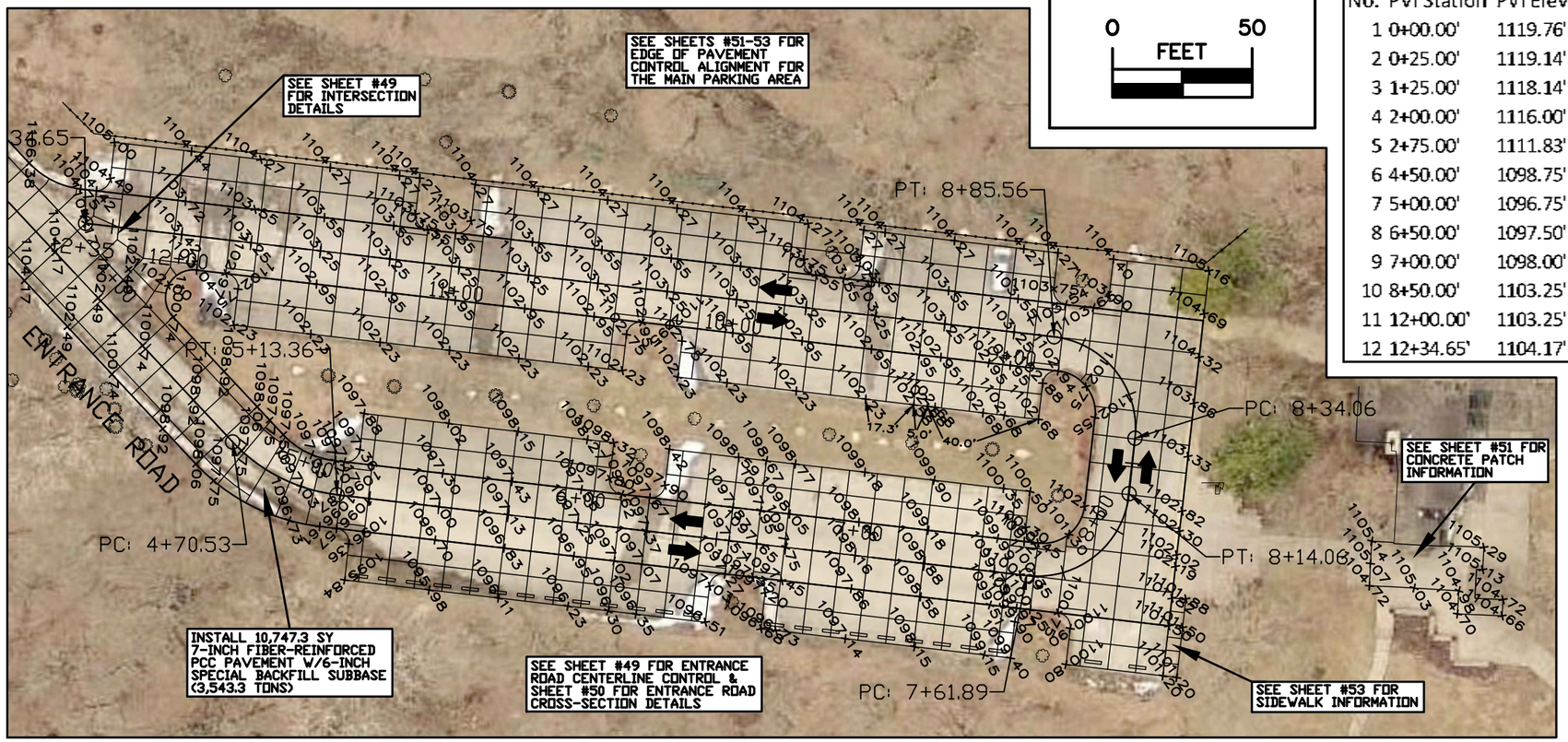
PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 47

SEE SHEET #47 FOR CONTINUATION



PROPOSED PROFILE GRADE ENTRANCE ROAD

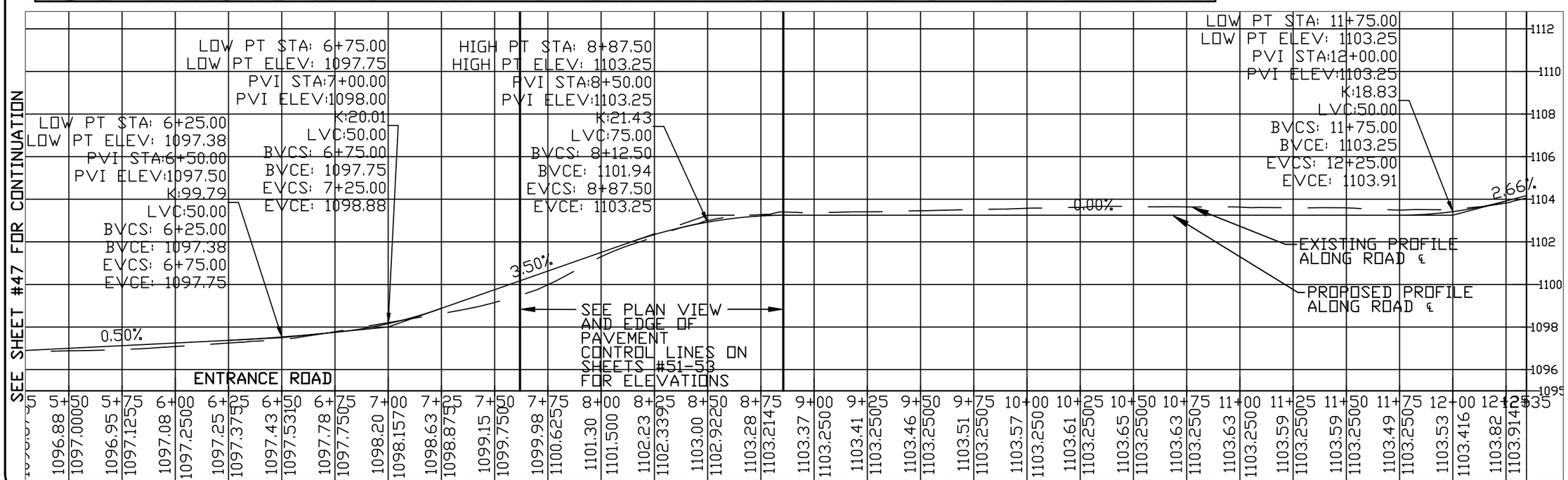
No.	PVI Station	PVI Elev	% In	% Out	% DIFF	TYPE	Length	K Value
1	0+00.00'	1119.76'		-2.48%				
2	0+25.00'	1119.14'	-2.48%	-1.00%	1.48%	Sag	50.00'	33.784
3	1+25.00'	1118.14'	-1.00%	-2.85%	1.85%	Crest	50.00'	27.038
4	2+00.00'	1116.00'	-2.85%	-5.56%	2.71%	Crest	50.00'	18.461
5	2+75.00'	1111.83'	-5.56%	-7.48%	1.92%	Crest	50.00'	26.075
6	4+50.00'	1098.75'	-7.48%	-4.00%	3.48%	Sag	40.00'	11.51
7	5+00.00'	1096.75'	-4.00%	0.50%	4.50%	Sag	50.00'	11.111
8	6+50.00'	1097.50'	0.50%	1.00%	0.50%	Sag	50.00'	99.793
9	7+00.00'	1098.00'	1.00%	3.50%	2.50%	Sag	50.00'	20.011
10	8+50.00'	1103.25'	3.50%	0.00%	3.50%	Crest	75.00'	21.431
11	12+00.00'	1103.25'	0.00%	2.66%	2.66%	Sag	50.00'	18.832
12	12+34.65'	1104.17'	2.66%					

LEGEND

EXISTING/PROPOSED

- MANHOLE
- INTAKE
- HYDRANT
- VALVE
- OUTLET POST
- PP/LP — POWER POLE/ LIGHT POLE

SEE SHEET #47 FOR CONTINUATION



CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILING
502 E. 9TH ST., DES MOINES, IA 50319-0034

PAVING PLAN-ENTRANCE ROAD

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

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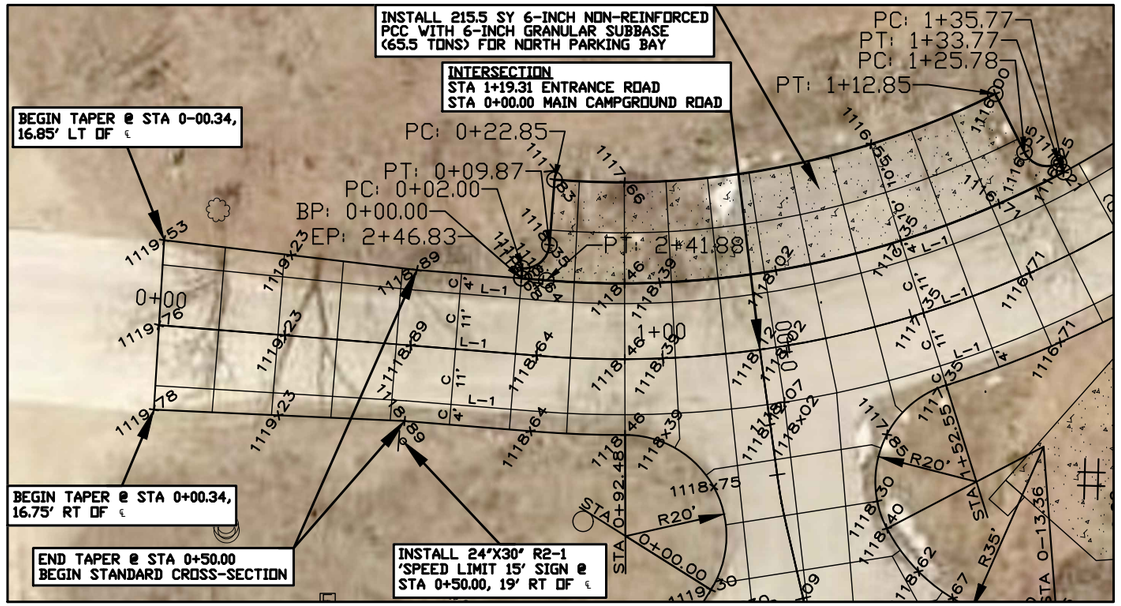
CHK'D BY: | DATE: 5/01/2021

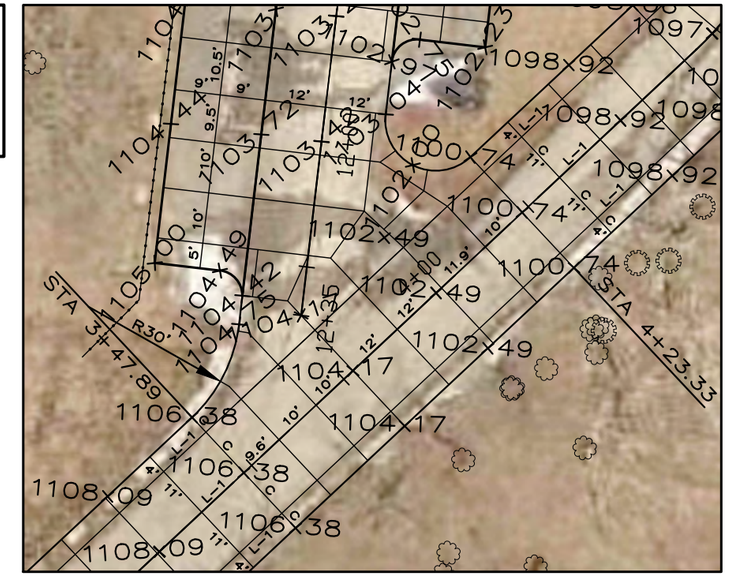
SHEET No: 48



SEE SHEETS #54-59 FOR MAIN CAMPGROUND ROAD CONTINUATION

SEE SHEETS #67-69 FOR SIGNAGE DETAILS

0 30
FEET



INTERSECTION WITH MAIN PARKING LOOP

NORTH PARKING AREA PAVEMENT EDGE CONTROL ALIGNMENT

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	2.00'		N4° 25' 03"E	0+00.00'	0+02.00'				(5545681.0296',3834206.7435',1118.68')	(5545681.1836',3834208.7376',1118.64')	
2	Curve	7.87'	5.00'		0+02.00'	0+09.87'	90.1761 (d)	7.08'	N49° 30' 22"E	(5545681.1836',3834208.7376',1118.64')	(5545686.5693',3834213.3364',1118.35')	(5545681.5841',3834213.7215')
3	Line	12.98'		N4° 25' 05"E	0+09.87'	0+22.85'				(5545686.5693',3834213.3364',1118.35')	(5545687.5695',3834226.2825',1117.83')	
4	Curve	90.00'	165.00'		0+22.85'	1+12.85'	31.2509 (d)	88.88'	N78° 59' 05"E	(5545687.5695',3834226.2825',1117.83')	(5545774.8168',3834243.2656',1116.00')	(5545700.8318',3834390.7486')
5	Line	12.93'		S26° 38' 26"E	1+12.85'	1+25.78'				(5545774.8168',3834243.2656',1116.00')	(5545780.6144',3834231.7086',1116.35')	
6	Curve	7.99'	5.00'		1+25.78'	1+33.77'	91.6096 (d)	7.17'	S72° 26' 44"E	(5545780.6144',3834231.7086',1116.35')	(5545787.4502',3834229.5461',1116.25')	(5545785.0836',3834233.9505')
7	Line	2.00'		S28° 15' 01"E	1+33.77'	1+35.77'				(5545787.4502',3834229.5461',1116.25')	(5545788.3969',3834227.7843',1116.21')	
8	Curve	106.10'	185.00'		1+35.77'	2+41.88'	32.8606 (d)	104.65'	S78° 10' 48"W	(5545788.3969',3834227.7843',1116.21')	(5545685.9620',3834206.3472',1118.63')	(5545700.8318',3834390.7485')
9	Line	4.95'		N85° 24' 21"W	2+41.88'	2+46.83'				(5545685.9620',3834206.3472',1118.63')	(5545681.0296',3834206.7435',1118.68')	

ENTRANCE ROAD CENTERLINE CONTROL

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	75.73'		S85° 23' 23"E	0+00.00'	0+75.73'				(5545609.2741',3834197.4825',1119.76')	(5545684.7563',3834191.3957',1118.63')	
2	Curve	166.49'	200.00'		0+75.73'	2+42.21'	47.6950 (d)	161.72'	N70° 45' 46"E	(5545684.7563',3834191.3957',1118.63')	(5545837.4478',3834244.6798',1113.65')	(5545700.8318',3834390.7486')
3	Line	228.31'		N46° 54' 55"E	2+42.21'	4+70.53'				(5545837.4478',3834244.6798',1113.65')	(5546004.1938',3834400.6349',1097.93')	
4	Curve	42.84'	61.00'		4+70.53'	5+13.36'	40.2358 (d)	41.96'	N26° 47' 50"E	(5546004.1938',3834400.6349',1097.93')	(5546023.1119',3834438.0907',1096.88')	(5545962.5259',3834445.1858')
5	Line	248.53'		N6° 40' 46"E	5+13.36'	7+61.89'				(5546023.1119',3834438.0907',1096.88')	(5546052.0192',3834684.9317',1100.17')	
6	Curve	52.17'	33.00'		7+61.89'	8+14.06'	90.5787 (d)	46.90'	N38° 36' 36"W	(5546052.0192',3834684.9317',1100.17')	(5546022.7503',3834721.5831')	(5546019.2432',3834688.7700')
7	Line	20.00'		N83° 53' 57"W	8+14.06'	8+34.06'				(5546022.7503',3834721.5831')	(5546002.8626',3834723.7088')	
8	Curve	51.50'	33.00'		8+34.06'	8+85.56'	89.4213 (d)	46.43'	S51° 23' 24"W	(5546002.8626',3834723.7088')	(5545966.5794',3834694.7340',1103.25')	(5545999.3554',3834690.8957')
9	Line	349.09'		S6° 40' 46"W	8+85.56'	12+34.65'				(5545966.5794',3834694.7340',1103.25')	(5545925.9757',3834348.0170',1104.17')	

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

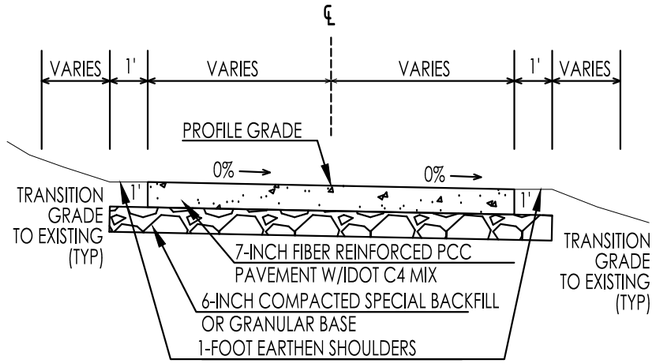
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

ENTRANCE ROAD INTERSECTIONS

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

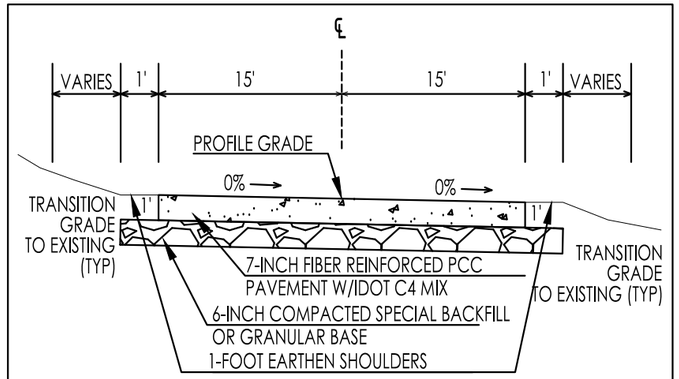
NO.	BY	DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 49



STA 0+00.00 TO STA 0+50.00
MAIN ENTRANCE PAVEMENT CROSS-SECTION

NO SCALE



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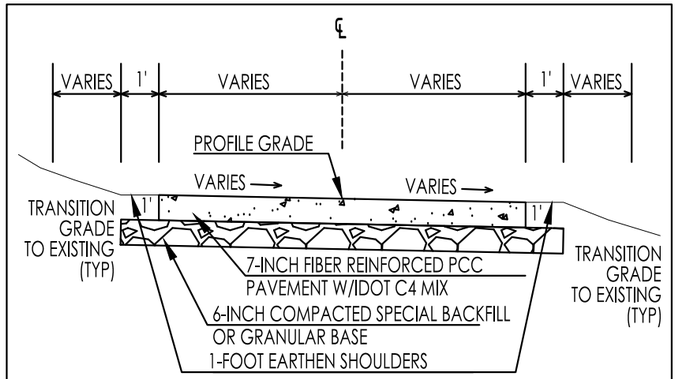
MAIN ENTRANCE PAVEMENT CROSS-SECTION

NO SCALE



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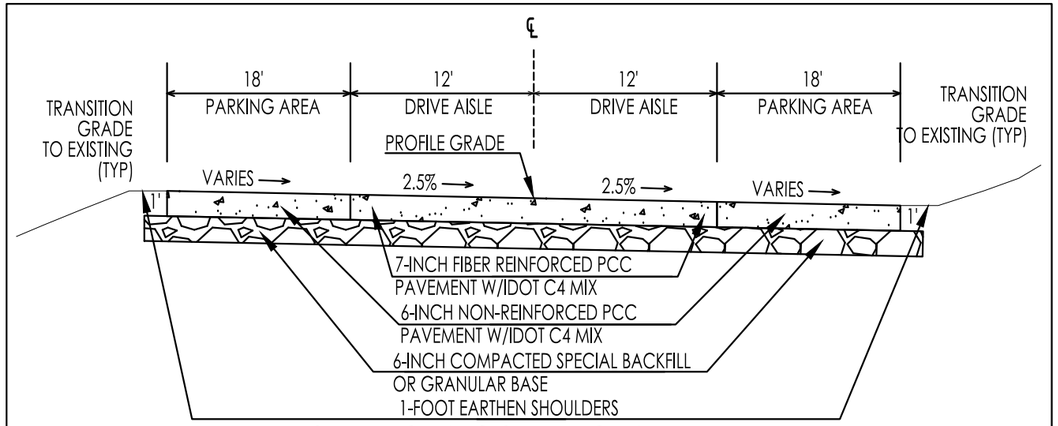

STA 5+19.54 TO STA 7+59.54
MAIN ENTRANCE PAVEMENT CROSS-SECTION

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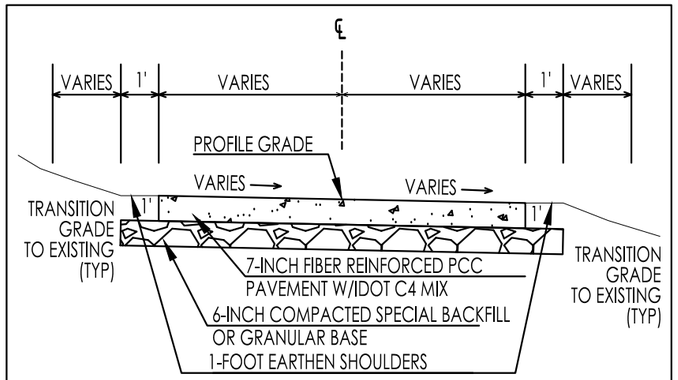

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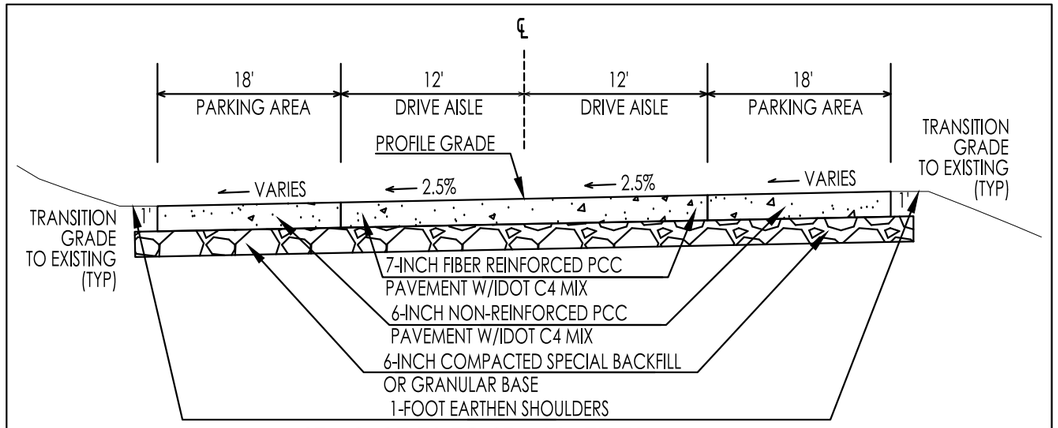

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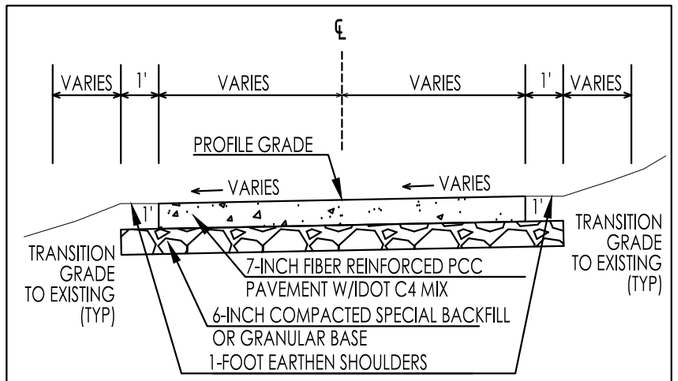
NO SCALE



STA 11+77.71 TO STA 12+34.65
MAIN ENTRANCE PAVEMENT CROSS-SECTION

NO SCALE

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

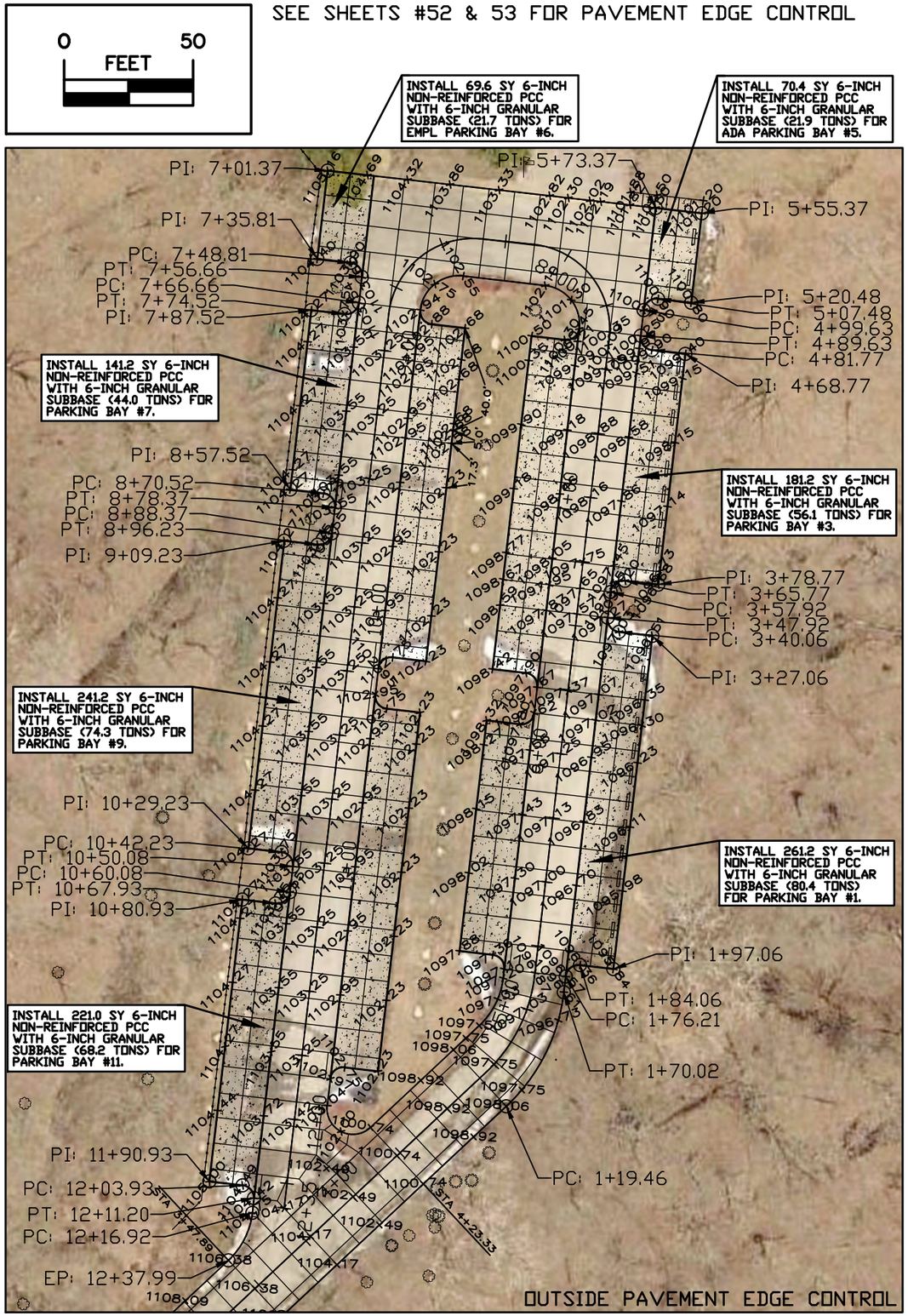
ENTRANCE ROAD X-SECTIONS

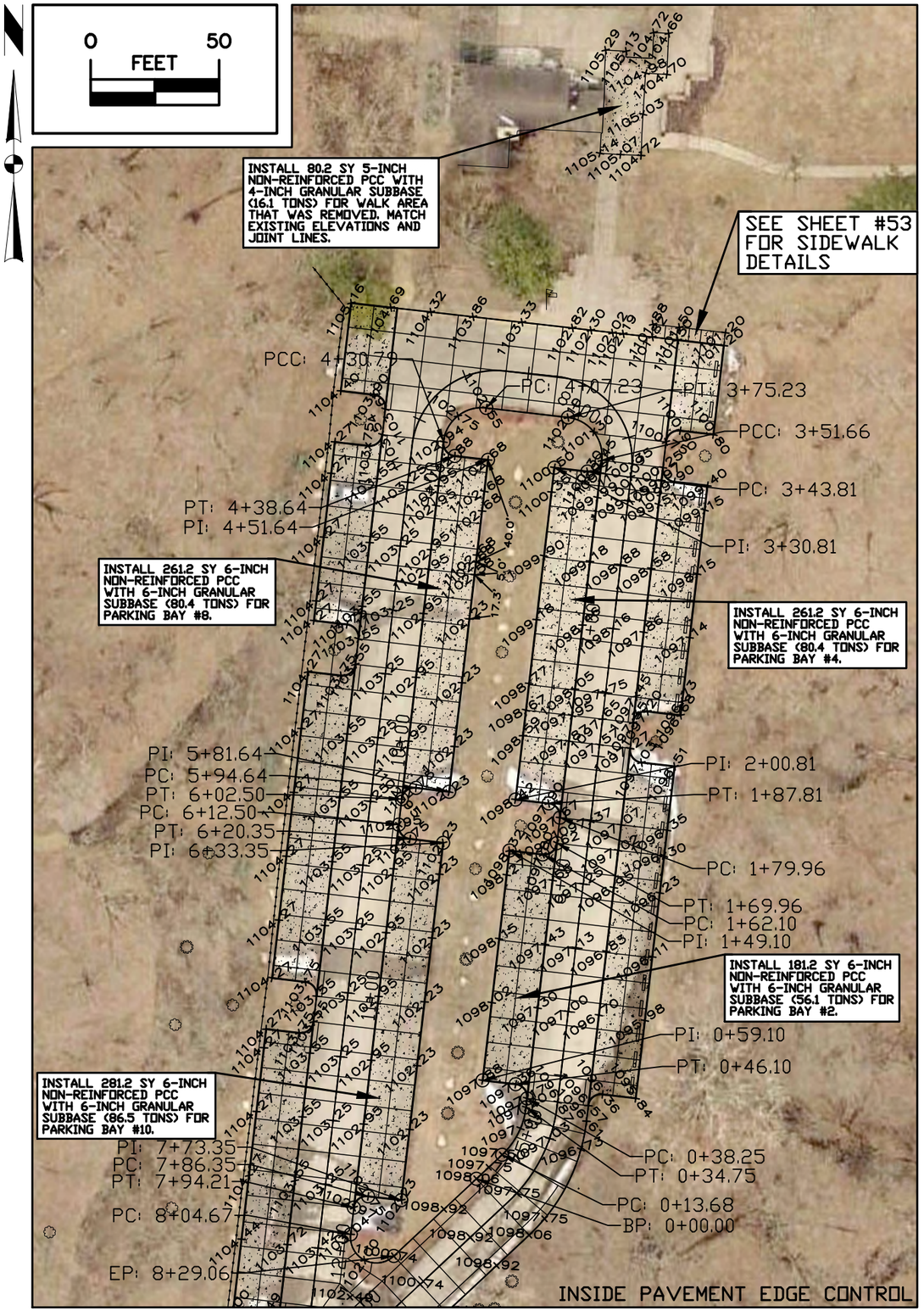
CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 50

SEE SHEETS #52 & 53 FOR PAVEMENT EDGE CONTROL





CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

PAVING-PARKING EDGE CONTROL

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY: DATE	REVISION

DRAWN BY:

CHK'D BY:

PROJECT NUMBER: 21-03-22-01

DATE: 5/01/2021

SHEET No: 51

OUTSIDE PAVEMENT EDGE CONTROL ALIGNMENT MAIN PARKING AREA

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord	Chord Direction	Start Point	End Point	Center Point
1	Line	119.46'		N46° 54' 55"E	0+00.00'	1+19.46'				(5545924.8740',3834305.9103',1106.38')	(5546012.1180',3834387.5080',1098.06')	
2	Curve	50.56'	72.00'		1+19.46'	1+70.02'	40.2358 (d)	49.53'	N26° 47' 50"E	(5546012.1180',3834387.5080',1098.06')	(5546034.4476',3834431.7182',1096.61')	(5545962.9363',3834440.0928')
3	Line	6.19'		N6° 40' 46"E	1+70.02'	1+76.21'				(5546034.4476',3834431.7182',1096.61')	(5546035.1679',3834437.8687',1096.57')	
4	Curve	7.85'	5.00'		1+76.21'	1+84.06'	90.0000 (d)	7.07'	N51° 40' 46"E	(5546035.1679',3834437.8687',1096.57')	(5546040.7155',3834442.2532',1096.36')	(5546040.1340',3834437.2871')
5	Line	13.00'		S83° 19' 14"E	1+84.06'	1+97.06'				(5546040.7155',3834442.2532',1096.36')	(5546053.6273',3834440.7411',1095.84')	
6	Line	130.00'		N6° 40' 46"E	1+97.06'	3+27.06'				(5546053.6273',3834440.7411',1095.84')	(5546068.7481',3834569.8587',1096.51')	
7	Line	13.00'		N83° 19' 14"W	3+27.06'	3+40.06'				(5546068.7481',3834569.8587',1096.51')	(5546055.8363',3834571.3708',1097.03')	
8	Curve	7.85'	5.00'		3+40.06'	3+47.92'	90.0000 (d)	7.07'	N38° 19' 12"W	(5546055.8363',3834571.3708',1097.03')	(5546051.4519',3834576.9185',1097.27')	(5546056.4179',3834576.3369')
9	Line	10.00'		N6° 40' 46"E	3+47.92'	3+57.92'				(5546051.4519',3834576.9185',1097.27')	(5546052.6150',3834586.8506',1097.35')	
10	Curve	7.85'	5.00'		3+57.92'	3+65.77'	89.9995 (d)	7.07'	N51° 40' 45"E	(5546052.6150',3834586.8506',1097.35')	(5546058.1626',3834591.2351',1097.20')	(5546057.5811',3834586.2690')
11	Line	13.00'		S83° 19' 14"E	3+65.77'	3+78.77'				(5546058.1626',3834591.2351',1097.20')	(5546071.0744',3834589.7230',1096.68')	
12	Line	90.00'		N6° 40' 46"E	3+78.77'	4+68.77'				(5546071.0744',3834589.7230',1096.68')	(5546081.5427',3834679.1121',1099.40')	
13	Line	13.00'		N83° 19' 14"W	4+68.77'	4+81.77'				(5546081.5427',3834679.1121',1099.40')	(5546068.6310',3834680.6242',1099.90')	
14	Curve	7.85'	5.00'		4+81.77'	4+89.63'	90.0004 (d)	7.07'	N38° 19' 15"W	(5546068.6310',3834680.6242',1099.90')	(5546064.2464',3834686.1718',1100.25')	(5546069.2125',3834685.5903')
15	Line	10.00'		N6° 40' 46"E	4+89.63'	4+99.63'				(5546064.2464',3834686.1718',1100.25')	(5546065.4096',3834696.1040',1100.75')	
16	Curve	7.85'	5.00'		4+99.63'	5+07.48'	90.0000 (d)	7.07'	N51° 40' 46"E	(5546065.4096',3834696.1040',1100.75')	(5546070.9572',3834700.4885',1100.90')	(5546070.3756',3834695.5224')
17	Line	13.00'		S83° 19' 14"E	5+07.48'	5+20.48'				(5546070.9572',3834700.4885',1100.90')	(5546083.8690',3834698.9764',1100.80')	
18	Line	34.89'		N6° 40' 46"E	5+20.48'	5+55.37'				(5546083.8690',3834698.9764',1100.80')	(5546087.9273',3834733.6307',1101.20')	
19	Line	18.00'		N83° 19' 14"W	5+55.37'	5+73.37'				(5546087.9273',3834733.6307',1101.20')	(5546070.0495',3834735.7244',1101.50')	
20	Line	128.00'		N83° 31' 25"W	5+73.37'	7+01.37'				(5546070.0495',3834735.7244',1101.50')	(5545942.8660',3834750.1620',1105.16')	
21	Line	34.44'		S6° 40' 48"W	7+01.37'	7+35.81'				(5545942.8660',3834750.1620',1105.16')	(5545938.8600',3834715.9582',1104.40')	
22	Line	13.00'		S83° 19' 14"E	7+35.81'	7+48.81'				(5545938.8600',3834715.9582',1104.40')	(5545951.7718',3834714.4461',1103.90')	
23	Curve	7.85'	5.00'		7+48.81'	7+56.66'	89.9994 (d)	7.07'	S38° 19' 13"E	(5545951.7718',3834714.4461',1103.90')	(5545956.1562',3834708.8985',1103.65')	(5545951.1901',3834709.4801')
24	Line	10.00'		S6° 40' 46"W	7+56.66'	7+66.66'				(5545956.1562',3834708.8985',1103.65')	(5545954.9931',3834698.9664',1103.54')	
25	Curve	7.85'	5.00'		7+66.66'	7+74.52'	90.0000 (d)	7.07'	S51° 40' 46"W	(5545954.9931',3834698.9664',1103.54')	(5545949.4454',3834694.5819',1103.75')	(5545950.0270',3834699.5480')
26	Line	13.00'		N83° 19' 14"W	7+74.52'	7+87.52'				(5545949.4454',3834694.5819',1103.75')	(5545936.5337',3834696.0940',1104.27')	
27	Line	70.00'		S6° 40' 46"W	7+87.52'	8+57.52'				(5545936.5337',3834696.0940',1104.27')	(5545928.3917',3834626.5691',1104.27')	
28	Line	13.00'		S83° 19' 14"E	8+57.52'	8+70.52'				(5545928.3917',3834626.5691',1104.27')	(5545941.3034',3834625.0570',1103.75')	
29	Curve	7.85'	5.00'		8+70.52'	8+78.37'	90.0000 (d)	7.07'	S38° 19' 14"E	(5545941.3034',3834625.0570',1103.75')	(5545945.6879',3834619.5094',1103.55')	(5545940.7219',3834620.0910')
30	Line	10.00'		S6° 40' 46"W	8+78.37'	8+88.37'				(5545945.6879',3834619.5094',1103.55')	(5545944.5248',3834609.5773',1103.55')	
31	Curve	7.85'	5.00'		8+88.37'	8+96.23'	90.0000 (d)	7.07'	S51° 40' 46"W	(5545944.5248',3834609.5773',1103.55')	(5545938.9772',3834605.1928',1103.75')	(5545939.5587',3834610.1588')
32	Line	13.00'		N83° 19' 14"W	8+96.23'	9+09.23'				(5545938.9772',3834605.1928',1103.75')	(5545926.0654',3834606.7049',1104.27')	
33	Line	120.00'		S6° 40' 46"W	9+09.23'	10+29.23'				(5545926.0654',3834606.7049',1104.27')	(5545912.1077',3834487.5194',1104.27')	
34	Line	13.00'		S83° 19' 14"E	10+29.23'	10+42.23'				(5545912.1077',3834487.5194',1104.27')	(5545925.0195',3834486.0073',1103.75')	
35	Curve	7.85'	5.00'		10+42.23'	10+50.08'	90.0006 (d)	7.07'	S38° 19' 13"E	(5545925.0195',3834486.0073',1103.75')	(5545929.4039',3834480.4596',1103.55')	(5545924.4379',3834481.0412')
36	Line	10.00'		S6° 40' 46"W	10+50.08'	10+60.08'				(5545929.4039',3834480.4596',1103.55')	(5545928.2408',3834470.5274',1103.55')	
37	Curve	7.85'	5.00'		10+60.08'	10+67.93'	89.9989 (d)	7.07'	S51° 40' 48"W	(5545928.2408',3834470.5274',1103.55')	(5545922.6932',3834466.1430',1103.75')	(5545923.2747',3834471.1091')
38	Line	13.00'		N83° 19' 14"W	10+67.93'	10+80.93'				(5545922.6932',3834466.1430',1103.75')	(5545909.7814',3834467.6551',1104.27')	
39	Line	110.00'		S6° 40' 46"W	10+80.93'	11+90.93'				(5545909.7814',3834467.6551',1104.27')	(5545896.9869',3834358.4017',1105.00')	
40	Line	13.00'		S83° 19' 14"E	11+90.93'	12+03.93'				(5545896.9869',3834358.4017',1105.00')	(5545909.8986',3834356.8897',1104.49')	
41	Curve	7.27'	5.00'		12+03.93'	12+11.20'	83.3206 (d)	6.65'	S41° 39' 37"E	(5545909.8986',3834356.8897',1104.49')	(5545914.3170',3834351.9236',1104.42')	(5545909.3170',3834351.9236')
42	Line	5.72'		S6° 20' 22"W	12+11.20'	12+16.92'				(5545914.3170',3834351.9236',1104.42')	(5545913.6858',3834346.2414',1104.75')	
43	Curve	21.07'	30.00'		12+16.92'	12+37.99'	40.2358 (d)	20.64'	S26° 47' 50"W	(5545913.6858',3834346.2414',1104.75')	(5545904.3818',3834327.8205',1106.38')	(5545883.8894',3834349.7308')

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

PAVING-PARKING EDGE CONTROL

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:

PROJECT NUMBER: 21-03-22-01

CHK'D BY:

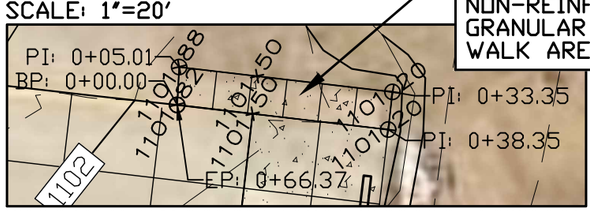
DATE: 5/01/2021

SHEET No: 52

INSIDE PAVEMENT EDGE CONTROL ALIGNMENT MAIN PARKING AREA

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord	Chord Direction	Start Point	End Point	Center Point
1	Line	13.68'		N46° 54' 55"E	0+00.00'	0+13.68'				(5545991.6257',3834409.4183',1098.06')	(5546001.6200',3834418.7659',1097.50')	
2	Curve	21.07'	30.00'		0+13.68'	0+34.75'	40.2358 (d)	20.64'	N26° 47' 50"E	(5546001.6200',3834418.7659',1097.50')	(5546010.9240',3834437.1868',1097.20')	(5545981.1277',3834440.6763')
3	Line	3.50'		N6° 40' 46"E	0+34.75'	0+38.25'				(5546010.9240',3834437.1868',1097.20')	(5546011.3308',3834440.6603',1097.17')	
4	Curve	7.85'	5.00'		0+38.25'	0+46.10'	90.0006 (d)	7.07'	N38° 19' 15"W	(5546011.3308',3834440.6603',1097.17')	(5546006.9463',3834446.2079',1097.36')	(5546006.3647',3834441.2418')
5	Line	13.00'		N83° 19' 14"W	0+46.10'	0+59.10'				(5546006.9463',3834446.2079',1097.36')	(5545994.0345',3834447.7200',1097.88')	
6	Line	90.00'		N6° 40' 46"E	0+59.10'	1+49.10'				(5545994.0345',3834447.7200',1097.88')	(5546004.5028',3834537.1091',1098.32')	
7	Line	13.00'		S83° 19' 14"E	1+49.10'	1+62.10'				(5546004.5028',3834537.1091',1098.32')	(5546017.4146',3834535.5970',1097.80')	
8	Curve	7.85'	5.00'		1+62.10'	1+69.96'	89.9991 (d)	7.07'	N51° 40' 48"E	(5546017.4146',3834535.5970',1097.80')	(5546022.9622',3834539.9814',1097.62')	(5546017.9961',3834540.5631')
9	Line	10.00'		N6° 40' 46"E	1+69.96'	1+79.96'				(5546022.9622',3834539.9814',1097.62')	(5546024.1254',3834549.9137',1097.67')	
10	Curve	7.85'	5.00'		1+79.96'	1+87.81'	89.9996 (d)	7.07'	N38° 19' 17"W	(5546024.1254',3834549.9137',1097.67')	(5546019.7408',3834555.4613',1097.90')	(5546019.1593',3834550.4952')
11	Line	13.00'		N83° 19' 14"W	1+87.81'	2+00.81'				(5546019.7408',3834555.4613',1097.90')	(5546006.8291',3834556.9733',1098.42')	
12	Line	130.00'		N6° 40' 46"E	2+00.81'	3+30.81'				(5546006.8291',3834556.9733',1098.42')	(5546021.9499',3834686.0910',1100.50')	
13	Line	13.00'		S83° 19' 14"E	3+30.81'	3+43.81'				(5546021.9499',3834686.0910',1100.50')	(5546034.8617',3834684.5789',1100.30')	
14	Curve	7.85'	5.00'		3+43.81'	3+51.66'	90.0000 (d)	7.07'	N51° 40' 46"E	(5546034.8617',3834684.5789',1100.30')	(5546040.4093',3834688.9634',1100.45')	(5546035.4433',3834689.5449')
15	Curve	23.56'	15.00'		3+51.66'	3+75.23'	90.0003 (d)	21.21'	N38° 19' 15"W	(5546040.4093',3834688.9634',1100.45')	(5546027.2558',3834705.6063',1102.10')	(5546025.5111',3834690.7081')
16	Line	32.00'		N83° 19' 14"W	3+75.23'	4+07.23'				(5546027.2558',3834705.6063',1102.10')	(5545995.4731',3834709.3283',1102.55')	
17	Curve	23.56'	15.00'		4+07.23'	4+30.79'	90.0000 (d)	21.21'	S51° 40' 46"W	(5545995.4731',3834709.3283',1102.55')	(5545978.8302',3834696.1749',1102.94')	(5545993.7283',3834694.4301')
18	Curve	7.85'	5.00'		4+30.79'	4+38.64'	90.0000 (d)	7.07'	S38° 19' 14"E	(5545978.8302',3834696.1749',1102.94')	(5545983.2147',3834690.6272',1102.88')	(5545983.7962',3834695.5933')
19	Line	13.00'		S83° 19' 14"E	4+38.64'	4+51.64'				(5545983.2147',3834690.6272',1102.88')	(5545996.1264',3834689.1151',1102.68')	
20	Line	130.00'		S6° 40' 46"W	4+51.64'	5+81.64'				(5545996.1264',3834689.1151',1102.68')	(5545981.0056',3834559.9975',1102.23')	
21	Line	13.00'		N83° 19' 14"W	5+81.64'	5+94.64'				(5545981.0056',3834559.9975',1102.23')	(5545968.0938',3834561.5096',1102.75')	
22	Curve	7.85'	5.00'		5+94.64'	6+02.50'	90.0000 (d)	7.07'	S51° 40' 46"W	(5545968.0938',3834561.5096',1102.75')	(5545962.5462',3834557.1251',1102.95')	(5545967.5122',3834556.5435')
23	Line	10.00'		S6° 40' 46"W	6+02.50'	6+12.50'				(5545962.5462',3834557.1251',1102.95')	(5545961.3830',3834547.1930',1102.95')	
24	Curve	7.85'	5.00'		6+12.50'	6+20.35'	90.0010 (d)	7.07'	S38° 19' 16"E	(5545961.3830',3834547.1930',1102.95')	(5545965.7676',3834541.6453',1102.75')	(5545966.3491',3834546.6114')
25	Line	13.00'		S83° 19' 14"E	6+20.35'	6+33.35'				(5545965.7676',3834541.6453',1102.75')	(5545978.6793',3834540.1333',1102.23')	
26	Line	140.00'		S6° 40' 46"W	6+33.35'	7+73.35'				(5545978.6793',3834540.1333',1102.23')	(5545962.3953',3834401.0835',1102.23')	
27	Line	13.00'		N83° 19' 14"W	7+73.35'	7+86.35'				(5545962.3953',3834401.0835',1102.23')	(5545949.4835',3834402.5956',1102.75')	
28	Curve	7.85'	5.00'		7+86.35'	7+94.21'	90.0046 (d)	7.07'	S51° 40' 38"W	(5545949.4835',3834402.5956',1102.75')	(5545943.9359',3834398.2107',1102.97')	(5545948.9020',3834397.6295')
29	Line	10.46'		S6° 40' 46"W	7+94.21'	8+04.67'				(5545943.9359',3834398.2107',1102.97')	(5545942.7192',3834387.8216',1103.04')	
30	Curve	24.39'	10.00'		8+04.67'	8+29.06'	139.7642 (d)	18.78'	S63° 12' 10"E	(5545942.7192',3834387.8216',1103.04')	(5545959.4821',3834379.3550',1100.74')	(5545952.6513',3834386.6584')

SCALE: 1"=20'



SIDEWALK PAVEMENT EDGE CONTROL VISITOR AREA

SIDEWALK PAVEMENT EDGE CONTROL ALIGNMENT VISITOR AREA

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	5.01'	N2° 59' 56"E	0+00.00'	0+05.01'	(5546060.1009',3834736.8894',1101.82')	(5546060.3631',3834741.8929',1101.88')
2	Line	28.34'	S83° 19' 14"E	0+05.01'	0+33.35'	(5546060.3631',3834741.8929',1101.88')	(5546088.5089',3834738.5968',1101.20')
3	Line	5.00'	S6° 40' 46"W	0+33.35'	0+38.35'	(5546088.5089',3834738.5968',1101.20')	(5546087.9273',3834733.6307',1101.20')
4	Line	28.02'	N83° 19' 14"W	0+38.35'	0+66.37'	(5546087.9273',3834733.6307',1101.20')	(5546060.1009',3834736.8894',1101.82')

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

PAVING-PARKING EDGE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
CHK'D BY:
PROJECT NUMBER: 21-03-22-01
DATE: 5/01/2021
SHEET No: 53

SEE SHEETS #47-53 FOR ENTRANCE ROAD INFORMATION

0 50
FEET

LEGEND
EXISTING/PROPOSED

- MANHOLE
- INTAKE
- HYDRANT
- VALVE
- OUTLET POST
- PP/LP — POWER POLE/ LIGHT POLE

INSTALL 24"X30" R2-1 'SPEED LIMIT 15' SIGN @ STA 1+45.00, 15' RT OF ℄

BEGIN STANDARD CROSS-SECTION @ STA 2+85.26

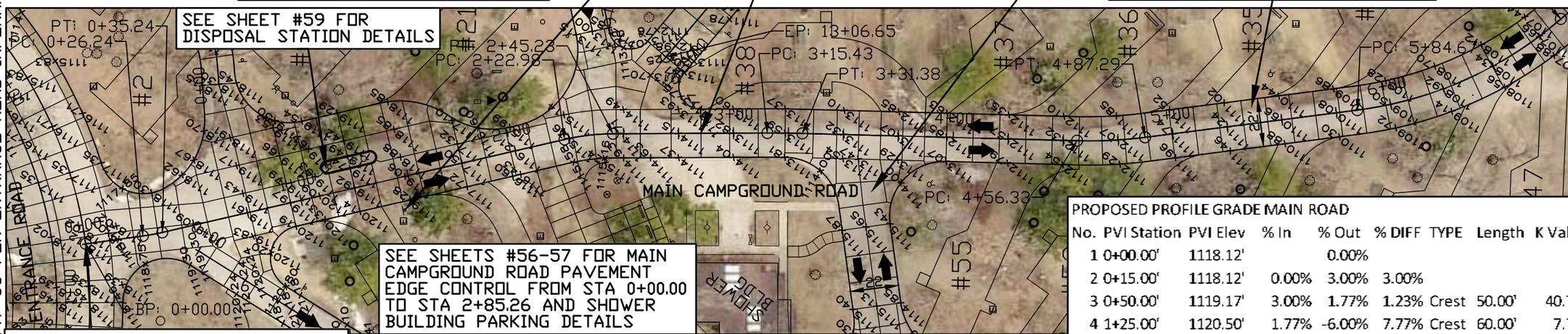
SEE SHEET #59 FOR MAIN CAMPGROUND ROAD CROSS-SECTION DETAILS

SEE SHEETS #67-69 FOR SIGNAGE DETAILS

SEE SHEET #58 FOR MAIN CAMPGROUND ROAD CENTERLINE CONTROL & INTERSECTION DETAILS

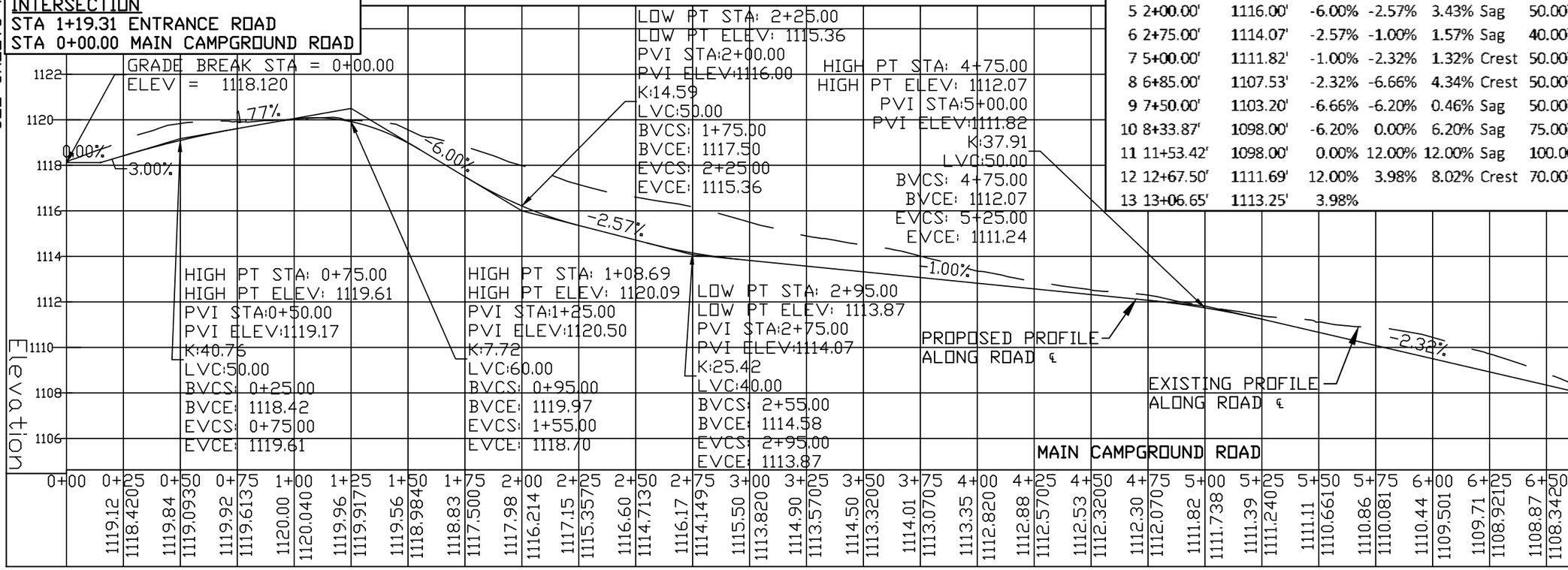
INSTALL 10,747.3 SY 7-INCH FIBER-REINFORCED PCC PAVEMENT W/6-INCH SPECIAL BACKFILL SUBBASE (3,543.3 TONS)

SEE SHEET #55 FOR CONTINUATION



PROPOSED PROFILE GRADE MAIN ROAD

No.	PVI Station	PVI Elev	% In	% Out	% DIFF	TYPE	Length	K Value
1	0+00.00'	1118.12'		0.00%				
2	0+15.00'	1118.12'	0.00%	3.00%	3.00%			
3	0+50.00'	1119.17'	3.00%	1.77%	1.23%	Crest	50.00'	40.761
4	1+25.00'	1120.50'	1.77%	-6.00%	7.77%	Crest	60.00'	7.719
5	2+00.00'	1116.00'	-6.00%	-2.57%	3.43%	Sag	50.00'	14.591
6	2+75.00'	1114.07'	-2.57%	-1.00%	1.57%	Sag	40.00'	25.424
7	5+00.00'	1111.82'	-1.00%	-2.32%	1.32%	Crest	50.00'	37.91
8	6+85.00'	1107.53'	-2.32%	-6.66%	4.34%	Crest	50.00'	11.514
9	7+50.00'	1103.20'	-6.66%	-6.20%	0.46%	Sag	50.00'	108.33
10	8+33.87'	1098.00'	-6.20%	0.00%	6.20%	Sag	75.00'	12.097
11	11+53.42'	1098.00'	0.00%	12.00%	12.00%	Sag	100.00'	8.333
12	12+67.50'	1111.69'	12.00%	3.98%	8.02%	Crest	70.00'	8.733
13	13+06.65'	1113.25'	3.98%					



SEE SHEET #55 FOR CONTINUATION

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

PAVING PLAN-MAIN CAMP ROAD

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

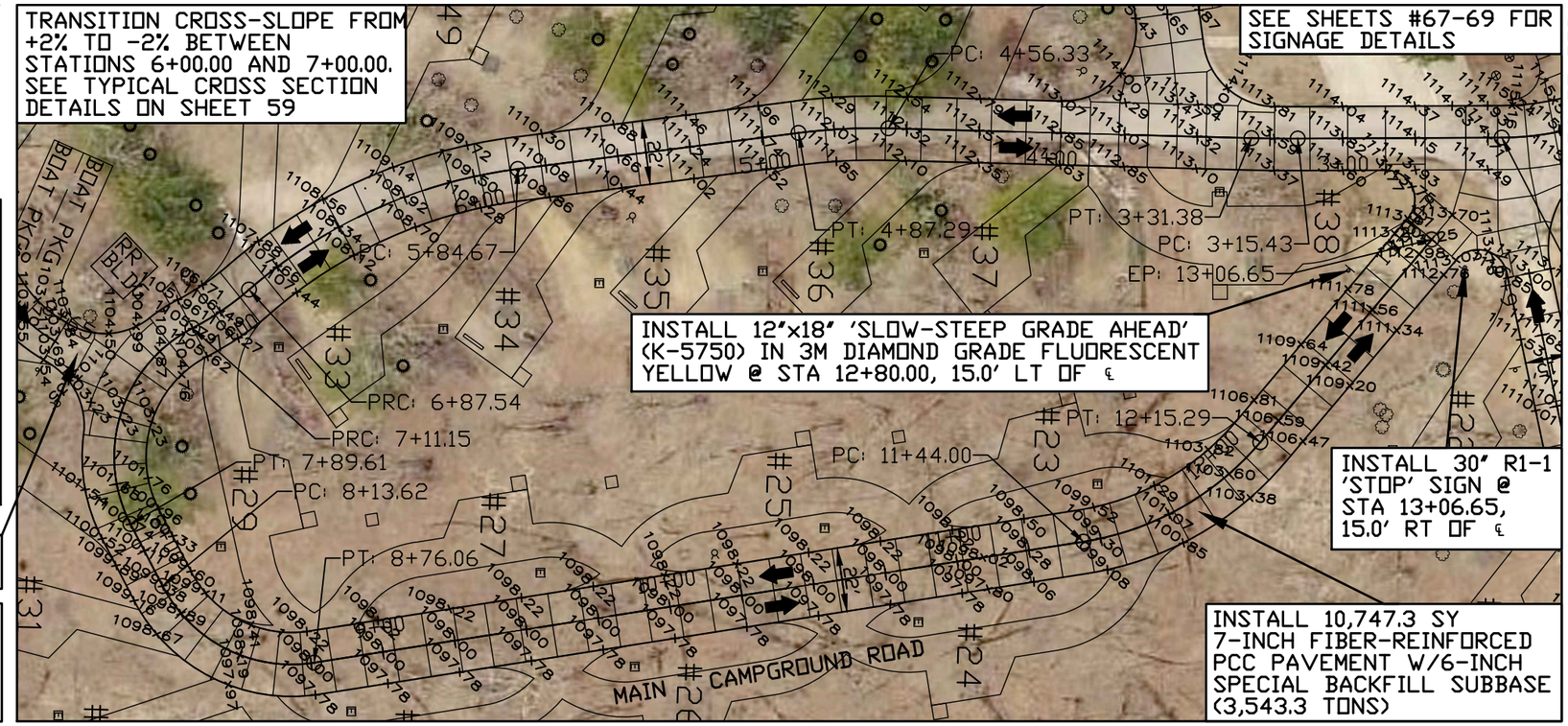
NO.	BY DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 54

0 50
FEET

LEGEND
EXISTING/PROPOSED

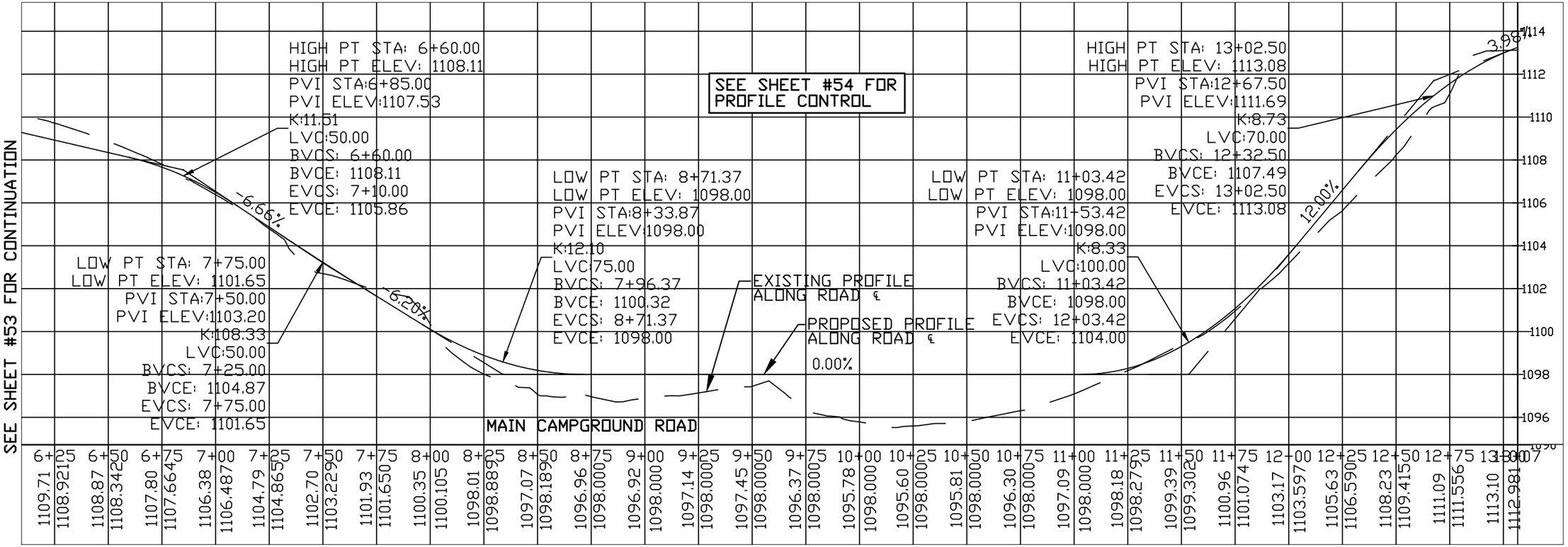
- MANHOLE
- INTAKE
- HYDRANT
- VALVE
- OUTLET POST
- POWER POLE/ LIGHT POLE



SEE SHEET #58 FOR INTERSECTION DETAILS

SEE SHEET #58 FOR MAIN CAMPGROUND ROAD CENTERLINE CONTROL & SHEET #59 FOR CAMPGROUND ROAD CROSS-SECTION DETAILS

SEE SHEET #53 FOR CONTINUATION



CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

PAVING PLAN-MAIN CAMP ROAD

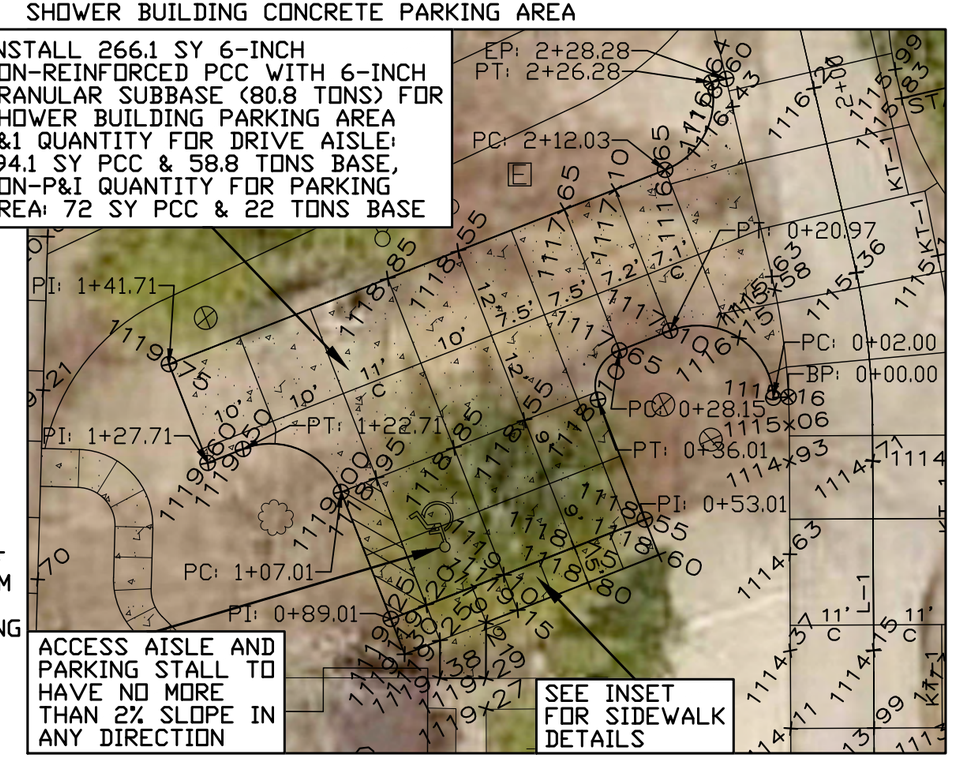
CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 55

MAIN CAMPGROUND ROAD PAVEMENT EDGE CONTROL FROM STA 0+15.00 TO STA 2+85.26

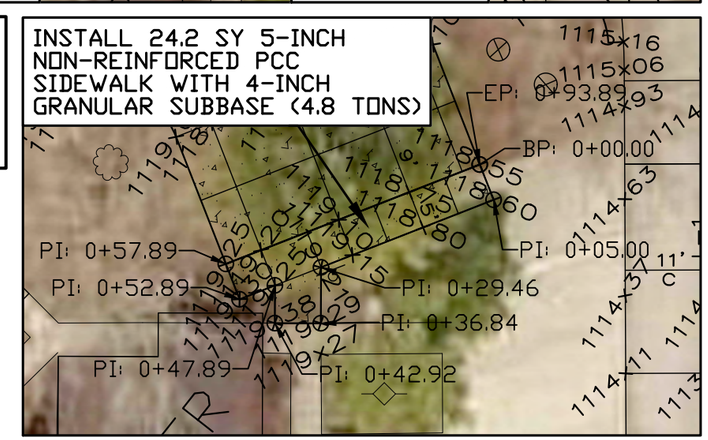
SHOWER BUILDING CONCRETE PARKING AREA



0 30
FEET

NOTES:
1. SEE SHEET #57 FOR PAVEMENT EDGE CONTROL OF MAIN CAMPGROUND ROAD FROM STATION 0+15.00 TO STATION 2+85.26 AND SHOWER PARKING AREA.
2. SEE SHEET #59 FOR DISPOSAL STATION ISLAND INFORMATION.

0 20
FEET



SHOWER BUILDING CONCRETE PARKING AREA SIDEWALK

SIDEWALK PAVEMENT EDGE CONTROL ALIGNMENT FOR THE SHOWER BUILDING PARKING AREA

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	5.00'	S21° 22' 30"E	0+00.00'	0+05.00'	(5545748.3211',3833940.3231',1118.55')	(5545750.1435',3833935.6670',1118.60')
2	Line	24.46'	S68° 37' 30"W	0+05.00'	0+29.46'	(5545750.1435',3833935.6670',1118.60')	(5545727.3627',3833926.7508',1119.21')
3	Line	7.37'	S0° 11' 46"W	0+29.46'	0+36.84'	(5545727.3627',3833926.7508',1119.21')	(5545727.3374',3833919.3764',1119.29')
4	Line	6.08'	N89° 48' 14"W	0+36.84'	0+42.92'	(5545727.3374',3833919.3764',1119.29')	(5545721.2588',3833919.3972',1119.38')
5	Line	4.97'	N0° 11' 46"E	0+42.92'	0+47.89'	(5545721.2588',3833919.3972',1119.38')	(5545721.2758',3833924.3684',1119.25')
6	Line	5.00'	S68° 37' 30"W	0+47.89'	0+52.89'	(5545721.2758',3833924.3684',1119.25')	(5545716.6198',3833922.5461',1119.30')
7	Line	5.00'	N21° 22' 30"W	0+52.89'	0+57.89'	(5545716.6198',3833922.5461',1119.30')	(5545714.7974',3833927.2021',1119.25')
8	Line	36.00'	N68° 37' 30"E	0+57.89'	0+93.89'	(5545714.7974',3833927.2021',1119.25')	(5545748.3211',3833940.3231',1118.55')

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

MAIN CAMP ROAD EDGE CTL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 56

MAIN CAMPGROUND ROAD PAVEMENT EDGE CONTROL FROM STA 0+15.00 TO STA 2+85.26

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	34.97'	20.00'		0+00.00'	0+34.97'	100.1701 (d)	30.68'	S22° 31' 06"W	(5545765.1140',3834185.5833',1117.35')	(5545753.3643',3834157.2425',1118.40')	(5545771.0938',3834166.4982')
2	Curve	40.78'	35.00'		0+34.97'	0+75.75'	66.7602 (d)	38.51'	S60° 56' 49"E	(5545753.3643',3834157.2425',1118.40')	(5545787.0316',3834138.5397',1118.55')	(5545784.3909',3834173.4399')
3	Line	18.42'		N85° 40' 23"E	0+75.75'	0+94.17'				(5545787.0316',3834138.5397',1118.55')	(5545805.3991',3834139.9294',1117.98')	
4	Line	15.00'		S4° 19' 37"E	0+94.17'	1+09.17'				(5545805.3991',3834139.9294',1117.98')	(5545806.5309',3834124.9722',1118.28')	
5	Curve	43.07'	25.00'		1+09.17'	1+52.24'	98.7054 (d)	37.94'	S36° 19' 13"W	(5545806.5309',3834124.9722',1118.28')	(5545784.0610',3834094.4059',1119.54')	(5545808.4171',3834100.0435')
6	Line	36.61'		S13° 01' 57"E	1+52.24'	1+88.85'				(5545784.0610',3834094.4059',1119.54')	(5545792.3170',3834058.7373',1118.93')	
7	Curve	32.92'	40.00'		1+88.85'	2+21.77'	47.1564 (d)	32.00'	S10° 32' 45"W	(5545792.3170',3834058.7373',1118.93')	(5545786.4604',3834027.2778',1117.10')	(5545753.3473',3834049.7172')
8	Curve	28.81'	35.00'		2+21.77'	2+50.57'	47.1564 (d)	28.00'	S10° 32' 45"W	(5545786.4604',3834027.2778',1117.10')	(5545781.3358',3833999.7508',1115.99')	(5545815.4343',3834007.6434')
9	Line	3.91'		S13° 01' 57"E	2+50.57'	2+54.48'				(5545781.3358',3833999.7508',1115.99')	(5545782.2173',3833995.9425',1115.83')	
10	Curve	54.25'	35.00'		2+54.48'	3+08.74'	88.8137 (d)	48.98'	S57° 26' 21"E	(5545782.2173',3833995.9425',1115.83')	(5545823.5007',3833969.5805',1113.15')	(5545816.3158',3834003.8351')
11	Line	15.00'		S11° 50' 46"E	3+08.74'	3+23.74'				(5545823.5007',3833969.5805',1113.15')	(5545826.5800',3833954.9000',1112.85')	
12	Line	1.71'		S78° 09' 14"W	3+23.74'	3+25.45'				(5545826.5800',3833954.9000',1112.85')	(5545824.9033',3833954.5483',1112.90')	
13	Curve	22.33'	10.00'		3+25.45'	3+47.78'	127.9355 (d)	17.97'	S14° 11' 10"W	(5545824.9033',3833954.5483',1112.90')	(5545820.4991',3833937.1254',1113.03')	(5545826.9562',3833944.7613')
14	Line	22.00'		S40° 13' 06"W	3+47.78'	3+69.78'				(5545820.4991',3833937.1254',1113.03')	(5545806.2937',3833920.3264',1113.47')	
15	Line	0.35'		N49° 46' 54"W	3+69.78'	3+70.12'				(5545806.2937',3833920.3264',1113.47')	(5545806.0299',3833920.5495',1113.48')	
16	Curve	22.78'	10.00'		3+70.12'	3+92.90'	130.5032 (d)	18.16'	S64° 58' 00"W	(5545806.0299',3833920.5495',1113.48')	(5545789.5730',3833912.8639',1113.77')	(5545799.5729',3833912.9136')
17	Line	22.00'		S89° 42' 55"W	3+92.90'	4+14.90'				(5545789.5730',3833912.8639',1113.77')	(5545767.5733',3833912.7545',1114.11')	
18	Line	40.03'		N0° 17' 05"W	4+14.90'	4+54.93'				(5545767.5733',3833912.7545',1114.11')	(5545767.3743',3833952.7807',1115.06')	
19	Curve	19.80'	89.00'		4+54.93'	4+74.73'	12.7476 (d)	19.76'	N6° 39' 31"W	(5545767.3743',3833952.7807',1115.06')	(5545765.0830',3833972.4080',1115.63')	(5545678.3754',3833952.3383')
20	Line	127.90'		N13° 01' 57"W	4+74.73'	6+02.63'				(5545765.0830',3833972.4080',1115.63')	(5545736.2406',3834097.0167',1120.19')	
21	Curve	35.30'	15.00'		6+02.63'	6+37.93'	134.8283 (d)	27.70'	N80° 26' 48"W	(5545736.2406',3834097.0167',1120.19')	(5545708.9256',3834101.6138',1120.80')	(5545721.6269',3834093.6341')
22	Line	15.00'		N57° 51' 39"W	6+37.93'	6+52.93'				(5545708.9256',3834101.6138',1120.80')	(5545696.2242',3834109.5935',1120.80')	
23	Line	41.94'		N32° 08' 21"E	6+52.93'	6+94.88'				(5545696.2242',3834109.5935',1120.80')	(5545718.5378',3834145.1103',1119.30')	
24	Curve	42.70'	20.00'		6+94.88'	7+37.58'	122.3272 (d)	35.04'	N29° 01' 28"W	(5545718.5378',3834145.1103',1119.30')	(5545701.5370',3834175.7498',1118.46')	(5545701.6026',3834155.7499')

SHOWER BUILDING CONCRETE PARKING AREA EDGE CONTROL

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	2.00'		S87° 19' 15"W	0+00.00'	0+02.00'				(5545767.2781',3833956.4984',1115.06')	(5545765.2803',3833956.4049',1115.24')	
2	Curve	18.97'	10.00'		0+02.00'	0+20.97'	108.6958 (d)	16.25'	N57° 01' 37"W	(5545765.2803',3833956.4049',1115.24')	(5545751.6465',3833965.2497',1117.10')	(5545755.2912',3833955.9375')
3	Line	7.18'		S68° 37' 30"W	0+20.97'	0+28.15'				(5545751.6465',3833965.2497',1117.10')	(5545744.9589',3833962.6322',1117.65')	
4	Curve	7.85'	5.00'		0+28.15'	0+36.01'	90.0000 (d)	7.07'	S23° 37' 30"W	(5545744.9589',3833962.6322',1117.65')	(5545742.1251',3833956.1537',1118.10')	(5545746.7812',3833957.9761')
5	Line	17.00'		S21° 22' 30"E	0+36.01'	0+53.01'				(5545742.1251',3833956.1537',1118.10')	(5545748.3211',3833940.3231',1118.55')	
6	Line	36.00'		S68° 37' 30"W	0+53.01'	0+89.01'				(5545748.3211',3833940.3231',1118.55')	(5545714.7974',3833927.2021',1119.25')	
7	Line	18.00'		N21° 22' 30"W	0+89.01'	1+07.01'				(5545714.7974',3833927.2021',1119.25')	(5545708.2369',3833943.9640',1119.00')	
8	Curve	15.71'	10.00'		1+07.01'	1+22.71'	90.0000 (d)	14.14'	N66° 22' 30"W	(5545708.2369',3833943.9640',1119.00')	(5545695.2801',3833949.6315',1119.50')	(5545698.9248',3833940.3193')
9	Line	5.00'		S68° 37' 30"W	1+22.71'	1+27.71'				(5545695.2801',3833949.6315',1119.50')	(5545690.6240',3833947.8091',1119.60')	
10	Line	14.00'		N21° 22' 30"W	1+27.71'	1+41.71'				(5545690.6240',3833947.8091',1119.60')	(5545685.5214',3833960.8461',1119.75')	
11	Line	70.31'		N68° 37' 30"E	1+41.71'	2+12.03'				(5545685.5214',3833960.8461',1119.75')	(5545750.9993',3833986.4737',1116.65')	
12	Curve	14.25'	10.00'		2+12.03'	2+26.28'	81.6574 (d)	13.08'	N27° 47' 47"E	(5545750.9993',3833986.4737',1116.65')	(5545757.0970',3833998.0408',1116.64')	(5545747.3546',3833995.7858')
13	Line	2.00'		N76° 58' 03"E	2+26.28'	2+28.28'				(5545757.0970',3833998.0408',1116.64')	(5545759.0455',3833998.4918',1116.60')	

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

MAIN CAMP ROAD EDGE CTL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021

SHEET No: 57

MAIN CAMPGROUND ROAD CENTERLINE CONTROL

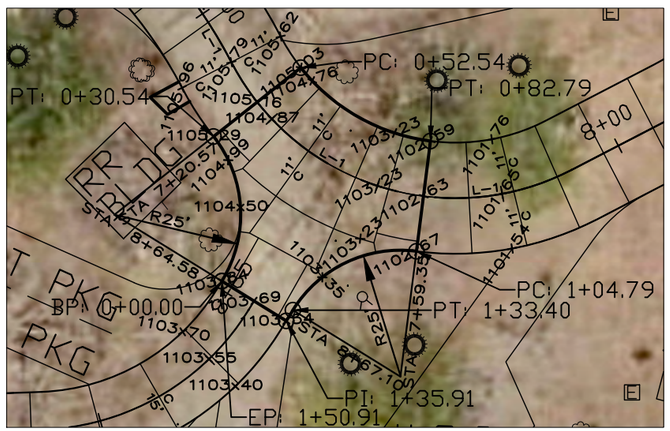
No.	Type	Length	Radius	Direction	Start Stati	End Statio	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	26.24'		S7° 52' 31"E	0+00.00'	0+26.24'				(5545728.2355',3834192.6349',1118.12')	(5545731.8306',3834166.6444',1118.46')	
2	Curve	9.00'	100.00'		0+26.24'	0+35.24'	5.1571 (d)	9.00'	S10° 27' 14"E	(5545731.8306',3834166.6444',1118.46')	(5545733.4632',3834157.7960',1118.71)	(5545830.8874',3834180.3462')
3	Line	187.74'		S13° 01' 57"E	0+35.24'	2+22.98'				(5545733.4632',3834157.7960',1118.71)	(5545775.7997',3833974.8885',1115.41')	
4	Curve	22.25'	100.00'		2+22.98'	2+45.23'	12.7476 (d)	22.20'	S6° 39' 31"E	(5545775.7997',3833974.8885',1115.41')	(5545778.3742',3833952.8354',1114.84')	(5545678.3754',3833952.3383')
5	Line	70.19'		S0° 17' 05"E	2+45.23'	3+15.43'				(5545778.3742',3833952.8354',1114.84')	(5545778.7231',3833882.6420',1113.67')	
6	Curve	15.95'	500.00'		3+15.43'	3+31.38'	1.8280 (d)	15.95'	S0° 37' 45"W	(5545778.7231',3833882.6420',1113.67')	(5545778.5479',3833866.6912',1113.51')	(5545278.7293',3833880.1567')
7	Line	124.95'		S1° 32' 36"W	3+31.38'	4+56.33'				(5545778.5479',3833866.6912',1113.51')	(5545775.1828',3833741.7826',1112.26')	
8	Curve	30.96'	200.00'		4+56.33'	4+87.29'	8.8690 (d)	30.93'	S2° 53' 29"E	(5545775.1828',3833741.7826',1112.26')	(5545776.7428',3833710.8941',1111.93')	(5545975.1102',3833736.3964')
9	Line	97.38'		S7° 19' 33"E	4+87.29'	5+84.67'				(5545776.7428',3833710.8941',1111.93')	(5545789.1596',3833614.3111',1109.86')	
10	Curve	102.87'	175.00'		5+84.67'	6+87.54'	33.6806 (d)	101.40'	S24° 09' 58"E	(5545789.1596',3833614.3111',1109.86')	(5545830.6698',3833521.8005',1107.14')	(5545962.7311',3833636.6256')
11	Curve	23.61'	100.00'		6+87.54'	7+11.15'	13.5265 (d)	23.55'	S34° 14' 35"E	(5545830.6698',3833521.8005',1107.14')	(5545843.9235',3833502.3298',1105.79')	(5545755.2063',3833456.1861')
12	Curve	78.46'	50.00'		7+11.15'	7+89.61'	89.9111 (d)	70.66'	S72° 26' 08"E	(5545843.9235',3833502.3298',1105.79')	(5545911.2852',3833481.0073',1100.74')	(5545888.2822',3833525.4017')
13	Line	24.01'		N62° 36' 32"E	7+89.61'	8+13.62'				(5545911.2852',3833481.0073',1100.74')	(5545932.6058',3833492.0547',1099.38')	
14	Curve	62.44'	50.00'		8+13.62'	8+76.06'	71.5454 (d)	58.46'	N26° 50' 11"E	(5545932.6058',3833492.0547',1099.38')	(5545958.9959',3833544.2159',1098.00')	(5545909.6029',3833536.4491')
15	Line	267.95'		N8° 56' 11"W	8+76.06'	11+44.00'				(5545958.9959',3833544.2159',1098.00')	(5545917.3741',3833808.9090',1098.99')	
16	Curve	71.29'	100.00'		11+44.00'	12+15.29'	40.8453 (d)	69.79'	N29° 21' 32"W	(5545917.3741',3833808.9090',1098.99')	(5545883.1582',3833869.7342',1105.42')	(5545818.5880',3833793.3753')
17	Line	91.36'		N49° 46' 54"W	12+15.29'	13+06.65'				(5545883.1582',3833869.7342',1105.42')	(5545813.3964',3833928.7259',1113.25')	

SEE SHEET #67 FOR
EDGE OF PAVEMENT CONTROL

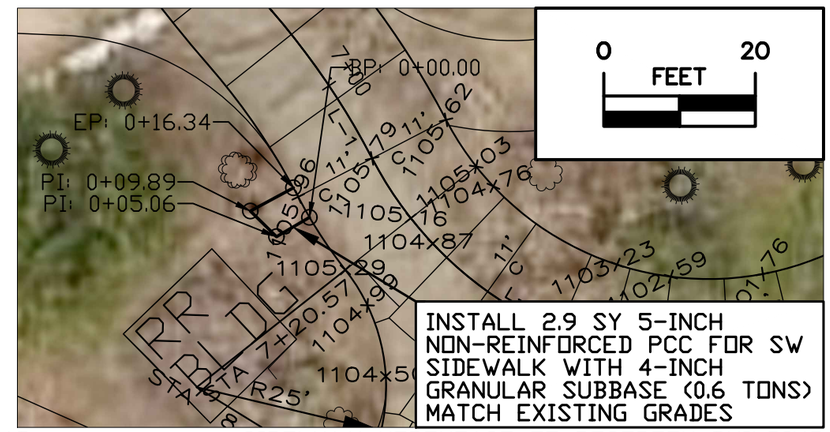
0 30
FEET

SIDEWALK PAVEMENT EDGE CONTROL NE WALK SOUTH RESTROOM BUILDING

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	5.06'	S59° 36' 41"W	0+00.00'	0+05.06'	(5545835.6626',3833494.5442')	(5545831.3015',3833491.9867')
2	Line	4.84'	N45° 23' 28"W	0+05.06'	0+09.89'	(5545831.3015',3833491.9867')	(5545827.8570',3833495.3846')
3	Line	6.45'	N61° 39' 04"E	0+09.89'	0+16.34'	(5545827.8570',3833495.3846')	(5545833.5327',3833498.4469')



INTERSECTION DETAIL MAIN CAMPGROUND ROAD & WEST ROAD
SEE BELOW FOR EDGE OF PAVEMENT CONTROL



SIDEWALK NORTHEAST OF RESTROOM BUILDING
SEE ABOVE FOR EDGE OF PAVEMENT CONTROL

MAIN CAMPGROUND ROAD & WEST ROAD INTERSECTION PAVEMENT EDGE CONTROL

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	30.54'	25.00'		0+00.00'	0+30.54'	69.9945 (d)	28.68'	N3° 16' 43"W	(5545842.0350',3833458.9854',1103.84')	(5545840.3949',3833487.6153',1105.29')	(5545820.7690',3833472.1291')
2	Line	22.00'		N51° 43' 27"E	0+30.54'	0+52.54'				(5545840.3949',3833487.6153',1105.29')	(5545857.6657',3833501.2432',1105.03')	
3	Curve	30.25'	39.00'		0+52.54'	0+82.79'	44.4432 (d)	29.50'	S60° 29' 51"E	(5545857.6657',3833501.2432',1105.03')	(5545883.3395',3833486.7162',1102.59')	(5545888.2822',3833525.4017')
4	Line	22.00'		S7° 16' 51"W	0+82.79'	1+04.79'				(5545883.3395',3833486.7162',1102.59')	(5545880.5514',3833464.8936',1102.67')	
5	Curve	28.61'	25.00'		1+04.79'	1+33.40'	65.5626 (d)	27.07'	S64° 29' 59"W	(5545880.5514',3833464.8936',1102.67')	(5545856.1170',3833453.2388',1103.50')	(5545877.3830',3833440.0952')
6	Line	2.52'		S31° 43' 07"W	1+33.40'	1+35.91'				(5545856.1170',3833453.2388',1103.50')	(5545854.7946',3833451.0992',1103.54')	
7	Line	15.00'		N58° 16' 53"W	1+35.91'	1+50.91'				(5545854.7946',3833451.0992',1103.54')	(5545842.0350',3833458.9854',1103.84')	

CONSULTANT:

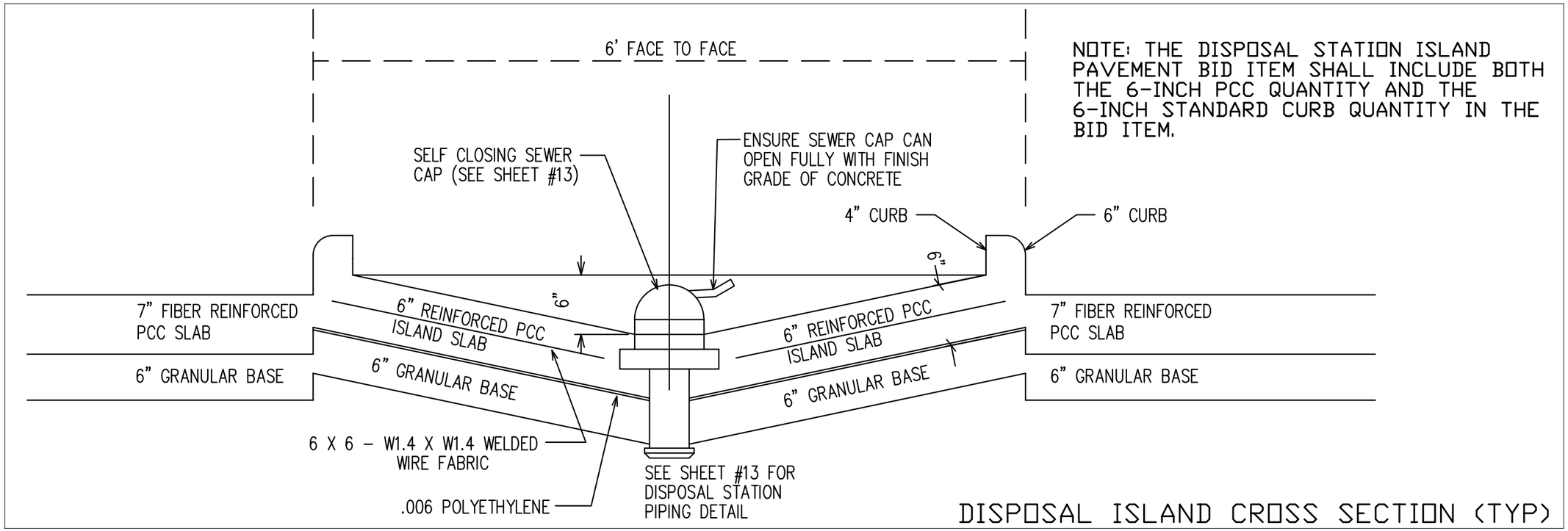
IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

MAIN CAMP ROAD INTERSECTIONS

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

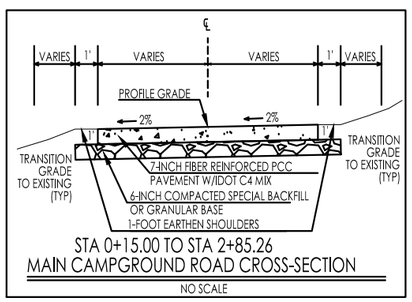
NO.	BY DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 58

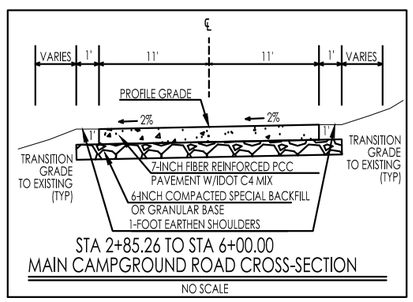


NOTE: THE DISPOSAL STATION ISLAND PAVEMENT BID ITEM SHALL INCLUDE BOTH THE 6-INCH PCC QUANTITY AND THE 6-INCH STANDARD CURB QUANTITY IN THE BID ITEM.

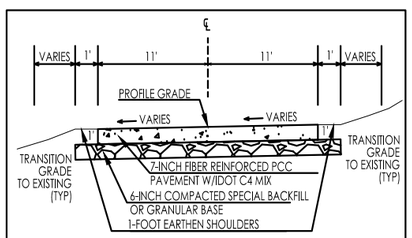
DISPOSAL ISLAND CROSS SECTION (TYP)



STA 0+15.00 TO STA 2+85.26
MAIN CAMPGROUND ROAD CROSS-SECTION
NO SCALE

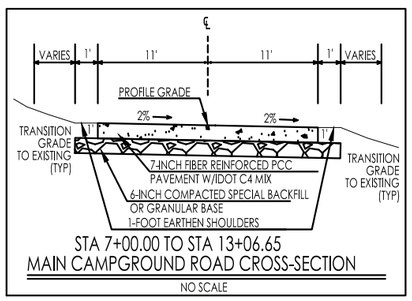


STA 2+85.26 TO STA 6+00.00
MAIN CAMPGROUND ROAD CROSS-SECTION
NO SCALE



NOTE: TRANSITION CROSS-SLOPE FROM +2% TO -2% BETWEEN STATIONS 6+00.00 AND 7+00.00. AT STATION 6+00.00 THE CROSS-SLOPE IS 2% RIGHT TO LEFT, AT STATION 6+50.00 THERE IS 0% CROSS-SLOPE AND AT STATION 7+00.00 THE CROSS-SLOPE IS 2% LEFT TO RIGHT.

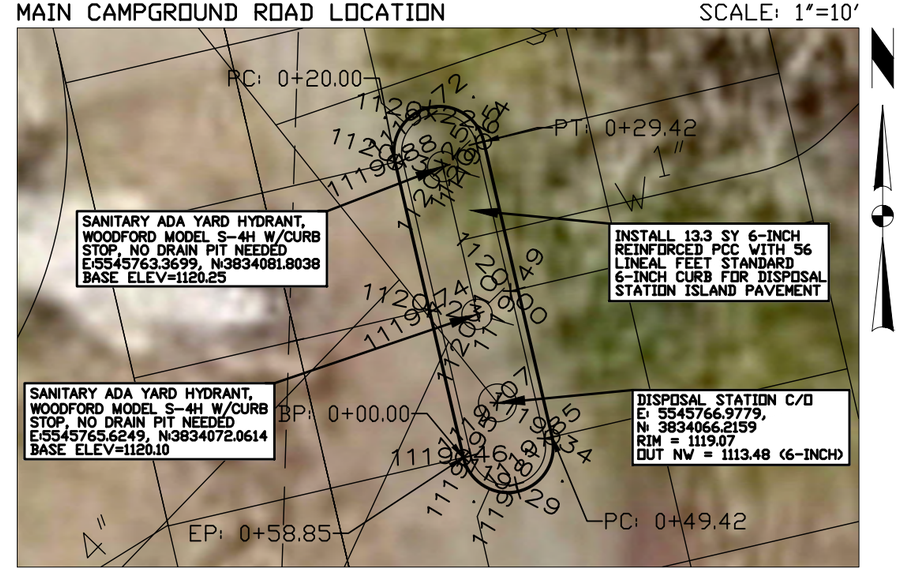
STA 6+00.00 TO STA 7+00.00
MAIN CAMPGROUND ROAD CROSS-SECTION
NO SCALE



STA 7+00.00 TO STA 13+06.65
MAIN CAMPGROUND ROAD CROSS-SECTION
NO SCALE

DISPOSAL STATION ISLAND DETAILS
MAIN CAMPGROUND ROAD LOCATION

SCALE: 1"=10'



DISPOSAL STATION ISLAND PAVEMENT EDGE CONTROL MAIN CAMPGROUND ROAD LOCATION

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	20.00'		N13° 01' 57"W	0+00.00'	0+20.00'				(5545764.7317',3834062.6167',1119.46')	(5545760.2217',3834082.1015',1119.88')	
2	Curve	9.42'	3.00'		0+20.00'	0+29.42'	180.0000 (d)	6.00'	N76° 58' 03"E	(5545760.2217',3834082.1015',1119.88')	(5545766.0671',3834083.4546',1119.64')	(5545763.1444',3834082.7780')
3	Line	20.00'		S13° 01' 57"E	0+29.42'	0+49.42'				(5545766.0671',3834083.4546',1119.64')	(5545770.5772',3834063.9697',1119.34')	
4	Curve	9.42'	3.00'		0+49.42'	0+58.85'	180.0000 (d)	6.00'	S76° 58' 03"W	(5545770.5772',3834063.9697',1119.34')	(5545764.7317',3834062.6167',1119.46')	(5545767.6544',3834063.2932')

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

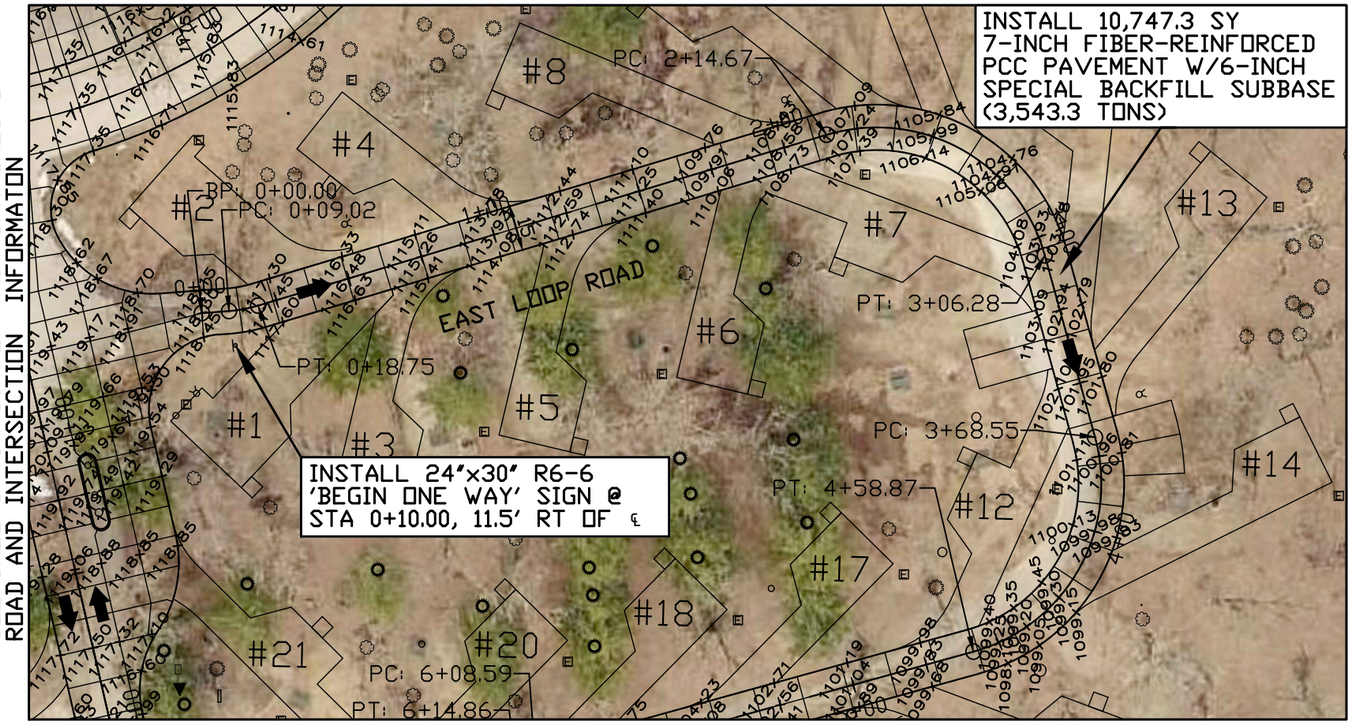
MAIN CAMP ROAD X-SECTIONS

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY: DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 59

SEE SHEETS #54-59 FOR MAIN CAMPGROUND ROAD AND INTERSECTION INFORMATON



SEE SHEET #61 FOR CONTINUATION

0 FEET 50

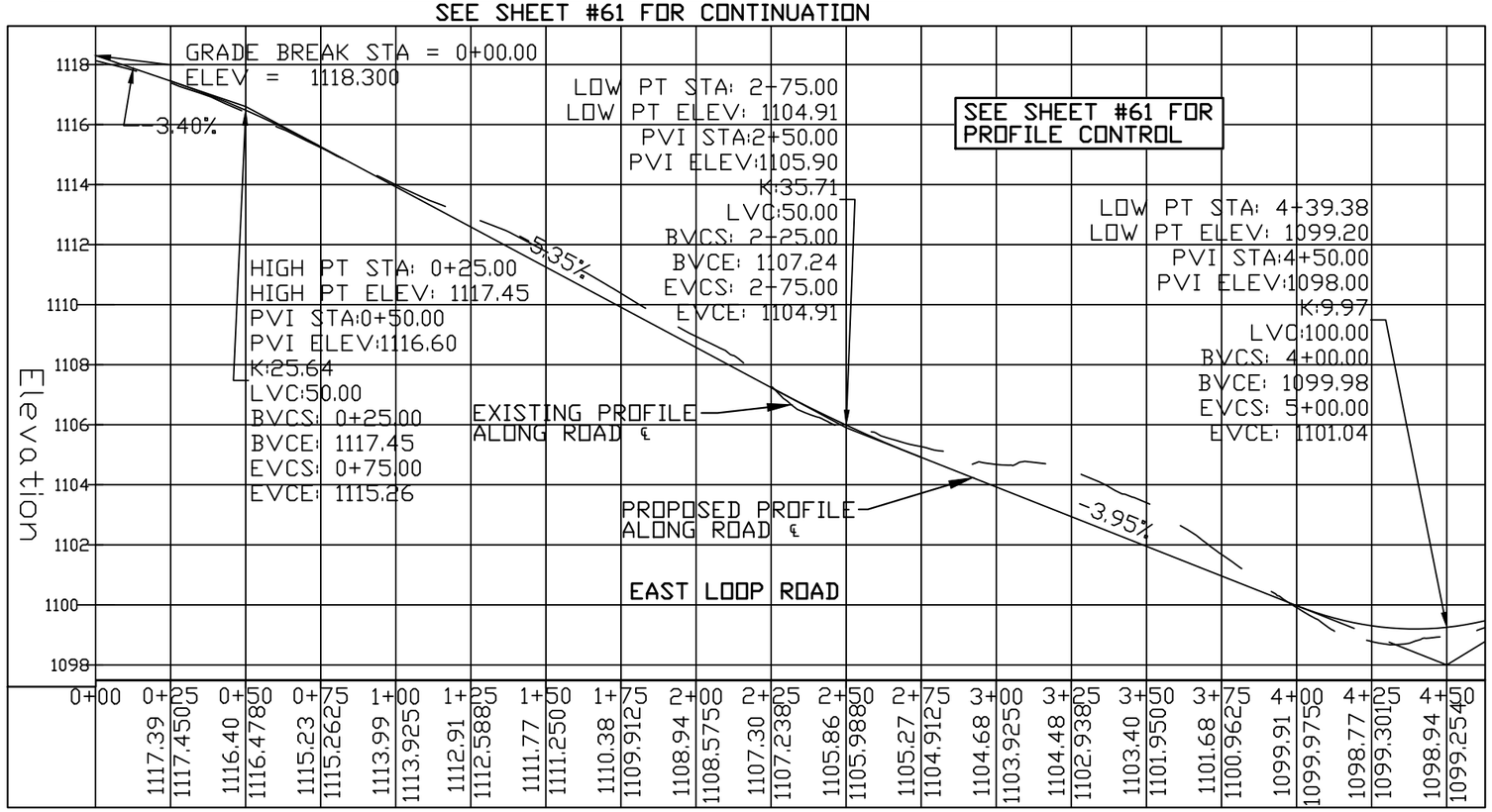
SEE SHEET #64 FOR EAST LOOP ROAD CENTERLINE CONTROL. SEE SHEETS #56 & 57 FOR INTERSECTION DETAILS & PAVEMENT EDGE CONTROL

SEE SHEETS #67-69 FOR SIGNAGE DETAILS

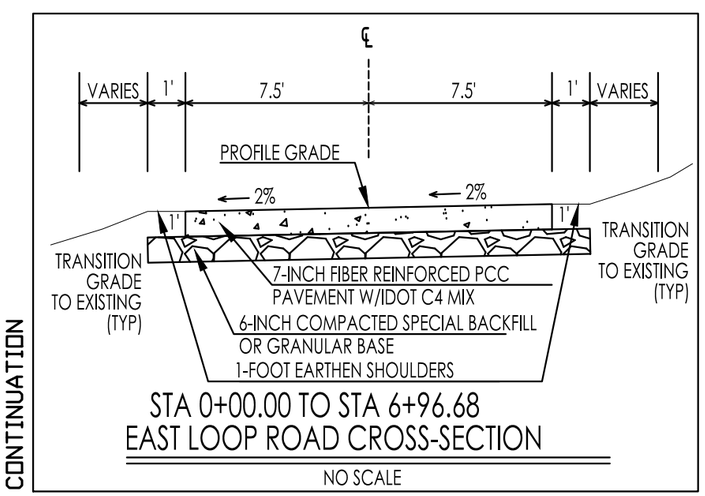
LEGEND

EXISTING/PROPOSED

- MANHOLE
- INTAKE
- HYDRANT
- VALVE
- OUTLET POST
- PP/LP — POWER POLE/ LIGHT POLE



SEE SHEET #61 FOR CONTINUATION



STA 0+00.00 TO STA 6+96.68
EAST LOOP ROAD CROSS-SECTION

NO SCALE

NOTE: THERE IS NO CENTERLINE JOINT ON THE 15-FOOT WIDE ROADS (EAST LOOP ROAD AND WEST ROAD).

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

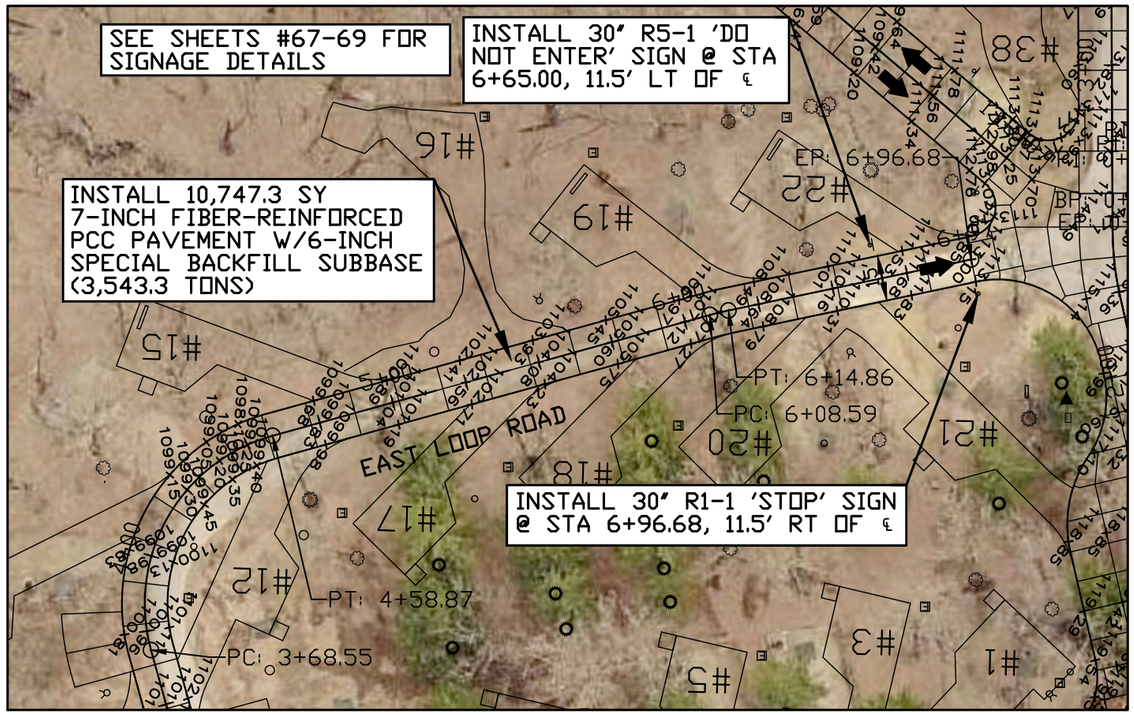
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

PAVING PLAN-EAST LOOP ROAD

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
CHK'D BY:
PROJECT NUMBER: 21-03-22-01
DATE: 5/01/2021
SHEET No: 60



SEE SHEET #60 FOR CONTINUATION

SEE SHEETS #54-59 FOR MAIN CAMPGROUND ROAD AND INTERSECTION INFORMATION

0 100
FEET

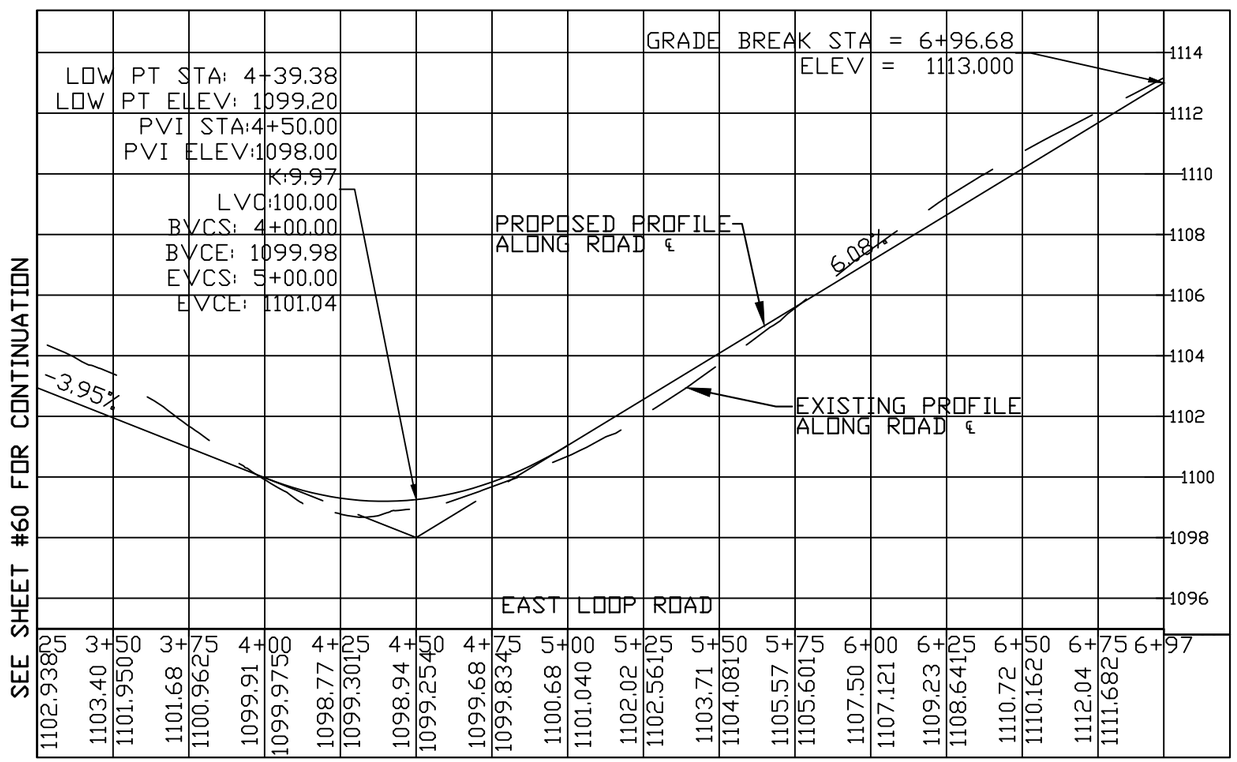
SEE SHEET #64 FOR EAST LOOP ROAD CENTERLINE CONTROL. SEE SHEETS #56 & 57 FOR INTERSECTION DETAILS & PAVEMENT EDGE CONTROL

LEGEND

EXISTING/PROPOSED

- MANHOLE
- INTAKE
- HYDRANT
- VALVE
- OUTLET POST
- PP/LP — POWER POLE/ LIGHT POLE

NOTE: THERE IS NO CENTERLINE JOINT ON THE 15-FOOT WIDE ROADS (EAST LOOP ROAD AND WEST ROAD).



SEE SHEET #60 FOR CONTINUATION

PROPOSED PROFILE GRADE LOOP ROAD

No.	PVI Station	PVI Elev	% In	% Out	% DIFF	TYPE	Length	K Value
1	0+00.00'	1118.30'		-3.40%				
2	0+50.00'	1116.60'	-3.40%	-5.35%	1.95%	Crest	50.00'	25.641
3	2+50.00'	1105.90'	-5.35%	-3.95%	1.40%	Sag	50.00'	35.714
4	4+50.00'	1098.00'	-3.95%	6.08%	10.03%	Sag	100.00'	9.969
5	6+96.68'	1113.00'	6.08%					

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

PAVING PLAN-EAST LOOP ROAD

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	DATE	BY	REVISION

DRAWN BY:
CHK'D BY:
PROJECT NUMBER: 21-03-22-01
DATE: 5/01/2021
SHEET No: 61

SEE SHEETS #56-57 FOR MAIN CAMPGROUND ROAD PAVEMENT EDGE CONTROL FROM STA 0+00.00 TO STA 2+85.26 AND SHOWER BUILDING PARKING DETAILS

SEE SHEETS #54-59 FOR MAIN CAMPGROUND ROAD AND INTERSECTION INFORMATON

0 100 FEET

LEGEND

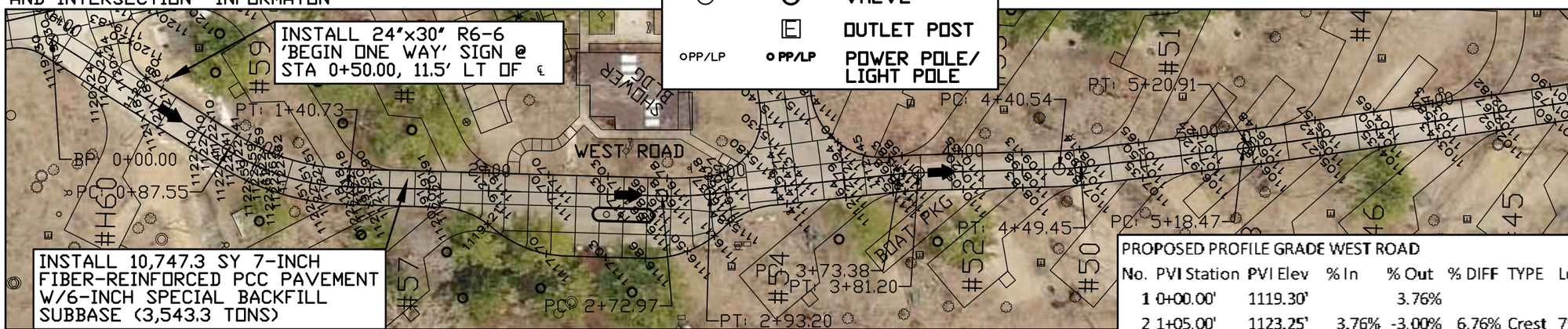
EXISTING/PROPOSED

- MANHOLE
- INTAKE
- HYDRANT
- VALVE
- OUTLET POST
- OPP/LP — POWER POLE/ LIGHT POLE

SEE SHEET #63 FOR CROSS-SECTIONS AND DISPOSAL STATION ISLAND DETAILS. SEE SHEET #64 FOR WEST ROAD CENTERLINE CONTROL. SEE SHEETS #65 & 66 FOR INTERSECTION DETAILS, PAVEMENT EDGE CONTROL & SIDEWALKS LEADING TO SHOWER BUILDING.

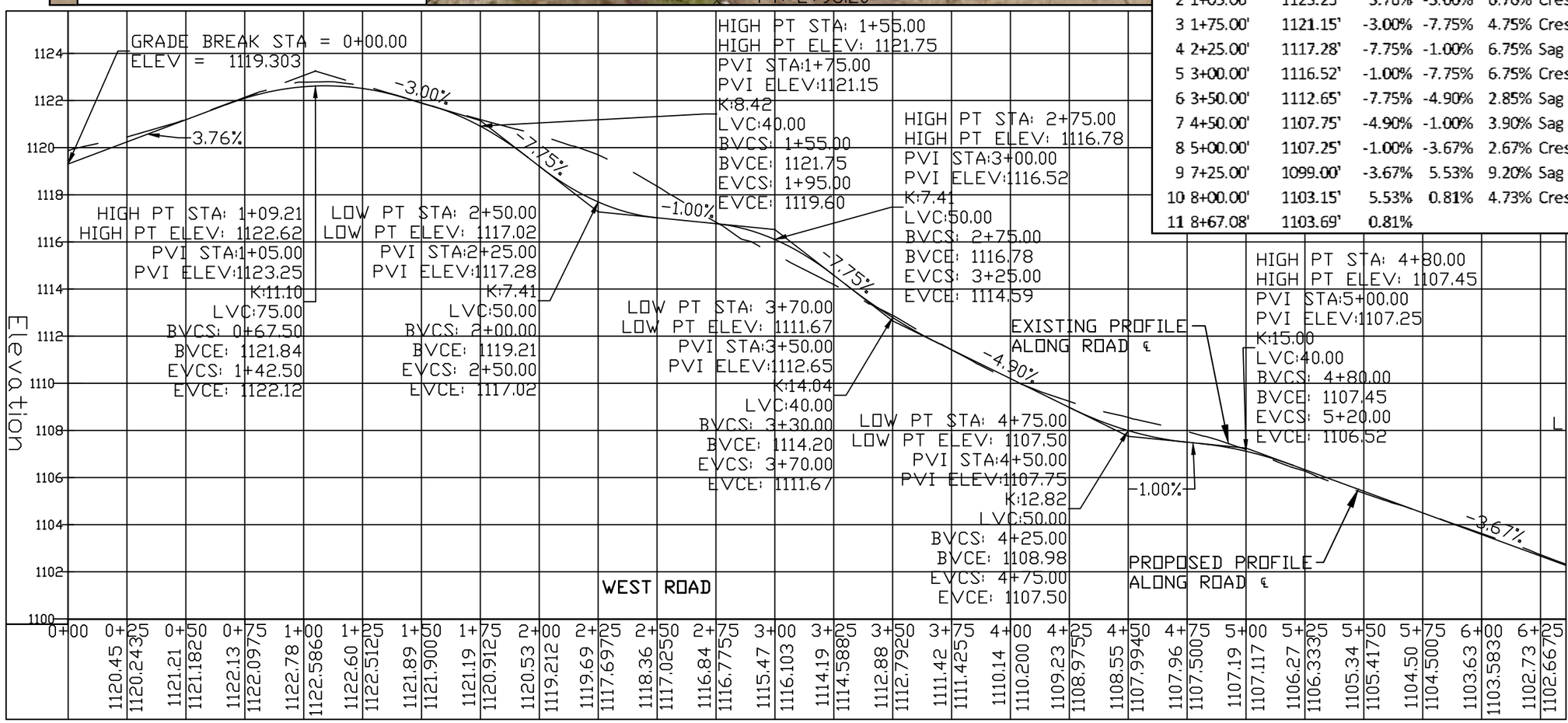
SEE SHEETS #67-69 FOR SIGNAGE DETAILS

NOTE: THERE IS NO CENTERLINE JOINT ON THE 15-FOOT WIDE ROADS (EAST LOOP ROAD AND WEST ROAD).



PROPOSED PROFILE GRADE WEST ROAD

No.	PVI Station	PVI Elev	% In	% Out	% DIFF	TYPE	Length	K Value
1	0+00.00'	1119.30'		3.76%				
2	1+05.00'	1123.25'	3.76%	-3.00%	6.76%	Crest	75.00'	11.096
3	1+75.00'	1121.15'	-3.00%	-7.75%	4.75%	Crest	40.00'	8.421
4	2+25.00'	1117.28'	-7.75%	-1.00%	6.75%	Sag	50.00'	7.407
5	3+00.00'	1116.52'	-1.00%	-7.75%	6.75%	Crest	50.00'	7.407
6	3+50.00'	1112.65'	-7.75%	-4.90%	2.85%	Sag	40.00'	14.035
7	4+50.00'	1107.75'	-4.90%	-1.00%	3.90%	Sag	50.00'	12.821
8	5+00.00'	1107.25'	-1.00%	-3.67%	2.67%	Crest	40.00'	15
9	7+25.00'	1099.00'	-3.67%	5.53%	9.20%	Sag	75.00'	8.152
10	8+00.00'	1103.15'	5.53%	0.81%	4.73%	Crest	50.00'	10.576
11	8+67.08'	1103.69'	0.81%					



CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

PAVING PLAN-WEST ROAD

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

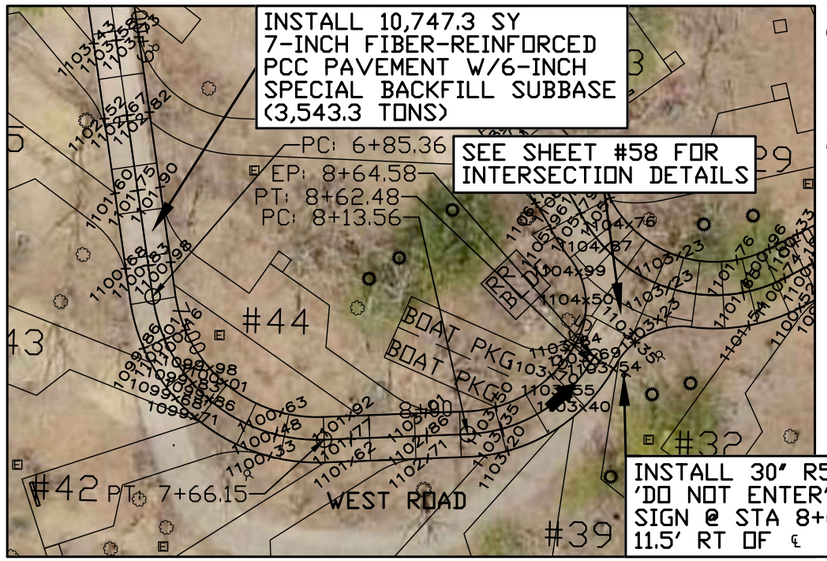
NO.	BY DATE	REVISION

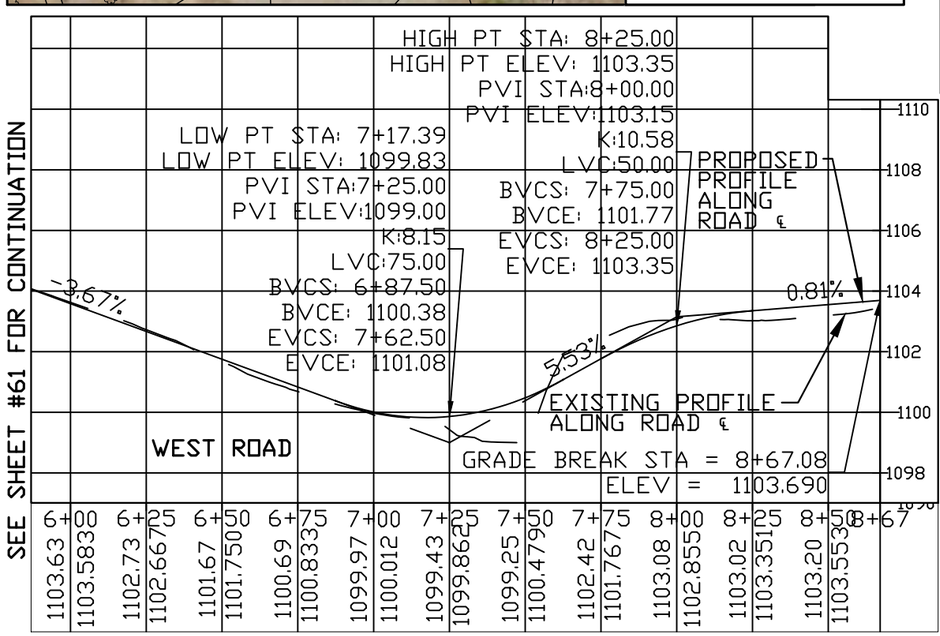
DRAWN BY: | PROJECT NUMBER: 21-03-22-01
CHK'D BY: | DATE: 5/01/2021
SHEET No: 62

NOTE: THERE IS NO CENTERLINE JOINT ON THE 15-FOOT WIDE ROADS (EAST LOOP ROAD AND WEST ROAD).

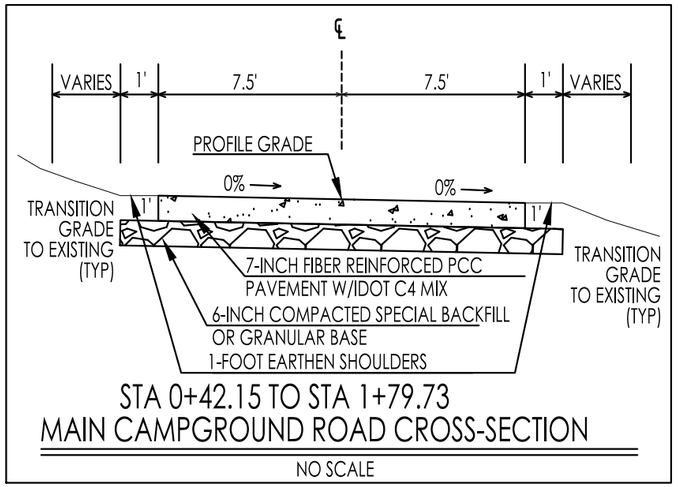
SEE SHEET #62 FOR CONTINUATION

0 50 FEET



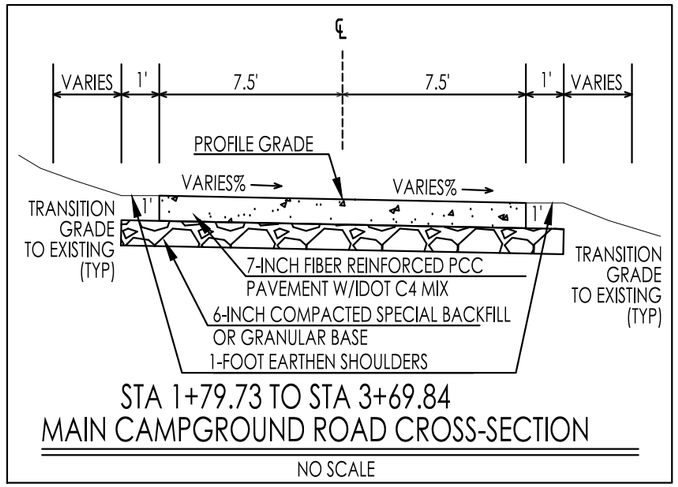


SEE SHEET #61 FOR CONTINUATION



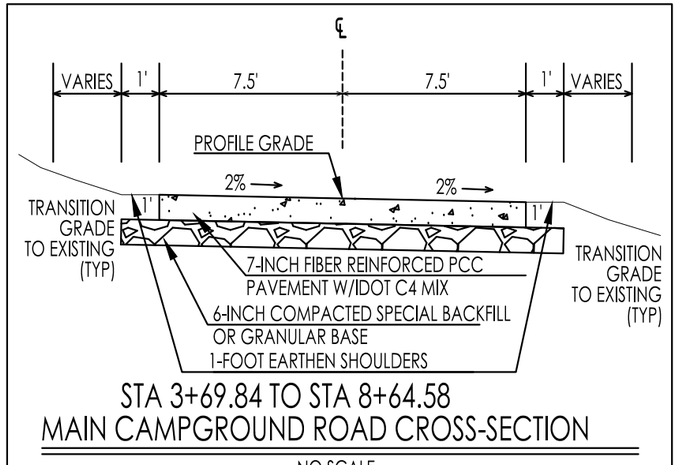
STA 0+42.15 TO STA 1+79.73
MAIN CAMPGROUND ROAD CROSS-SECTION

NO SCALE



STA 1+79.73 TO STA 3+69.84
MAIN CAMPGROUND ROAD CROSS-SECTION

NO SCALE



STA 3+69.84 TO STA 8+64.58
MAIN CAMPGROUND ROAD CROSS-SECTION

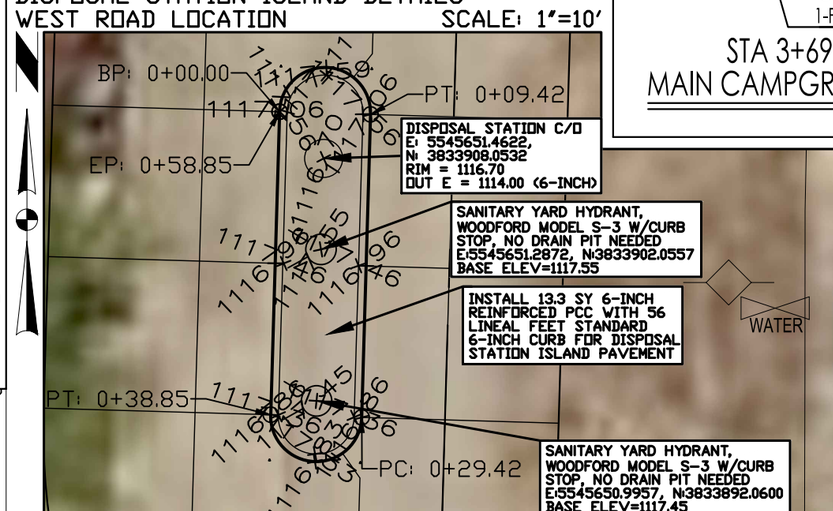
NO SCALE

LEGEND

EXISTING/PROPOSED

- MANHOLE
- INTAKE
- HYDRANT
- VALVE
- OUTLET POST
- OPP/LP — PP/LP — POWER POLE/ LIGHT POLE

DISPOSAL STATION ISLAND DETAILS
WEST ROAD LOCATION SCALE: 1"=10'



NOTES
1. THE DISPOSAL STATION ISLAND PAVEMENT BID ITEM SHALL INCLUDE BOTH THE 6-INCH PCC QUANTITY AND THE 6-INCH STANDARD CURB QUANTITY IN THE BIT ITEM.
2. SEE SHEET #59 FOR DISPOSAL ISLAND CROSS SECTION.

DISPOSAL STATION ISLAND PAVEMENT EDGE CONTROL WEST ROAD LOCATION

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	9.42'	3.00'		0+00.00'	0+09.42'	180.0000 (d)	6.00'	S88° 19' 45"E	(5545648.5509',3833911.1394',1117.06')	(5545654.5484',3833910.9644',1117.06')	(5545651.5496',3833911.0519')
2	Line	20.00'		S1° 40' 15"W	0+09.42'	0+29.42'				(5545654.5484',3833910.9644',1117.06')	(5545653.9652',3833890.9729',1116.86')	
3	Curve	9.42'	3.00'		0+29.42'	0+38.85'	180.0000 (d)	6.00'	N88° 19' 45"W	(5545653.9652',3833890.9729',1116.86')	(5545647.9678',3833891.1479',1116.86')	(5545650.9665',3833891.0604')
4	Line	20.00'		N1° 40' 15"E	0+38.85'	0+58.85'				(5545647.9678',3833891.1479',1116.86')	(5545648.5509',3833911.1394',1117.06')	

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

PAVING PLAN-WEST ROAD

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY DATE	REVISION

DRAWN BY: PROJECT NUMBER: 21-03-22-01
CHK'D BY: DATE: 5/01/2021
SHEET No: 63

EAST LOOP ROAD CENTERLINE CONTROL

No.	Type	Length	Radius	Direction	Start Stati	End Statio	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	9.02'		N85° 40' 23"E	0+00.00'	0+09.02'				(5545800.9212',3834132.0692',1118.30')	(5545809.9131',3834132.7496',1117.99')	
2	Curve	9.73'	45.00'		0+09.02'	0+18.75'	12.3924 (d)	9.71'	N79° 28' 36"E	(5545809.9131',3834132.7496',1117.99')	(5545819.4638',3834134.5237',1117.66')	(5545806.5179',3834177.6213')
3	Line	195.92'		N73° 16' 50"E	0+18.75'	2+14.67'				(5545819.4638',3834134.5237',1117.66')	(5546007.1013',3834190.8870',1107.79')	
4	Curve	91.61'	57.50'		2+14.67'	3+06.28'	91.2823 (d)	82.22'	S61° 04' 42"E	(5546007.1013',3834190.8870',1107.79')	(5546079.0688',3834151.1233',1103.68')	(5546023.6432',3834135.8178')
5	Line	62.27'		S15° 26' 14"E	3+06.28'	3+68.55'				(5546079.0688',3834151.1233',1103.68')	(5546095.6445',3834091.0978',1101.22')	
6	Curve	90.32'	57.50'		3+68.55'	4+58.87'	90.0000 (d)	81.32'	S29° 33' 46"W	(5546095.6445',3834091.0978',1101.22')	(5546055.5244',3834020.3667',1099.39')	(5546040.2189',3834075.7923')
7	Line	149.72'		S74° 33' 46"W	4+58.87'	6+08.59'				(5546055.5244',3834020.3667',1099.39')	(5545911.2081',3833980.5146',1107.64')	
8	Curve	6.27'	100.00'		6+08.59'	6+14.86'	3.5911 (d)	6.27'	S76° 21' 30"W	(5545911.2081',3833980.5146',1107.64')	(5545905.1183',3833979.0367',1108.02')	(5545884.5899',3834076.9069')
9	Line	81.82'		S78° 09' 14"W	6+14.86'	6+96.68'				(5545905.1183',3833979.0367',1108.02')	(5545825.0403',3833962.2402',1113.00')	

WEST ROAD ROAD CENTERLINE CONTROL

No.	Type	Length	Radius	Direction	Start Stati	End Statio	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	87.55'		S32° 08' 21"W	0+00.00'	0+87.55'				(5545724.9966',3834141.2926',1119.30')	(5545678.4217',3834067.1588',1122.41')	
2	Curve	53.18'	100.00'		0+87.55'	1+40.73'	30.4685 (d)	52.55'	S16° 54' 18"W	(5545678.4217',3834067.1588',1122.41')	(5545663.1400',3834016.8765',1122.18')	(5545763.0975',3834013.9609')
3	Line	132.25'		S1° 40' 15"W	1+40.73'	2+72.97'				(5545663.1400',3834016.8765',1122.18')	(5545659.2842',3833884.6859',1116.80')	
4	Curve	20.23'	150.00'		2+72.97'	2+93.20'	7.7259 (d)	20.21'	S2° 11' 32"E	(5545659.2842',3833884.6859',1116.80')	(5545660.0573',3833864.4896',1116.37')	(5545809.2204',3833880.3125')
5	Line	80.18'		S6° 03' 19"E	2+93.20'	3+73.38'				(5545660.0573',3833864.4896',1116.37')	(5545668.5148',3833784.7600',1111.50')	
6	Curve	7.82'	100.00'		3+73.38'	3+81.20'	4.4789 (d)	7.82'	S3° 48' 57"E	(5545668.5148',3833784.7600',1111.50')	(5545669.0349',3833776.9621',1111.12')	(5545569.0728',3833774.2114')
7	Line	59.35'		S1° 34' 34"E	3+81.20'	4+40.54'				(5545669.0349',3833776.9621',1111.12')	(5545670.6674',3833717.6367',1108.31')	
8	Curve	8.91'	100.00'		4+40.54'	4+49.45'	5.1025 (d)	8.90'	S4° 07' 39"E	(5545670.6674',3833717.6367',1108.31')	(5545671.3082',3833708.7571',1108.01')	(5545770.6296',3833720.3874')
9	Line	69.02'		S6° 40' 44"E	4+49.45'	5+18.47'				(5545671.3082',3833708.7571',1108.01')	(5545679.3359',3833640.2013',1106.57')	
10	Curve	2.44'	100.00'		5+18.47'	5+20.91'	1.3952 (d)	2.44'	S7° 22' 35"E	(5545679.3359',3833640.2013',1106.57')	(5545679.6485',3833637.7864',1106.48')	(5545778.6573',3833651.8316')
11	Line	164.45'		S8° 04' 26"E	5+20.91'	6+85.36'				(5545679.6485',3833637.7864',1106.48')	(5545702.7464',3833474.9624',1100.45')	
12	Curve	80.79'	55.00'		6+85.36'	7+66.15'	84.1572 (d)	73.72'	S50° 09' 09"E	(5545702.7464',3833474.9624',1100.45')	(5545759.3424',3833427.7290',1101.28')	(5545757.2012',3833482.6873')
13	Line	47.41'		N87° 46' 08"E	7+66.15'	8+13.56'				(5545759.3424',3833427.7290',1101.28')	(5545806.7213',3833429.5749',1103.20')	
14	Curve	48.91'	50.00'		8+13.56'	8+62.48'	56.0502 (d)	46.99'	N59° 44' 37"E	(5545806.7213',3833429.5749',1103.20')	(5545847.3067',3833453.2495',1103.65')	(5545804.7747',3833479.5370')
15	Line	2.11'		N31° 43' 07"E	8+62.48'	8+64.58'				(5545847.3067',3833453.2495',1103.65')	(5545848.4148',3833455.0423',1103.69')	

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILING
502 E. 9TH ST., DES MOINES, IA 50319-0034

EAST LOOP & WEST ROAD ℄ CONTROL

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

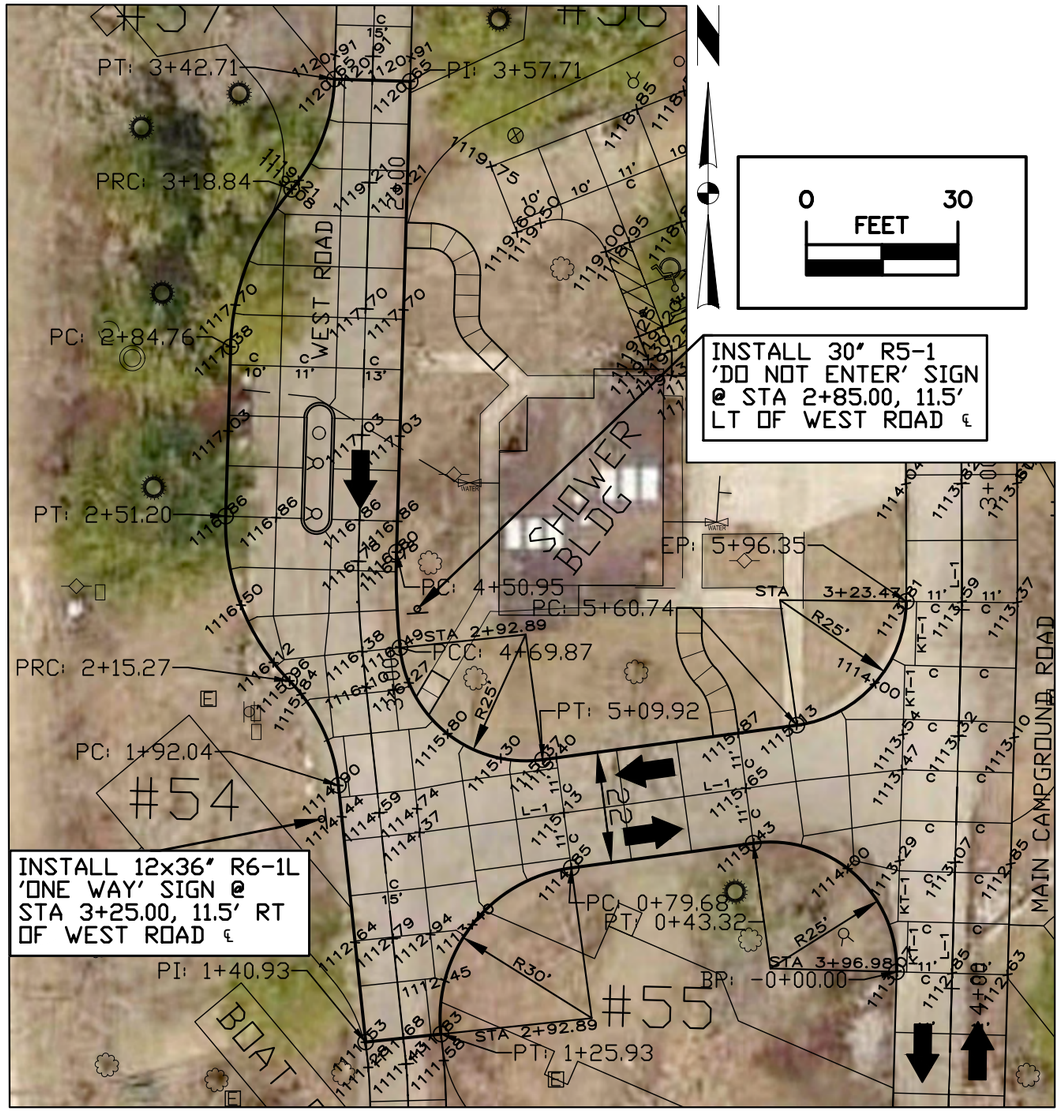
DRAWN BY:

CHK'D BY:

PROJECT NUMBER: 21-03-22-01

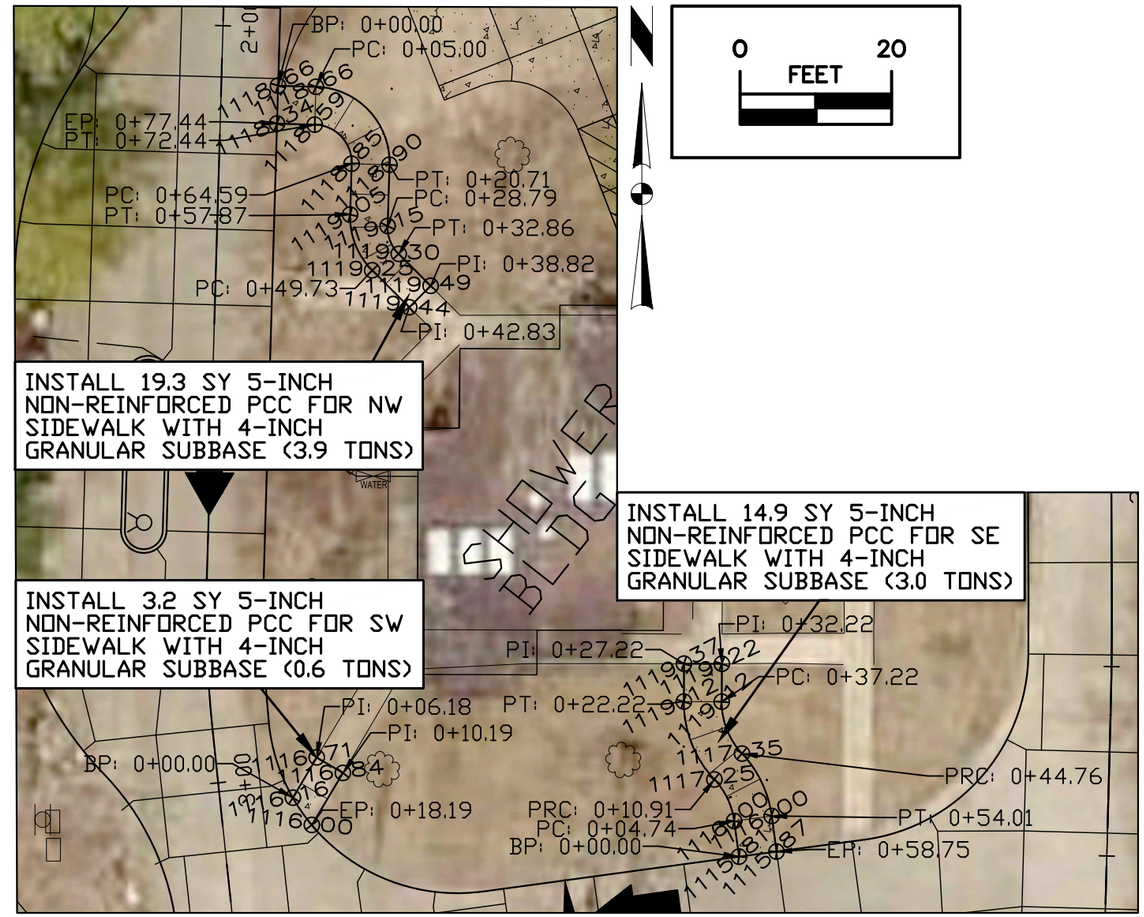
DATE: 5/01/2021

SHEET No: 64



SEE SHEETS #67-69 FOR SIGNAGE DETAILS

NOTE: THERE IS NO CENTERLINE JOINT ON THE 15-FOOT WIDE ROADS (EAST LOOP ROAD AND WEST ROAD).



SHOWER BUILDING SIDEWALK DETAILS

NOTES:
1. SEE SHEET #66 FOR PAVEMENT EDGE CONTROL OF WEST ROAD FROM STATION 1+79.73 TO STATION 3+69.84 AND SERVICE ROAD LOCATED SOUTH OF SHOWER BUILDING.
2. SEE SHEET #63 FOR DISPOSAL STATION ISLAND INFORMATION.
3. SEE SHEET #66 FOR SIDEWALK PAVEMENT EDGE CONTROL FOR THE 3 SIDEWALKS SOUTH AND WEST OF THE SHOWER BUILDING.
4. SEE SHEETS #54-59 FOR THE MAIN CAMPGROUND ROAD INFORMATION.

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

WEST ROAD PAVEMENT EDGE CTL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 65

WEST ROAD & SERVICE ROAD PAVEMENT EDGE CONTROL

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	43.32'	25.00'		0+00.00'	0+43.32'	99.2768 (d)	38.10'	N48° 05' 43"W	(5545765.7851',3833801.4069',1113.07')	(5545737.4300',3833826.8528',1115.43')	(5545740.7942',3833802.0801')
2	Line	36.37'		S82° 15' 59"W	0+43.32'	0+79.68'				(5545737.4300',3833826.8528',1115.43')	(5545701.3955',3833821.9592',1114.85')	
3	Curve	46.24'	30.00'		0+79.68'	1+25.93'	88.3214 (d)	41.80'	S38° 06' 20"W	(5545701.3955',3833821.9592',1114.85')	(5545675.6000',3833789.0675',1111.83')	(5545705.4326',3833792.2321')
4	Line	15.00'		S83° 56' 41"W	1+25.93'	1+40.93'				(5545675.6000',3833789.0675',1111.83')	(5545660.6837',3833787.4852',1111.53')	
5	Line	51.11'		N6° 03' 19"W	1+40.93'	1+92.04'				(5545660.6837',3833787.4852',1111.53')	(5545655.2923',3833838.3101',1114.90')	
6	Curve	23.23'	35.00'		1+92.04'	2+15.27'	38.0270 (d)	22.81'	N25° 04' 07"W	(5545655.2923',3833838.3101',1114.90')	(5545645.6296',3833858.9672',1115.96')	(5545620.4876',3833834.6181')
7	Curve	35.93'	45.00'		2+15.27'	2+51.20'	45.7529 (d)	34.99'	N21° 12' 20"W	(5545645.6296',3833858.9672',1115.96')	(5545632.9742',3833891.5852',1116.86')	(5545677.9550',3833890.2732')
8	Line	33.55'		N1° 40' 15"E	2+51.20'	2+84.76'				(5545632.9742',3833891.5852',1116.86')	(5545633.9525',3833925.1259',1117.38')	
9	Curve	34.09'	50.00'		2+84.76'	3+18.84'	39.0614 (d)	33.43'	N21° 12' 05"E	(5545633.9525',3833925.1259',1117.38')	(5545646.0428',3833956.2943',1119.08')	(5545683.9312',3833923.6681')
10	Curve	23.86'	35.00'		3+18.84'	3+42.71'	39.0614 (d)	23.40'	N21° 12' 05"E	(5545646.0428',3833956.2943',1119.08')	(5545654.5061',3833978.1122',1120.65')	(5545619.5210',3833979.1327')
11	Line	15.00'		S88° 19' 45"E	3+42.71'	3+57.71'				(5545654.5061',3833978.1122',1120.65')	(5545669.4997',3833977.6749',1120.65')	
12	Line	93.25'		S1° 40' 15"W	3+57.71'	4+50.95'				(5545669.4997',3833977.6749',1120.65')	(5545666.7810',3833884.4672',1116.80')	
13	Curve	18.92'	142.50'		4+50.95'	4+69.87'	7.6061 (d)	18.90'	S2° 07' 56"E	(5545666.7810',3833884.4672',1116.80')	(5545667.4843',3833865.5771',1116.49')	(5545809.2204',3833880.3125')
14	Curve	40.05'	25.00'		4+69.87'	5+09.92'	91.7982 (d)	35.91'	S51° 50' 04"E	(5545667.4843',3833865.5771',1116.49')	(5545695.7145',3833843.3897',1115.37')	(5545692.3503',3833868.1623')
15	Line	50.81'		N82° 15' 59"E	5+09.92'	5+60.74'				(5545695.7145',3833843.3897',1115.37')	(5545746.0648',3833850.2273',1115.13')	
16	Curve	35.62'	25.00'		5+60.74'	5+96.35'	81.6297 (d)	32.68'	N41° 27' 06"E	(5545746.0648',3833850.2273',1115.13')	(5545767.6991',3833874.7221',1113.81')	(5545742.7006',3833874.9999')

SIDEWALK PAVEMENT EDGE CONTROL SHOWER SE WALK

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	4.74'		N7° 44' 01"W	0+00.00'	0+04.74'				(5545729.5150',3833847.9798',1115.81')	(5545728.8769',3833852.6790',1116.00')	
2	Curve	6.16'	10.00'		0+04.74'	0+10.91'	35.3125 (d)	6.07'	N25° 23' 23"W	(5545728.8769',3833852.6790',1116.00')	(5545726.2759',3833858.1592',1117.25')	(5545718.9678',3833851.3333')
3	Curve	11.31'	15.00'		0+10.91'	0+22.22'	43.2127 (d)	11.05'	N21° 26' 23"W	(5545726.2759',3833858.1592',1117.25')	(5545722.2380',3833868.4416',1119.12')	(5545737.2380',3833868.3980')
4	Line	5.00'		N0° 10' 00"E	0+22.22'	0+27.22'				(5545722.2380',3833868.4416',1119.12')	(5545722.2526',3833873.4417',1119.37')	
5	Line	5.00'		S89° 49' 54"E	0+27.22'	0+32.22'				(5545722.2526',3833873.4417',1119.37')	(5545727.2525',3833873.4271',1119.22')	
6	Line	5.00'		S0° 10' 00"W	0+32.22'	0+37.22'				(5545727.2525',3833873.4271',1119.22')	(5545727.2380',3833868.4271',1119.12')	
7	Curve	7.54'	10.00'		0+37.22'	0+44.76'	43.2127 (d)	7.36'	S21° 26' 23"E	(5545727.2380',3833868.4271',1119.12')	(5545729.9299',3833861.5721',1117.35')	(5545737.2380',3833868.3980')
8	Curve	9.24'	15.00'		0+44.76'	0+54.01'	35.3125 (d)	9.10'	S25° 23' 23"E	(5545729.9299',3833861.5721',1117.35')	(5545733.8314',3833853.3518',1116.00')	(5545718.9678',3833851.3333')
9	Line	4.74'		S7° 44' 01"E	0+54.01'	0+58.75'				(5545733.8314',3833853.3518',1116.00')	(5545734.4696',3833848.6527',1115.87')	

SIDEWALK PAVEMENT EDGE CONTROL SHOWER NW WALK

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	5.00'		S88° 19' 45"E	0+00.00'	0+05.00'				(5545668.6841',3833949.7126',1118.66')	(5545673.6820',3833949.5669',1118.66')	
2	Curve	15.71'	10.00'		0+05.00'	0+20.71'	90.0000 (d)	14.14'	S43° 19' 45"E	(5545673.6820',3833949.5669',1118.66')	(5545683.3862',3833939.2796',1118.90')	(5545673.3904',3833939.5711')
3	Line	8.08'		S1° 40' 15"W	0+20.71'	0+28.79'				(5545683.3862',3833939.2796',1118.90')	(5545683.1505',3833931.2004',1119.15')	
4	Curve	4.07'	5.00'		0+28.79'	0+32.86'	46.6346 (d)	3.96'	S21° 38' 48"E	(5545683.1505',3833931.2004',1119.15')	(5545684.6106',3833927.5213',1119.30')	(5545688.1484',3833931.0546')
5	Line	5.96'		S44° 57' 50"E	0+32.86'	0+38.82'				(5545684.6106',3833927.5213',1119.30')	(5545688.8246',3833923.3020',1119.49')	
6	Line	4.01'		S45° 02' 10"W	0+38.82'	0+42.83'				(5545688.8246',3833923.3020',1119.49')	(5545685.9880',3833920.4690',1119.44')	
7	Line	6.90'		N44° 57' 50"W	0+42.83'	0+49.73'				(5545685.9880',3833920.4690',1119.44')	(5545681.1126',3833925.3506',1119.25')	
8	Curve	8.14'	10.00'		0+49.73'	0+57.87'	46.6346 (d)	7.92'	N21° 38' 48"W	(5545681.1126',3833925.3506',1119.25')	(5545678.1924',3833932.7087',1119.05')	(5545688.1881',3833932.4172')
9	Line	6.72'		N1° 40' 15"E	0+57.87'	0+64.59'				(5545678.1924',3833932.7087',1119.05')	(5545678.3883',3833939.4253',1118.85')	
10	Curve	7.85'	5.00'		0+64.59'	0+72.44'	90.0000 (d)	7.07'	N43° 19' 45"W	(5545678.3883',3833939.4253',1118.85')	(5545673.5362',3833944.5690',1118.59')	(5545673.3904',3833939.5711')
11	Line	5.00'		N88° 19' 45"W	0+72.44'	0+77.44'				(5545673.5362',3833944.5690',1118.59')	(5545668.5383',3833944.7148',1118.34')	

SIDEWALK PAVEMENT EDGE CONTROL SHOWER SW WALK

No.	Type	Length	Direction	Start Station	End Station	Start Point	End Point
1	Line	6.18'	N30° 38' 26"E	0+00.00'	0+06.18'	(5545670.6416',3833855.7633',1116.16')	(5545673.7896',3833861.0776',1116.71')
2	Line	4.02'	S59° 21' 34"E	0+06.18'	0+10.19'	(5545673.7896',3833861.0776',1116.71')	(5545677.2449',3833859.0309',1116.84')
3	Line	8.00'	S30° 53' 00"W	0+10.19'	0+18.19'	(5545677.2449',3833859.0309',1116.84')	(5545673.1385',3833852.1652',1116.00')

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILING
502 E. 9TH ST., DES MOINES, IA 50319-0034

WEST ROAD PAVEMENT EDGE CTL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY	DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 66

SIGNAGE QUANTITIES
2 EA R2-1 24"x30" 'SPEED LIMIT 15' SIGN
2 EA R1-1 'STOP' SIGN
3 EA R5-1 'DO NOT ENTER' SIGN
1 EA R6-1R 'ONE WAY' LEFT SIGN
2 EA R6-6 'BEGIN ONE WAY' SIGN
1 EA 12"x18" 'SLOW-STEEP GRADE AHEAD' (K-5750)
IN 3M DIAMOND GRADE FLUORESCENT YELLOW

SEE SHEETS #49, 54, 55, 60, 61, 62, 63, & 65 FOR SIGN LOCATIONS.

R2-1
SPEED LIMIT (ENGLISH)

*Optically space numerals about centerline

	A	B	C	D	E	F	G	H	J	K	L
	18	24	.375	.625	3	3 E	2	8 E	7.188	5.5	1.5
C	24	30	.375	.625	4	4 E	2	10 E	9.563	7.313	1.5
	36	48	.625	.875	6	6 E	5	14 E	14.375	11	2.25
	48	60	.75	1.25	8	8 E	6	16 E	19.125	14.625	3

R6-6
BEGIN ONE WAY

A	B	C	D	E	F	G	H	J	K	L	M
24	30	0.375	0.625	3.5	6 C	2.5	6 D	9.213	7.415	8.165	1.5

COLORS: LEGEND, BORDER – BLACK
BACKGROUND – WHITE (RETROREFLECTIVE)

CONSULTANT:

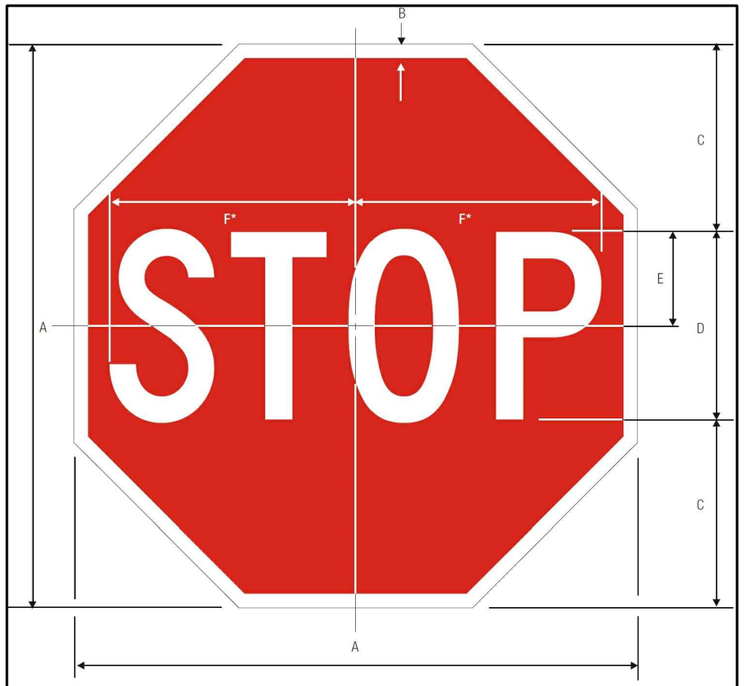
IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

SIGNAGE DETAILS

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 67

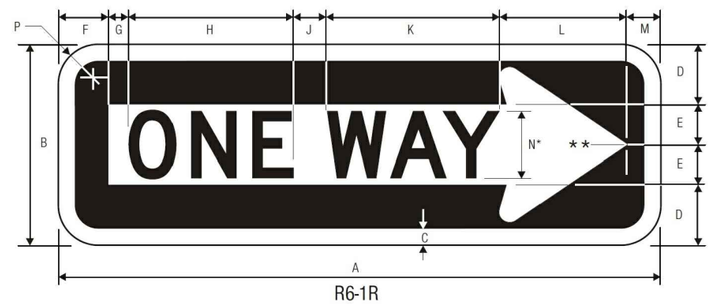


R1-1
STOP

*Reduce spacing 40%

A	B	C	D	E	F
30	.75	10	10 C	5	12.5

COLORS: LEGEND – WHITE (RETROREFLECTIVE)
BACKGROUND – RED (RETROREFLECTIVE)

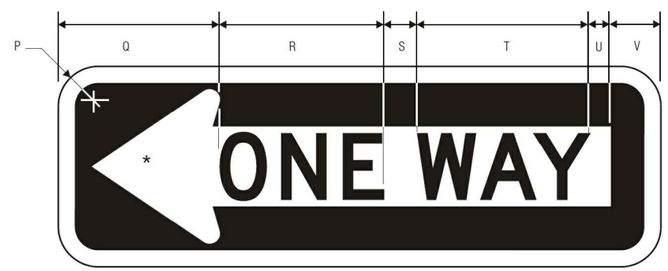


R6-1R
ONE WAY

A	B	C	D	E	F	G	H	J	K	L	M
36	12	.5	3.375	2.625	3	1.25	9.125	2	9.625	9	2

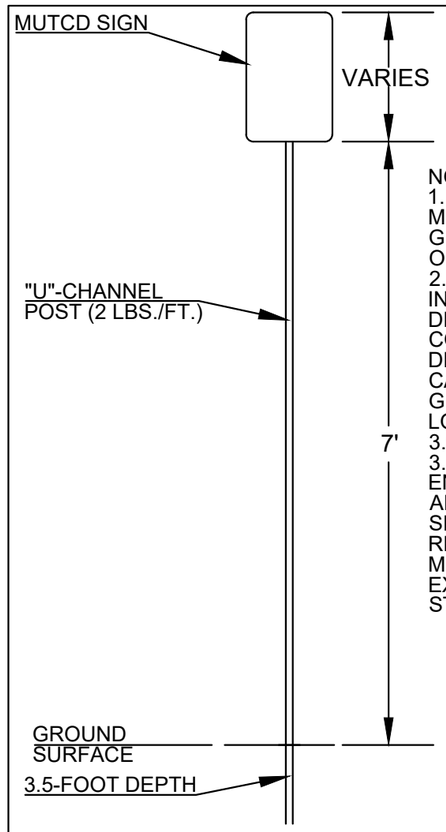
N	P	Q	R	S	T	U	V
4 D	1.5	11	9.125	2	9.625	1.25	3

*Series 2000 Standard Alphabets.
**See page 6-2 for arrow design.



R6-1L
ONE WAY

COLORS: LEGEND – BLACK
BACKGROUND – BLACK
ARROW – WHITE (RETROREFLECTIVE)



NOTES
1. SIGNS SHALL BE MOUNTED 7' FROM FINISH GRADE TO BOTTOM EDGE OF SIGN FACE.
2. SIGNAGE FOR TO BE INSTALLED AT LOCATIONS DESIGNATED IN THE CONSTRUCTION DRAWINGS. "U" CHANNEL CAN BE DRIVEN INTO GROUND AT SAID LOCATION TO A DEPTH OF 3.5 FEET.
3. ALL SIGNAGE SHALL BE ENGINEER GRADE .080 ALUMINUM REFLECTIVE SIGN MEETING THE REQUIREMENTS OF THE MUTCD AND ADAAG EXCEPT FOR THE 'SLOW STEEP GRADE SIGN'.

SIGN DETAIL
NOT TO SCALE

CONSULTANT:

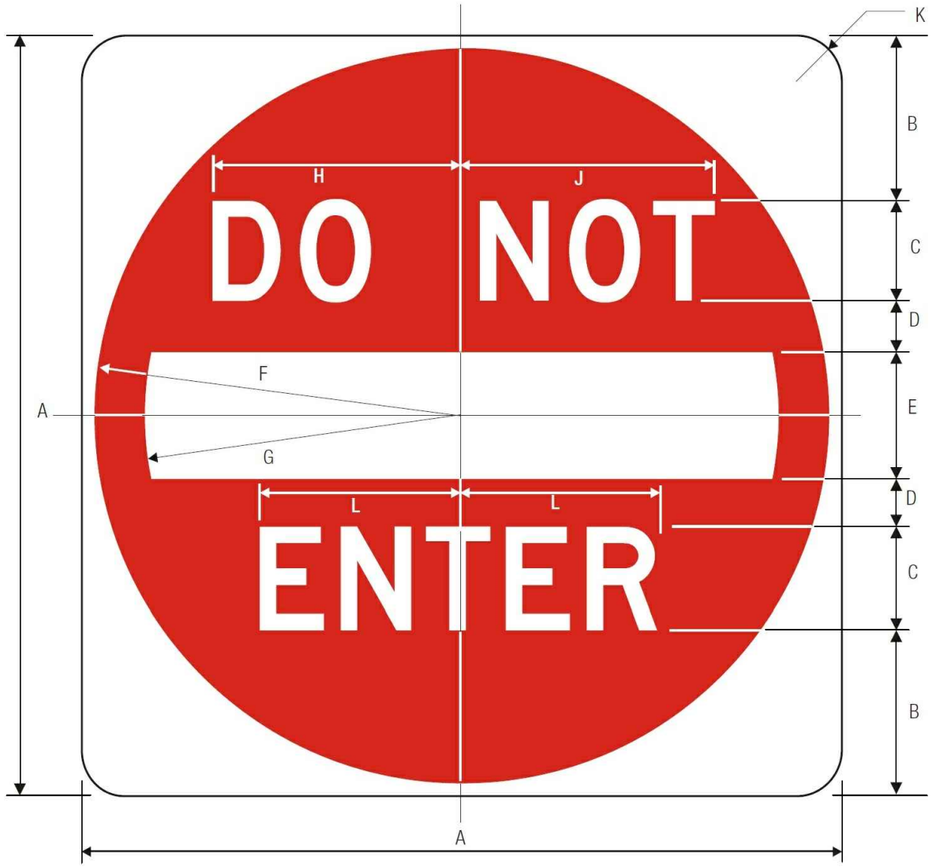
IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

SIGNAGE DETAILS

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
CHK'D BY:
PROJECT NUMBER: 21-03-22-01
DATE: 5/01/2021
SHEET No: 68



R5-1
DO NOT ENTER

A	B	C	D	E	F	G	H	J	K	L
30	6.5	4 D	2	5	14.5	12.5	9.75	10	1.875	7.875

COLORS: SYMBOL – RED (RETROREFLECTIVE)
LEGEND & BACKGROUND – WHITE (RETROREFLECTIVE)

12"x18" 'SLOW-STEEP GRADE AHEAD' IN 3M DIAMOND GRADE FLUORESCENT YELLOW
ROAD TRAFFIC SIGNS COMPANY (K-5750) OR SIMILAR

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502 E. 9TH ST., DES MOINES, IA 50319-0034

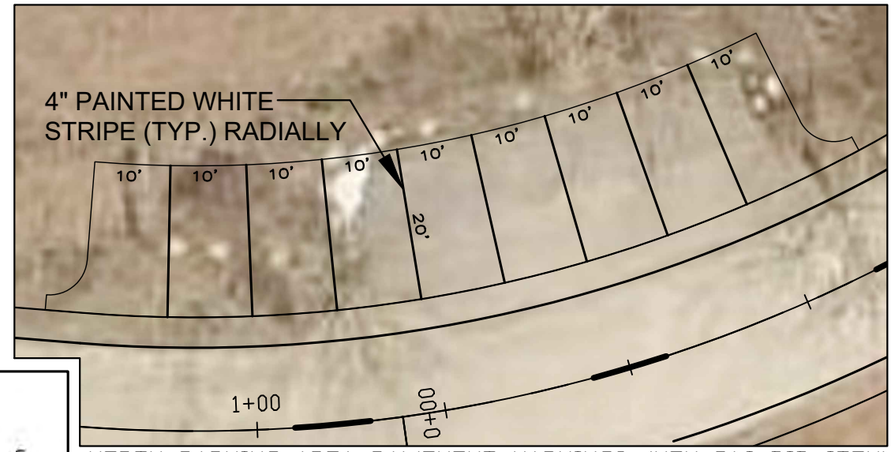
SIGNAGE DETAILS

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

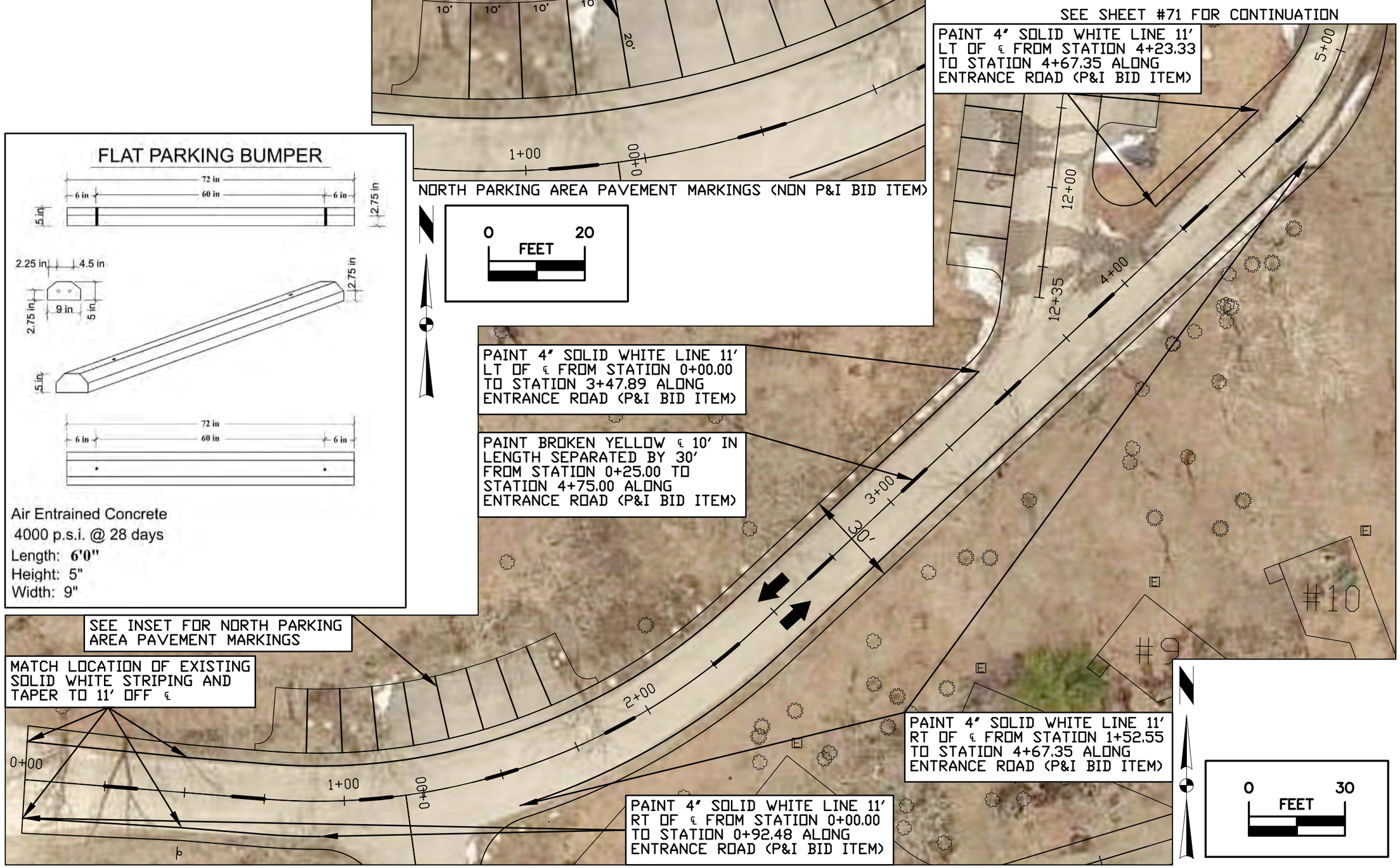
NO.	BY DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 69

NOTE: PAINT STRIPING AND MARKINGS SHALL BE IN ACCORDANCE TO IDOT SECTION 4183 'TRAFFIC PAINTS AND PAVEMENT MARKINGS'.



NORTH PARKING AREA PAVEMENT MARKINGS (NON P&I BID ITEM)



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502 E. 9TH ST., DES MOINES, IA 50319-0034

PAVEMENT MARKINGS

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY DATE	REVISION

DRAWN BY:

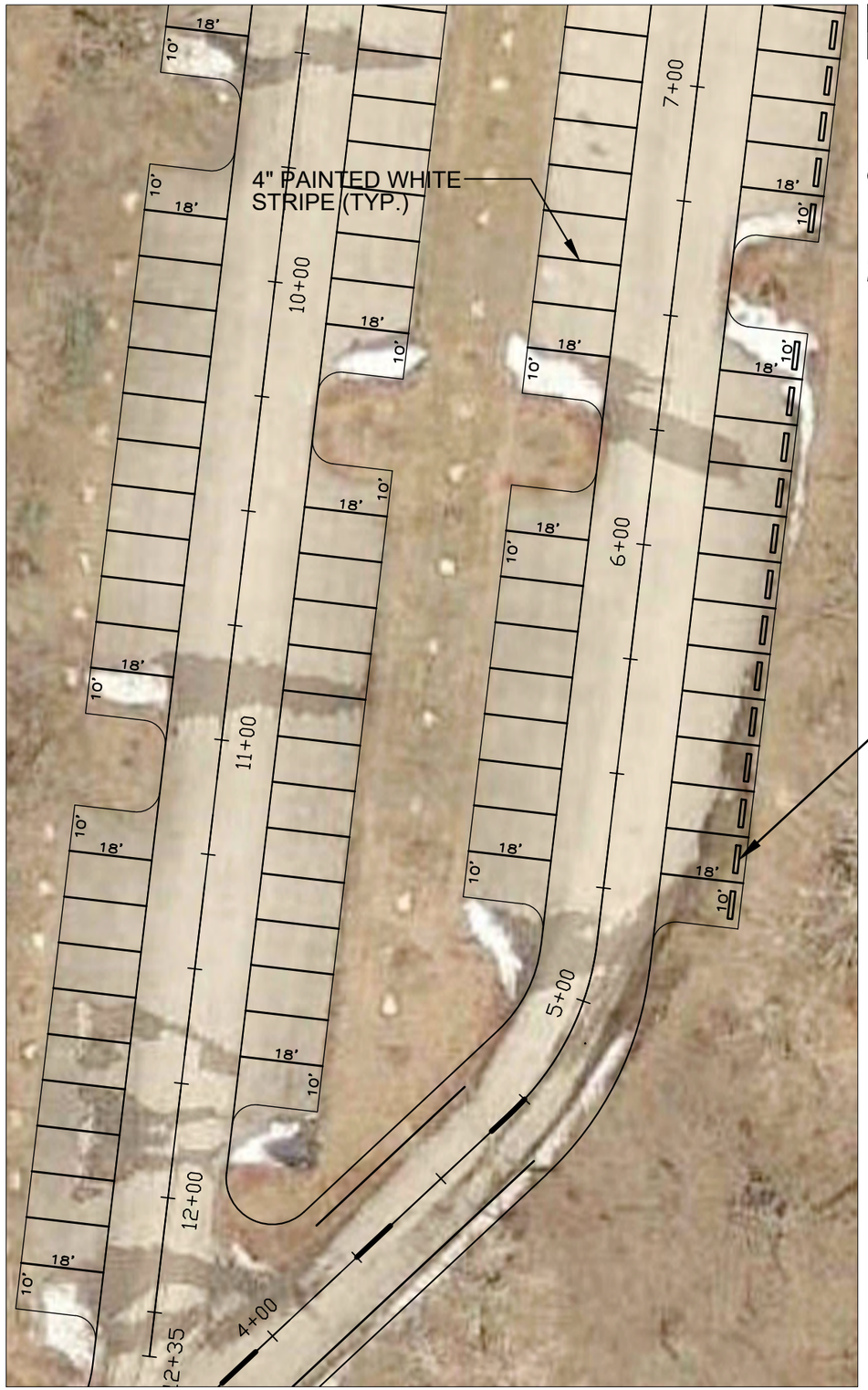
PROJECT NUMBER: 21-03-22-01

CHK'D BY:

DATE: 5/01/2021

SHEET No: 70

SEE ADJACENT FOR CONTINUATION



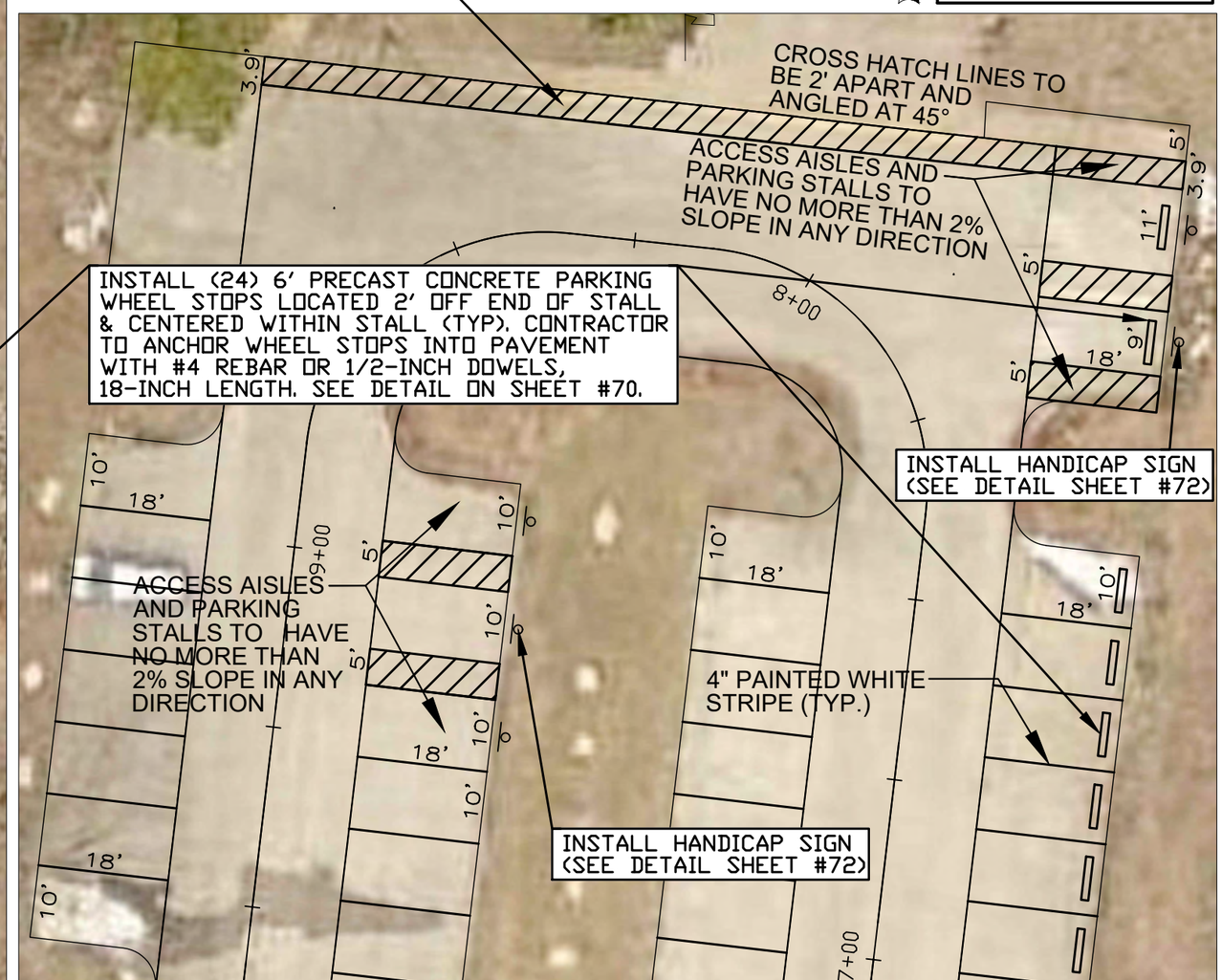
NOTE: PAINT STRIPING AND MARKINGS SHALL BE IN ACCORDANCE TO IDOT SECTION 4183 'TRAFFIC PAINTS AND PAVEMENT MARKINGS'.

NOTE: PARKING SPACE PAVEMENT STRIPING AND HANDICAP PARKING CROSS HATCH MARKINGS TO BE LUMP SUM BID ITEM #75.

0 FEET 30

0 FEET 20

110 LF OF CROSS HATCH ALONG DROP-OFF (PART OF P&I BID ITEM #74)



SEE ADJACENT FOR CONTINUATION

CONSULTANT:

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ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

PAVEMENT MARKINGS

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:

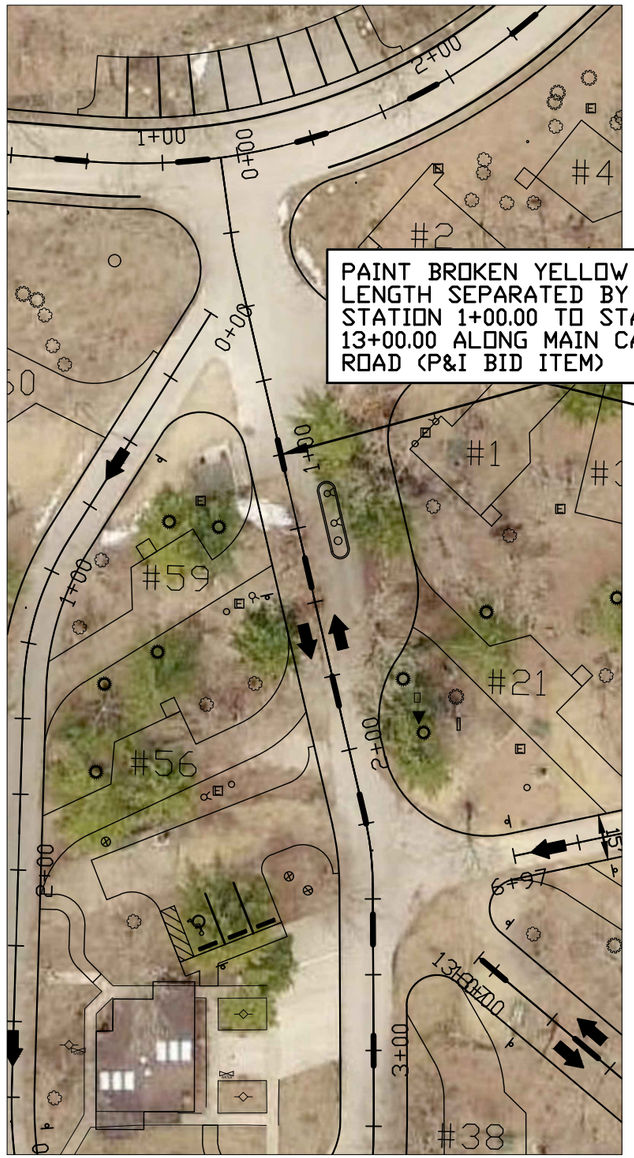
CHK'D BY:

PROJECT NUMBER: 21-03-22-01

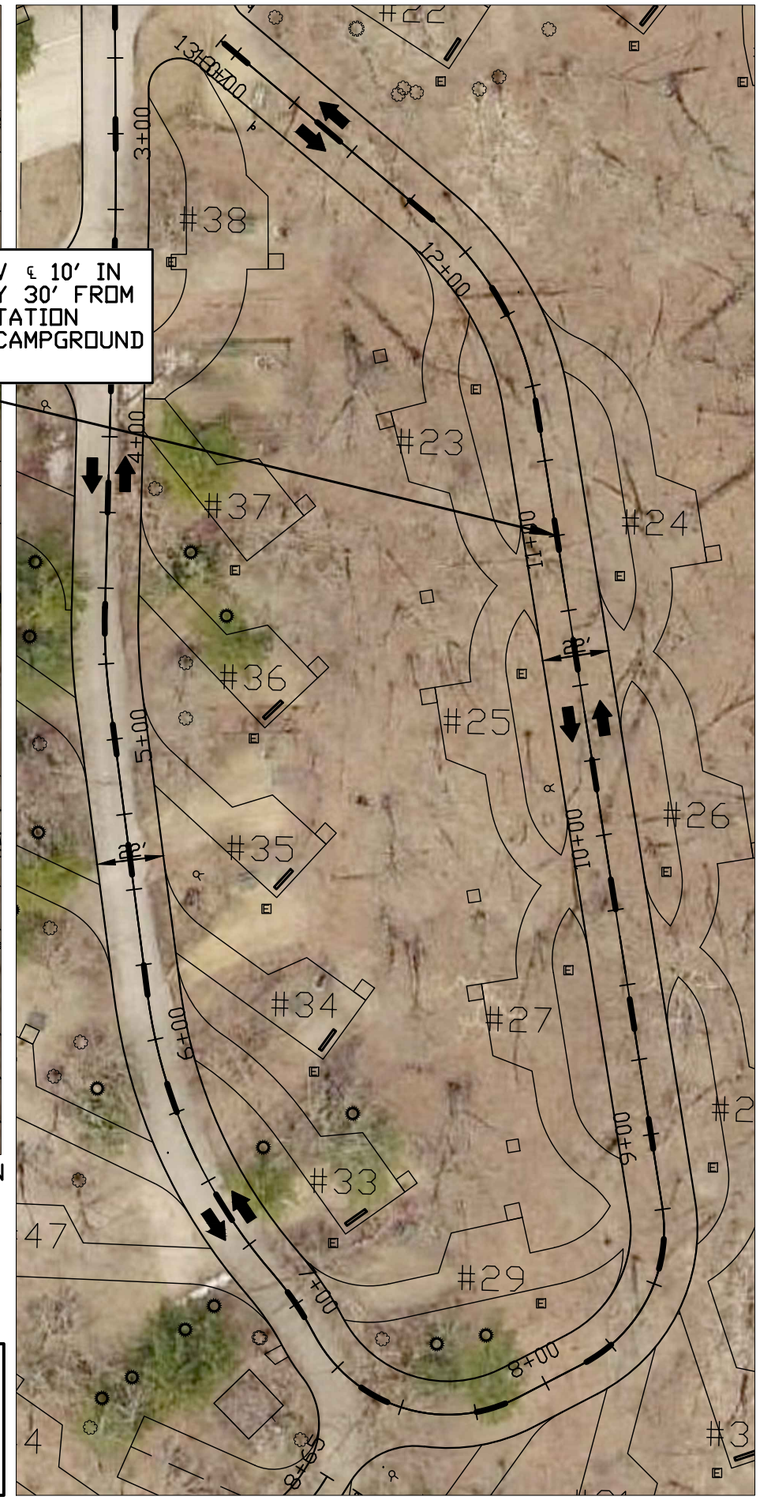
DATE: 5/01/2021

SHEET No: 71

SEE SHEET #70 FOR CONTINUATION SEE ADJACENT FOR CONTINUATION

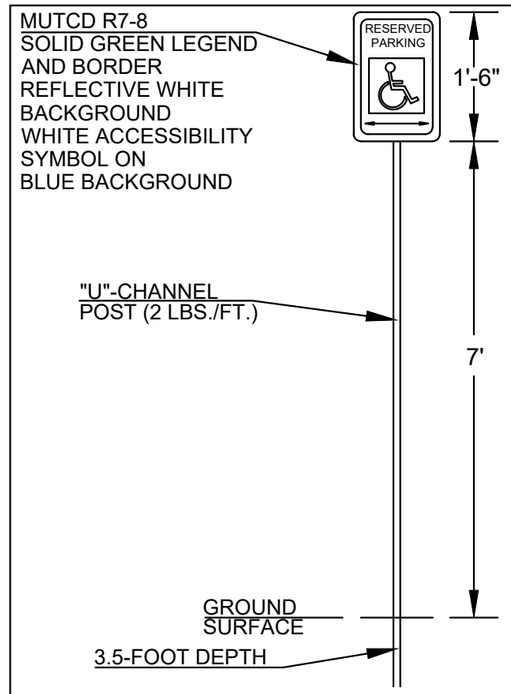


SEE ADJACENT FOR CONTINUATION



NOTE: PAINT STRIPING AND MARKINGS SHALL BE IN ACCORDANCE TO IDOT SECTION 4183 'TRAFFIC PAINTS AND PAVEMENT MARKINGS'.

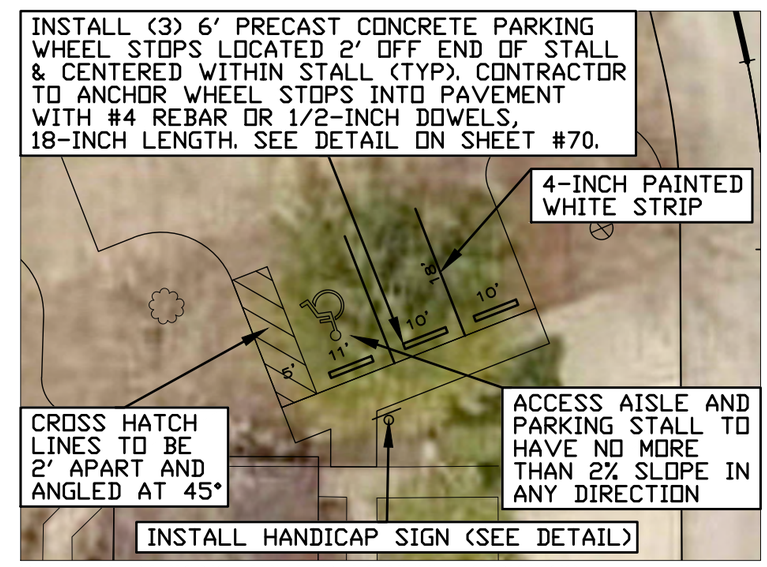
0 50
FEET



NOTES
1. 12"x18" ACCESSIBILITY SIGN (R7-8) SHALL BE MOUNTED 7' FROM FINISH GRADE TO BOTTOM EDGE OF SIGN FACE.
2. SIGNAGE FOR TO BE LOCATED ON END OF PARKING STALL, 2' BACK FROM EDGE OF PAVEMENT, CENTERED ON STALL IF POSSIBLE. "U" CHANNEL CAN BE DRIVEN INTO GROUND AT SAID LOCATION TO A DEPTH OF 3.5 FEET.
3. ALL SIGNAGE SHALL BE ENGINEER GRADE .080 ALUMINUM REFLECTIVE SIGN MEETING THE REQUIREMENTS OF THE MUTCD AND ADAAG.
4. SURFACE MOUNTING BASE TO BE 15-INCH DIAMETER ALUMINUM BASE (OR EQUIVALENT) THAT IS COMPATIBLE WITH 2 LBS./FT. "U" CHANNEL.

HANDICAP SIGN DETAIL

NOT TO SCALE



SHOWER PARKING AREA PAVEMENT MARKINGS (NON P&I BID ITEM)

NOTE: PARKING SPACE PAVEMENT STRIPING AND HANDICAP PARKING CROSS HATCH MARKINGS TO BE LUMP SUM BID ITEM #75.

0 20
FEET

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ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

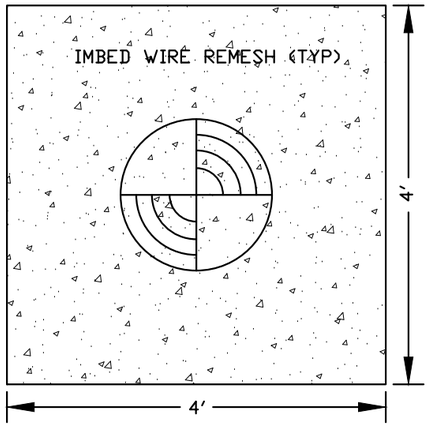
PAVEMENT MARKINGS

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

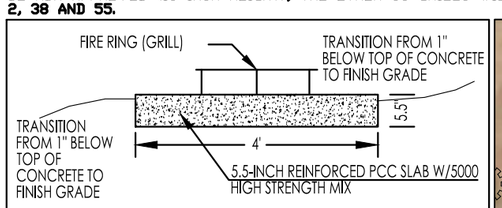
NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 72

FIRE RING NOTES:
1. FIRE RINGS SHALL BE 4'x4'x5.5" DEPTH (USE 2"x6" BOARDS FOR FORMS).
2. THEY SHALL HAVE WIRE REMESH PLACED AT MID-DEPTH (2.75").
3. CONTRACTOR TO SET THE CAMPFIRE RING ANCHORS INTO THE WET CEMENT TO A 4' DEPTH. COORDINATE CONSTRUCTION TECHNIQUES WITH PARK MANAGER MATT TSCHIRGI (563-873-2341).
4. CONTRACTOR TO USE 5,000 PSI HIGH STRENGTH CONCRETE THAT SETS IN 10-12 HOURS FOR THE FIRE RINGS (1.8 SY EACH). FIRE RINGS NEED TO CURE FOR 90 DAYS PRIOR TO FIRE USAGE, CONTRACTOR TO POUR THE FIRE RINGS TO ACCOMMODATE THIS SCHEDULE.
5. TOP OF FIRE RINGS SHALL BE 1-INCH ABOVE FINISH GRADE FOR DRAINAGE.
6. ALL ITEMS DESCRIBED TO BE INCLUDED IN BID ITEM.
7. THERE ARE 60 FIRE RINGS IN TOTAL. THE OWNER WILL SUPPLY THE GRILLS TO THE CONTRACTOR. 4 OF THE GRILLS WILL BE ADA APPROVED (18-INCH HEIGHT), THE OTHER 56 GRILLS WILL BE 12-INCH HEIGHTS. THE ADA SITES ARE CAMPPADS #1, 2, 38 AND 55.



4'x4' FIRE RING DETAIL (PLAN)
NO SCALE



4'x4' FIRE RING DETAIL (PROFILE)
NO SCALE

INSTALL ENGINEERING FABRIC (7,770 SY TOTAL) ON TOP OF COMPACTED SUBGRADE WITH A 4-INCH DEPTH MACADAM STONE (1,515 TONS TOTAL) AND A 2-INCH CAP LAYER OF CLASS 'A' CRUSHED STONE (990 TONS TOTAL, ALLOWS FOR 10% SHRINK) FOR EACH CAMPPAD (TYP).

INSTALL 147.1 SY 6-INCH NON-REINFORCED PCC WITH 6-INCH GRANULAR SUBBASE (44.7 TONS) FOR ADA CAMPPAD #2.

INSTALL 4'x4' CONCRETE FIRE RING (60 TOTAL) WITH ADA GRILL (GRILL PROVIDED BY OWNER), COORDINATE WITH DNR INSPECTOR (TYP).

INSTALL 178.9 SY 6-INCH NON-REINFORCED PCC WITH 6-INCH GRANULAR SUBBASE (54.3 TONS) FOR ADA CAMPPAD #1.

INSTALL 4'x4' CONCRETE FIRE RING (60 TOTAL) WITH GRILL (GRILL PROVIDED BY OWNER), COORDINATE WITH DNR INSPECTOR (TYP). SEE DETAIL ON THIS SHEET.

SEE SHEETS #84-100 FOR TRAVERSE CONTROL INFORMATION

SEE SHEET #74 FOR CONTINUATION

EAST LOOP ROAD

0 20
FEET

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ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 73

SEE SHEET #73 FOR CONTINUATION

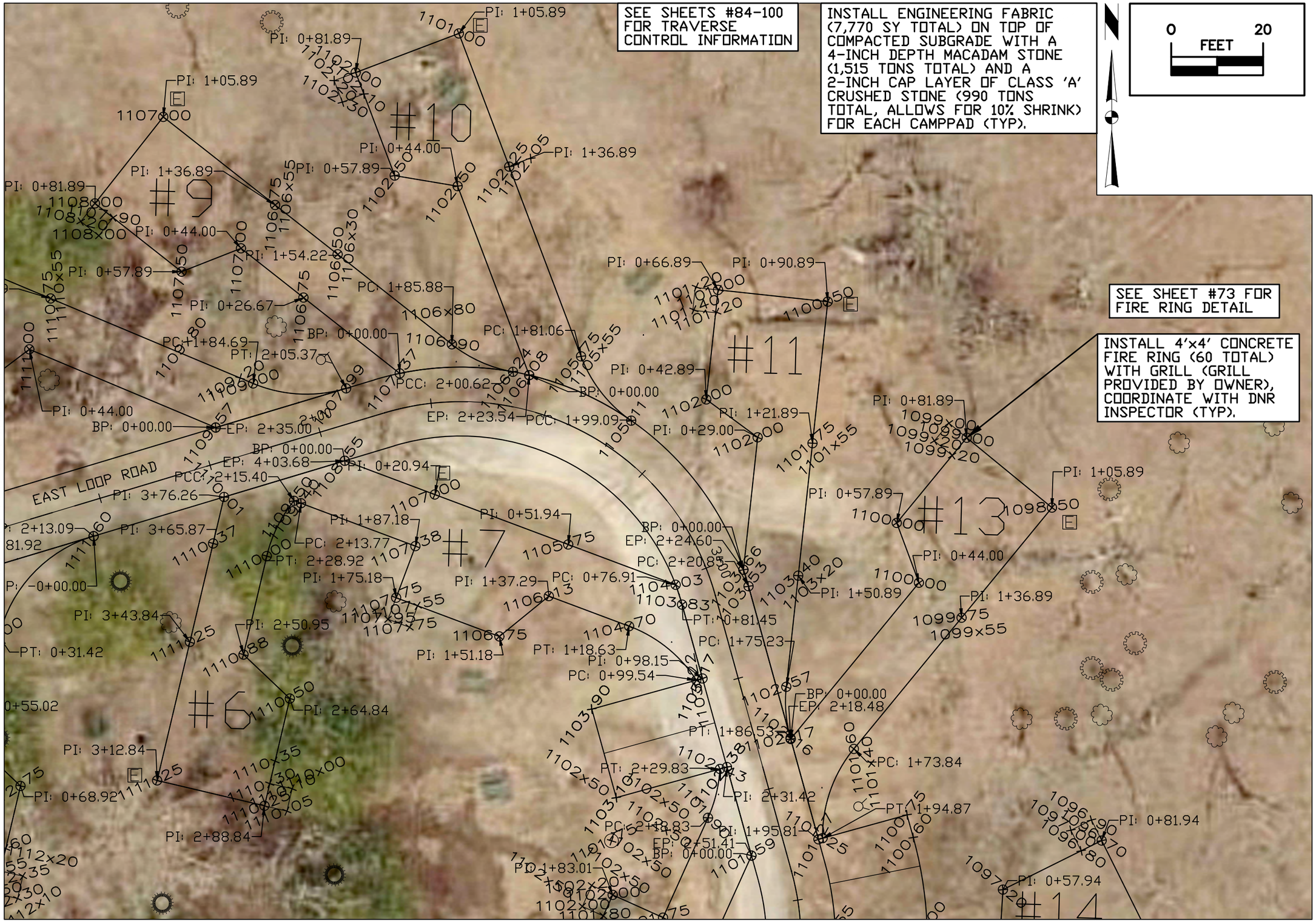
SEE SHEETS #84-100 FOR TRAVERSE CONTROL INFORMATION

INSTALL ENGINEERING FABRIC (7,770 SY TOTAL) ON TOP OF COMPACTED SUBGRADE WITH A 4-INCH DEPTH MACADAM STONE (1,515 TONS TOTAL) AND A 2-INCH CAP LAYER OF CLASS 'A' CRUSHED STONE (990 TONS TOTAL, ALLOWS FOR 10% SHRINK) FOR EACH CAMPPAD (TYP).

0 FEET 20

SEE SHEET #73 FOR FIRE RING DETAIL

INSTALL 4'x4' CONCRETE FIRE RING (60 TOTAL) WITH GRILL (GRILL PROVIDED BY OWNER), COORDINATE WITH DNR INSPECTOR (TYP).



SEE SHEET #75 FOR CONTINUATION

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY DATE	REVISION

DRAWN BY:

PROJECT NUMBER: 21-03-22-01

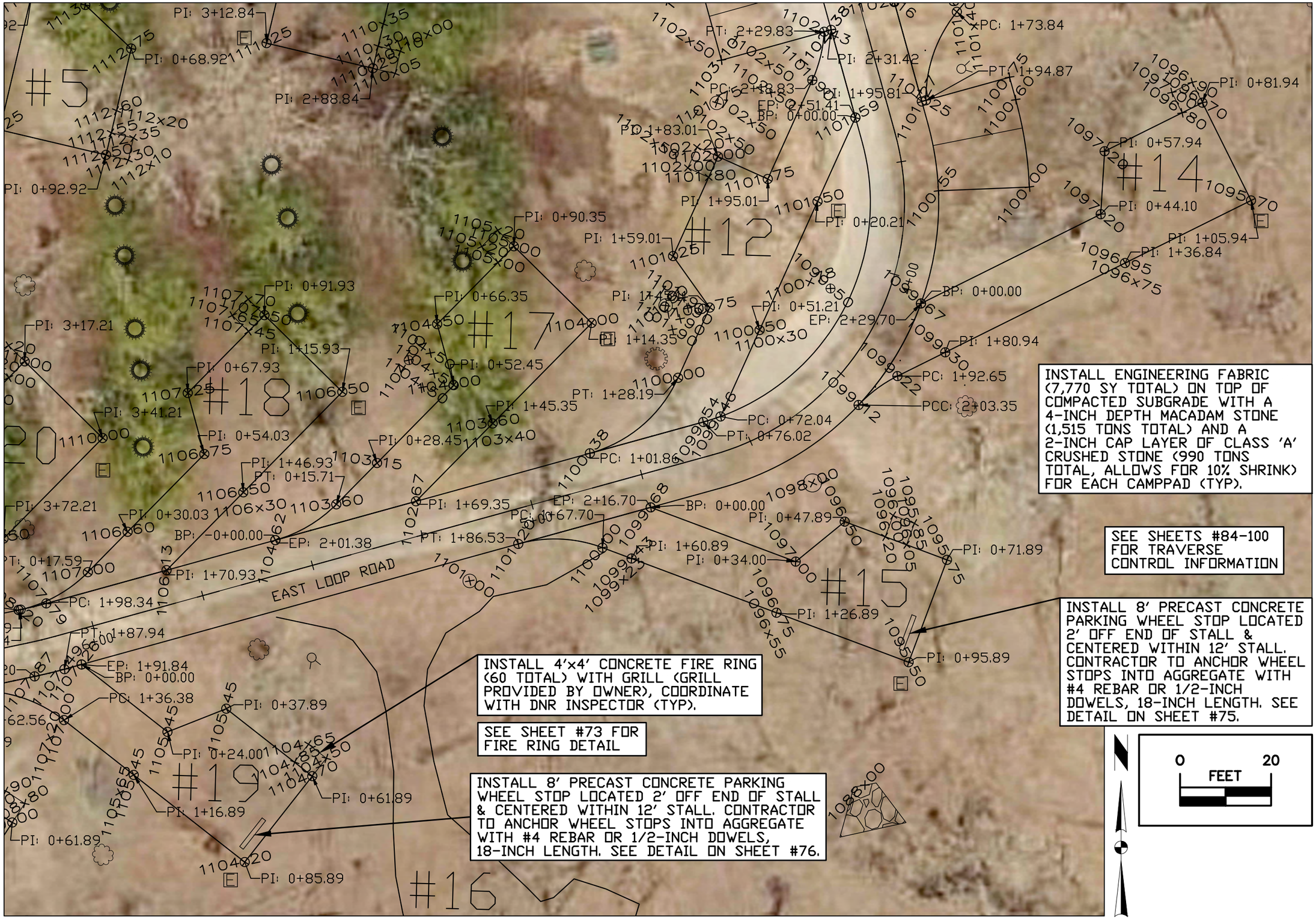
CHK'D BY:

DATE: 5/01/2021

SHEET No: 74

SEE SHEET #74 FOR CONTINUATION

SEE SHEET #76 FOR CONTINUATION



INSTALL ENGINEERING FABRIC (7,770 SY TOTAL) ON TOP OF COMPACTED SUBGRADE WITH A 4-INCH DEPTH MACADAM STONE (1,515 TONS TOTAL) AND A 2-INCH CAP LAYER OF CLASS 'A' CRUSHED STONE (990 TONS TOTAL, ALLOWS FOR 10% SHRINK) FOR EACH CAMPPAD (TYP).

SEE SHEETS #84-100 FOR TRAVERSE CONTROL INFORMATION

INSTALL 8' PRECAST CONCRETE PARKING WHEEL STOP LOCATED 2' OFF END OF STALL & CENTERED WITHIN 12' STALL. CONTRACTOR TO ANCHOR WHEEL STOPS INTO AGGREGATE WITH #4 REBAR OR 1/2-INCH DOWELS, 18-INCH LENGTH. SEE DETAIL ON SHEET #75.

INSTALL 4'x4' CONCRETE FIRE RING (60 TOTAL) WITH GRILL (GRILL PROVIDED BY OWNER), COORDINATE WITH DNR INSPECTOR (TYP).

SEE SHEET #73 FOR FIRE RING DETAIL

INSTALL 8' PRECAST CONCRETE PARKING WHEEL STOP LOCATED 2' OFF END OF STALL & CENTERED WITHIN 12' STALL. CONTRACTOR TO ANCHOR WHEEL STOPS INTO AGGREGATE WITH #4 REBAR OR 1/2-INCH DOWELS, 18-INCH LENGTH. SEE DETAIL ON SHEET #76.

0 FEET 20

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

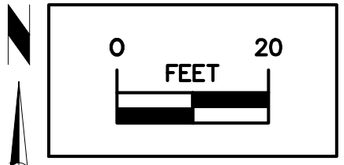
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

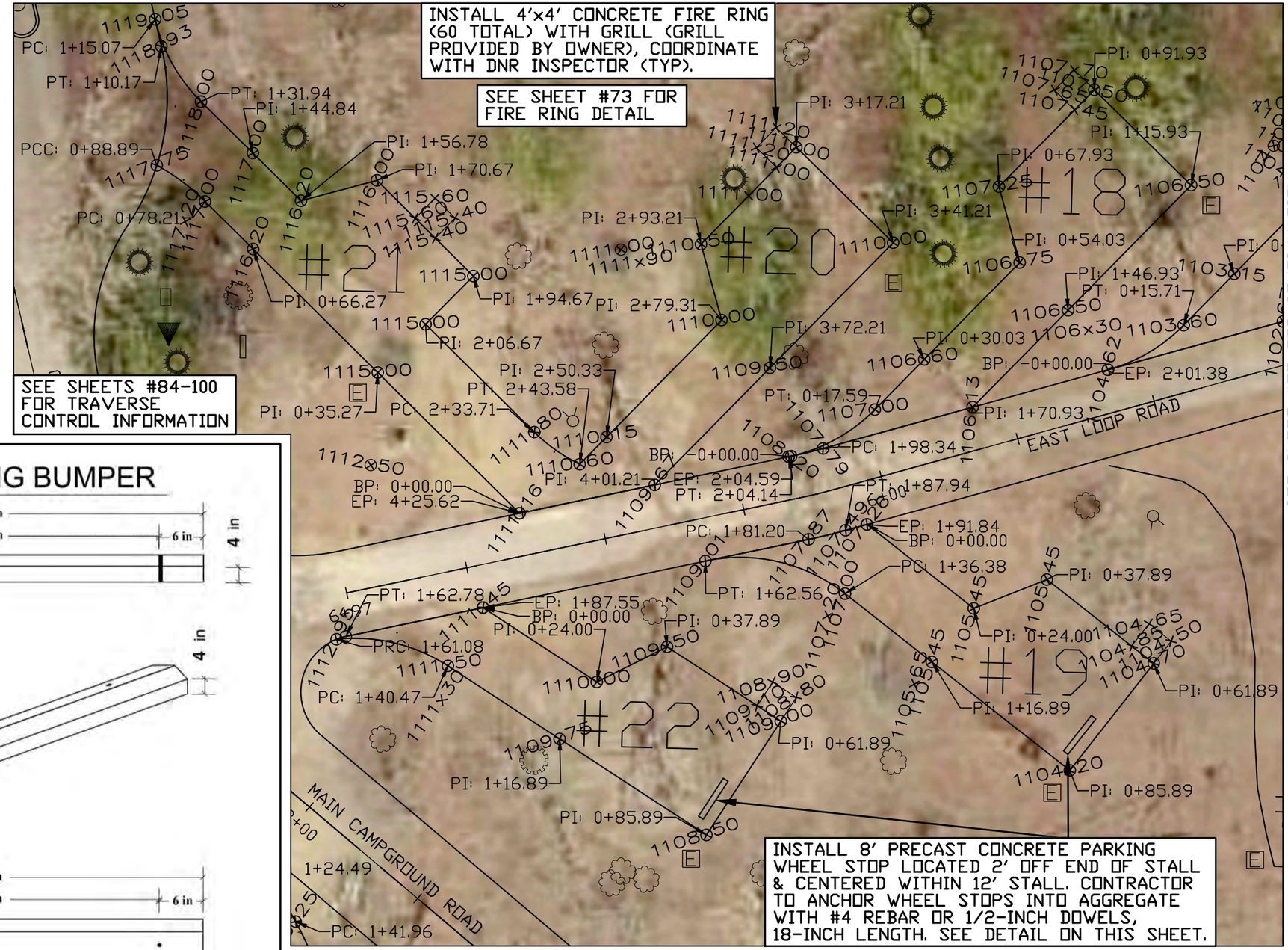
CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
CHK'D BY:
PROJECT NUMBER: 21-03-22-01
DATE: 5/01/2021
SHEET No: 75

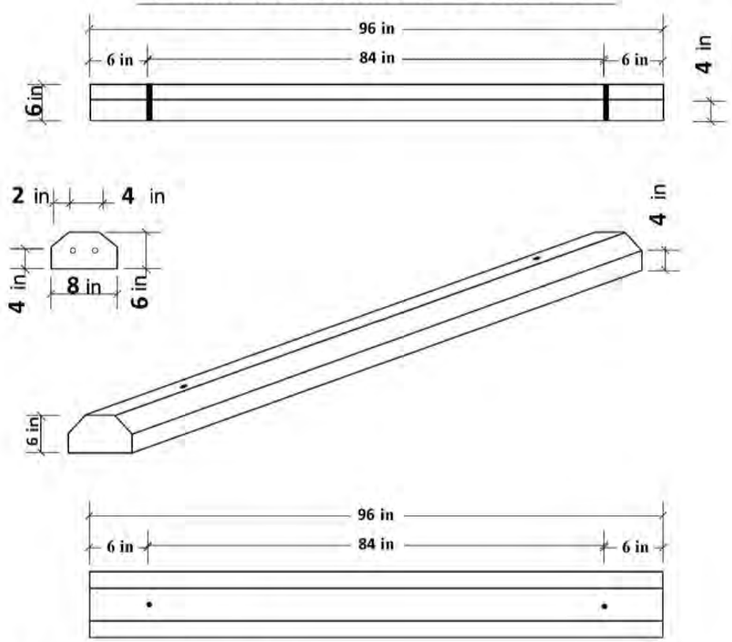




SEE SHEET #77 FOR CONTINUATION

INSTALL ENGINEERING FABRIC (7,770 SY TOTAL) ON TOP OF COMPACTED SUBGRADE WITH A 4-INCH DEPTH MACADAM STONE (1,515 TONS TOTAL) AND A 2-INCH CAP LAYER OF CLASS 'A' CRUSHED STONE (990 TONS TOTAL, ALLOWS FOR 10% SHRINK) FOR EACH CAMPPAD (TYP).

FLAT PARKING BUMPER



Air Entrained Concrete
4000 p.s.i. @ 28 days
Length: 8'0"
Height: 6" MIN
Width: 8" MIN

SEE SHEET #75 FOR CONTINUATION

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

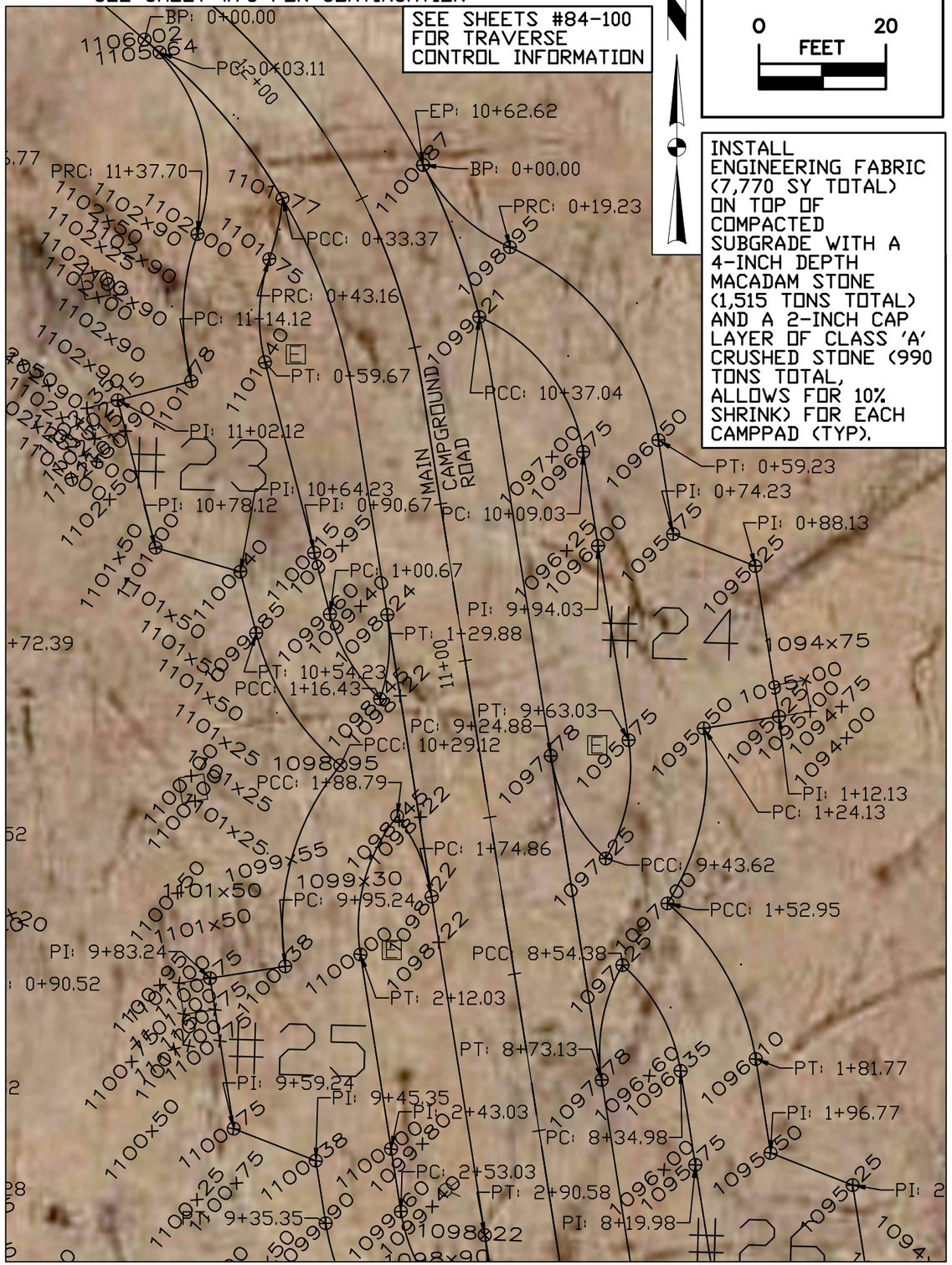
DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 76

SEE SHEET #76 FOR CONTINUATION

SEE SHEETS #84-100 FOR TRAVERSE CONTROL INFORMATION

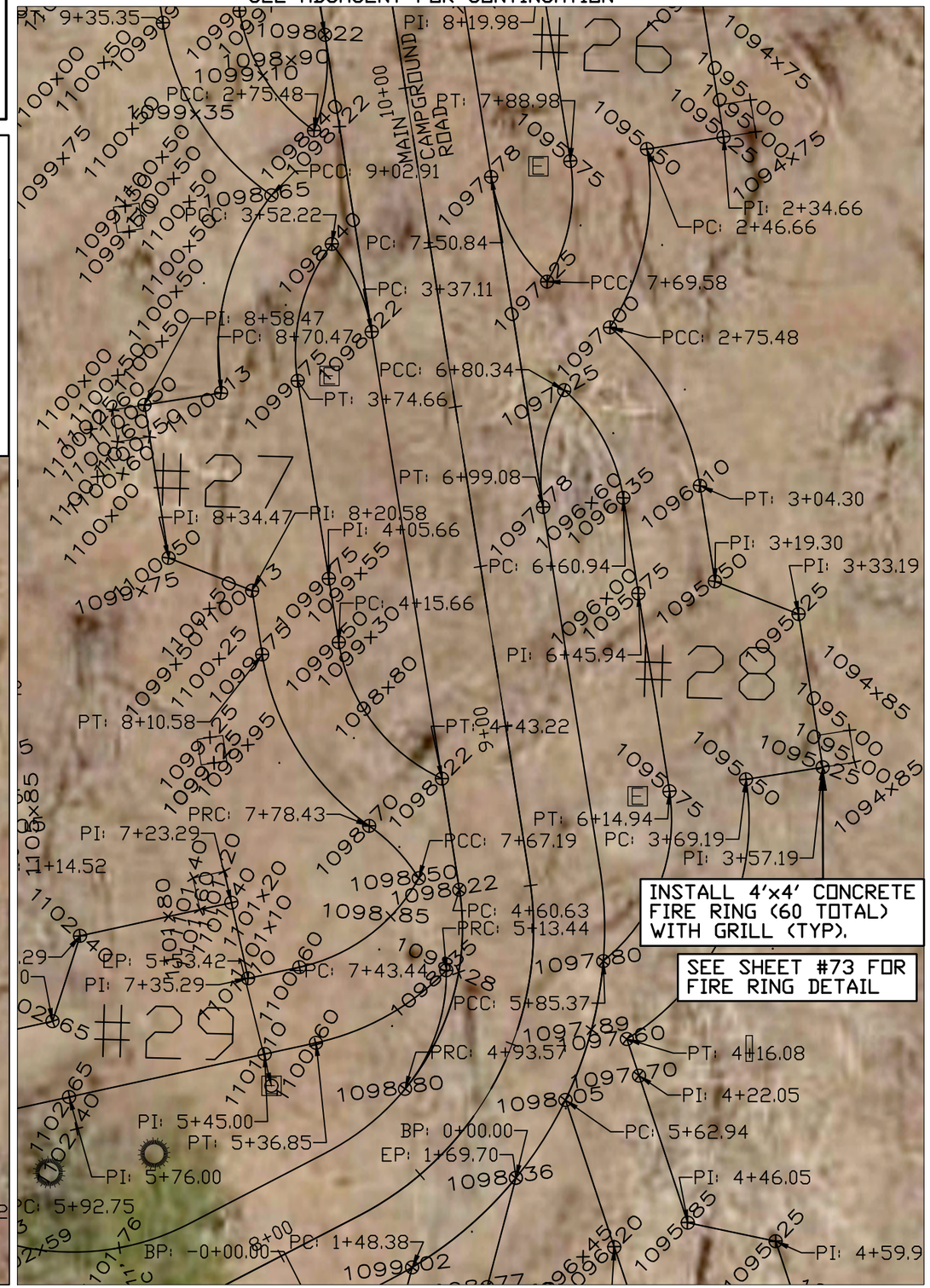
0 20
FEET

INSTALL ENGINEERING FABRIC (7,770 SY TOTAL) ON TOP OF COMPACTED SUBGRADE WITH A 4-INCH DEPTH MACADAM STONE (1,515 TONS TOTAL) AND A 2-INCH CAP LAYER OF CLASS 'A' CRUSHED STONE (990 TONS TOTAL, ALLOWS FOR 10% SHRINK) FOR EACH CAMPPAD (TYP).



SEE ADJACENT FOR CONTINUATION

SEE ADJACENT FOR CONTINUATION



INSTALL 4'x4' CONCRETE FIRE RING (60 TOTAL) WITH GRILL (TYP).

SEE SHEET #73 FOR FIRE RING DETAIL

SEE SHEET #78 FOR CONTINUATION

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

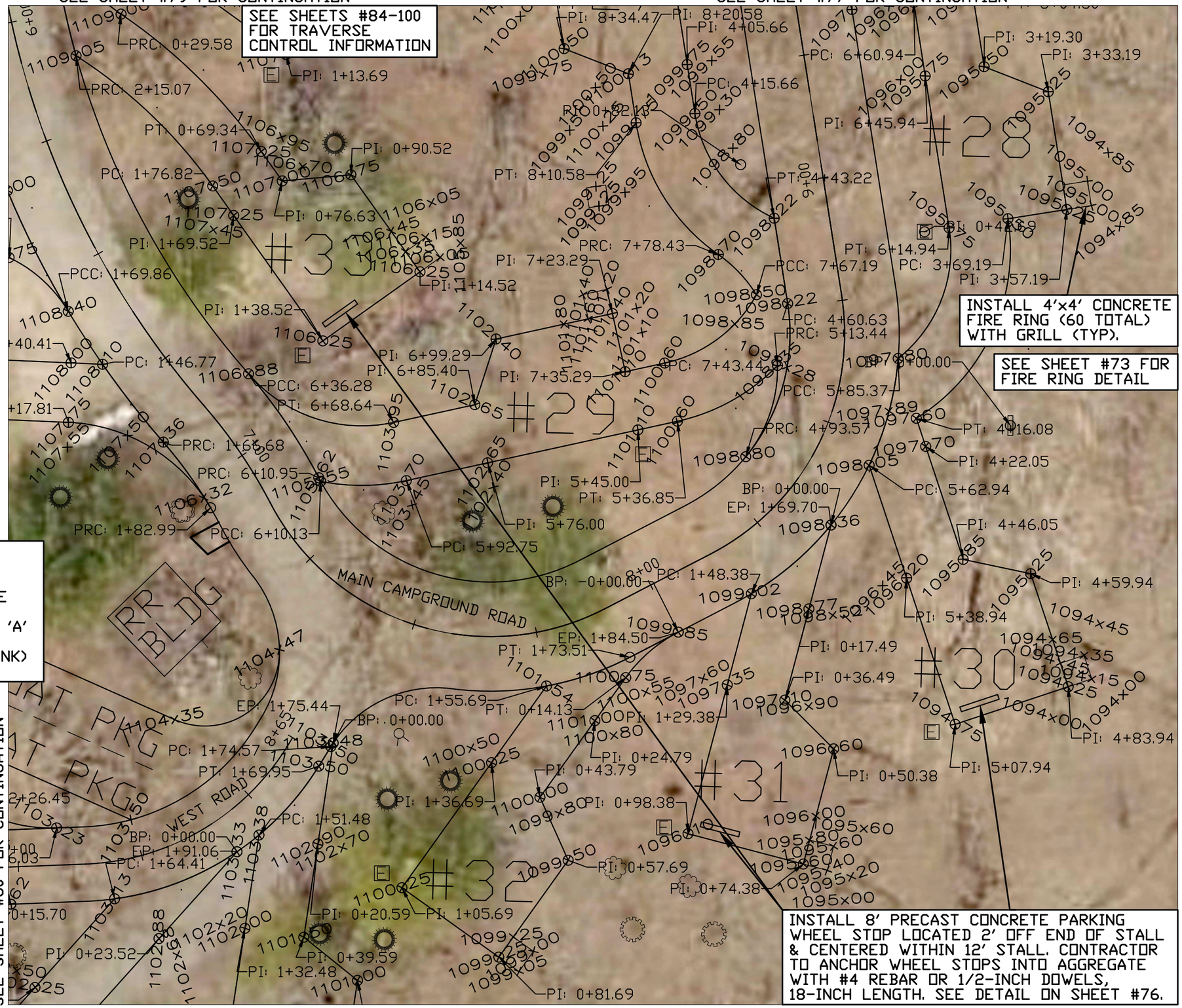
DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021

SHEET No: 77

SEE SHEET #79 FOR CONTINUATION

SEE SHEET #77 FOR CONTINUATION

0 20
FEET



SEE SHEET #80 FOR CONTINUATION

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

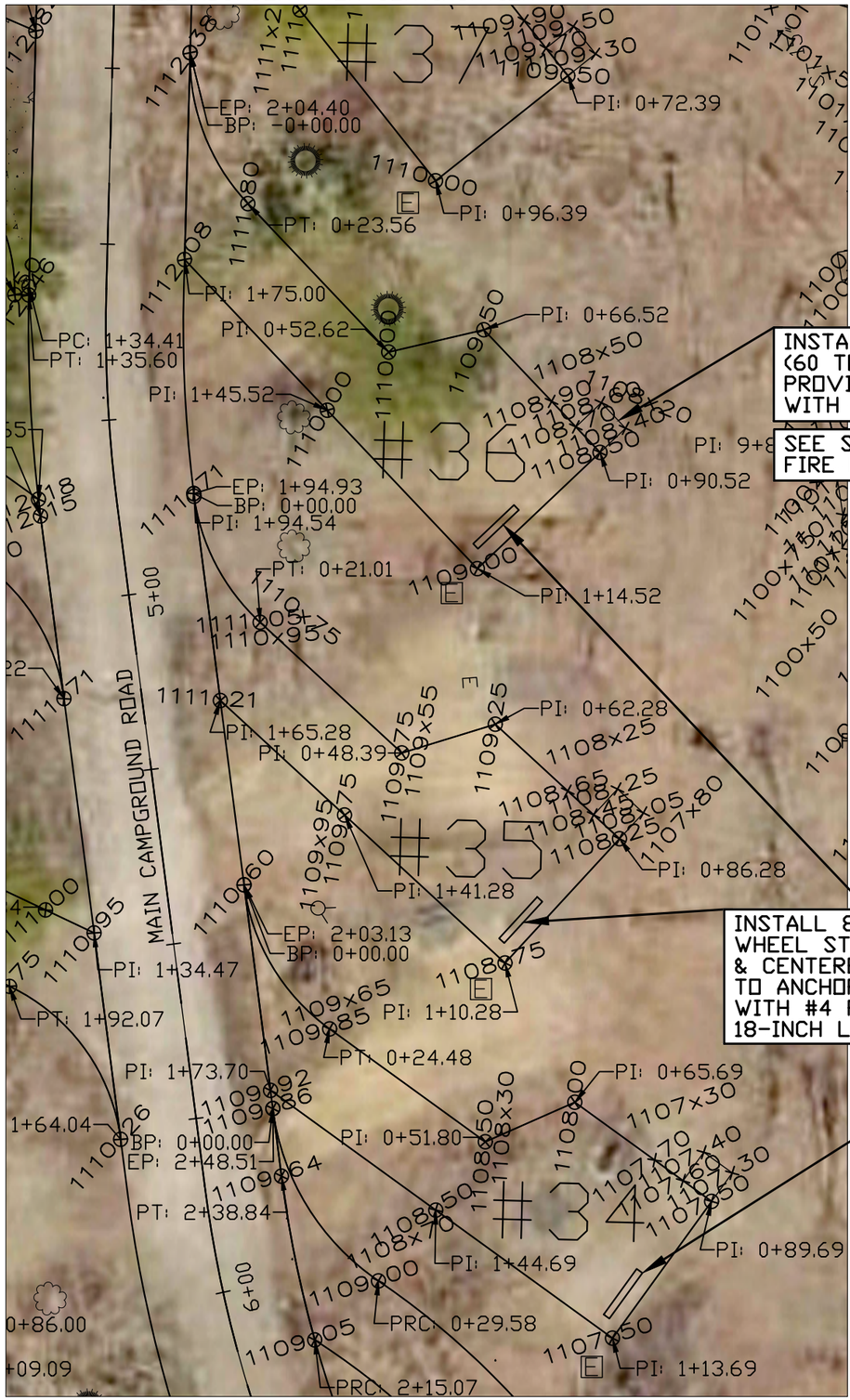
CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 78

SEE ADJACENT FOR CONTINUATION



SEE ADJACENT FOR CONTINUATION

0 20
FEET

INSTALL 4'x4' CONCRETE FIRE RING (60 TOTAL) WITH GRILL (GRILL PROVIDED BY OWNER), COORDINATE WITH DNR INSPECTOR (TYP).

SEE SHEET #73 FOR FIRE RING DETAIL

INSTALL 4'x4' CONCRETE FIRE RING (60 TOTAL) WITH ADA GRILL (GRILL PROVIDED BY OWNER), COORDINATE WITH DNR INSPECTOR (TYP).

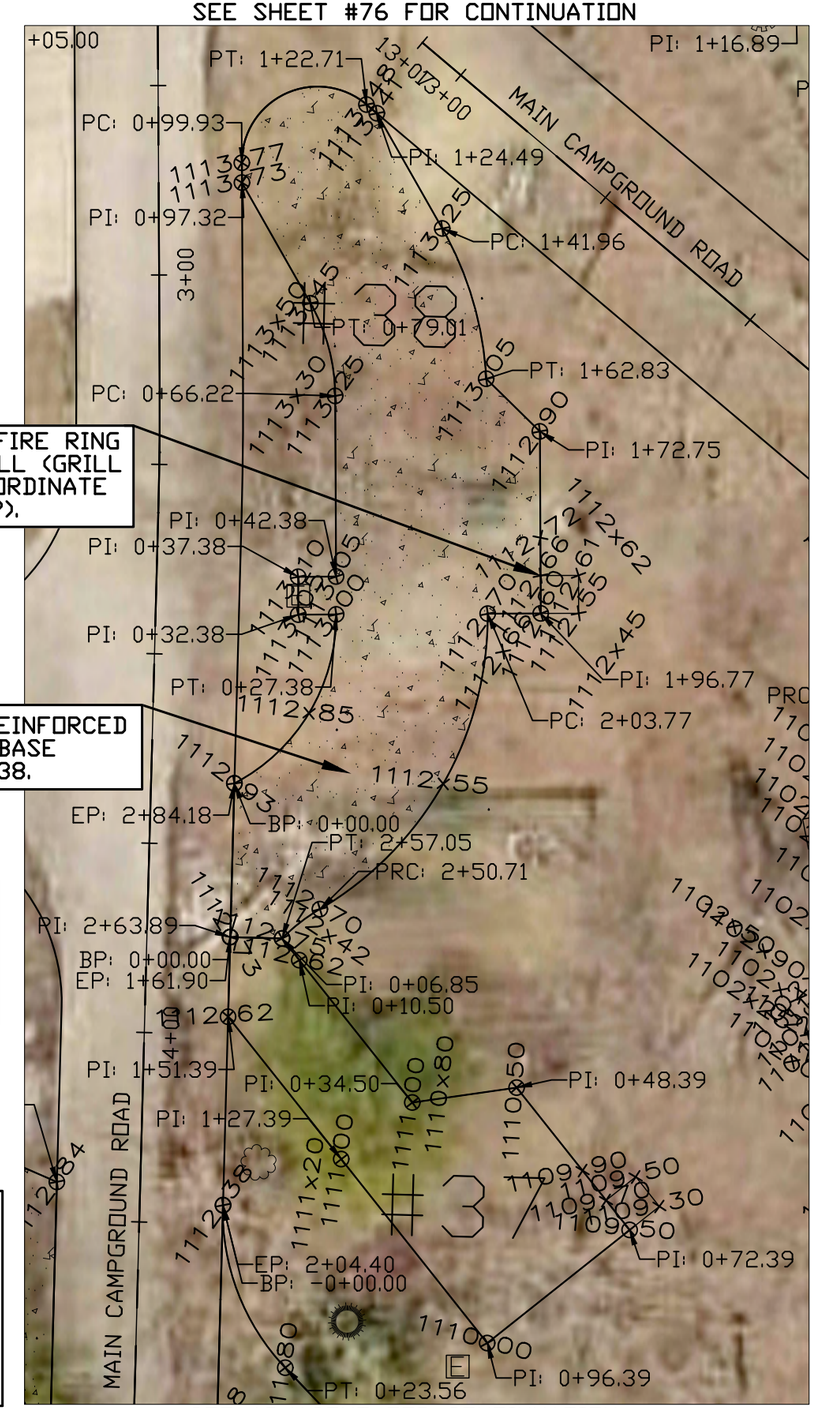
SEE SHEETS #84-100 FOR TRAVERSE CONTROL INFORMATION

INSTALL 277.7 SY 6-INCH NON-REINFORCED PCC WITH 6-INCH GRANULAR SUBBASE (87.5 TONS) FOR ADA CAMPPAD #38.

INSTALL 8' PRECAST CONCRETE PARKING WHEEL STOP LOCATED 2' OFF END OF STALL & CENTERED WITHIN 12' STALL. CONTRACTOR TO ANCHOR WHEEL STOPS INTO AGGREGATE WITH #4 REBAR OR 1/2-INCH DOWELS, 18-INCH LENGTH. SEE DETAIL ON SHEET #76.

INSTALL ENGINEERING FABRIC (7,770 SY TOTAL) ON TOP OF COMPACTED SUBGRADE WITH A 4-INCH DEPTH MACADAM STONE (1,515 TONS TOTAL) AND A 2-INCH CAP LAYER OF CLASS 'A' CRUSHED STONE (990 TONS TOTAL, ALLOWS FOR 10% SHRINK) FOR EACH CAMPPAD (TYP).

SEE SHEET #76 FOR CONTINUATION



SEE ADJACENT FOR CONTINUATION

SEE SHEET #78 FOR CONTINUATION

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY	DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 79

SEE SHEET #81 FOR CONTINUATION

SEE SHEET #78 FOR CONTINUATION

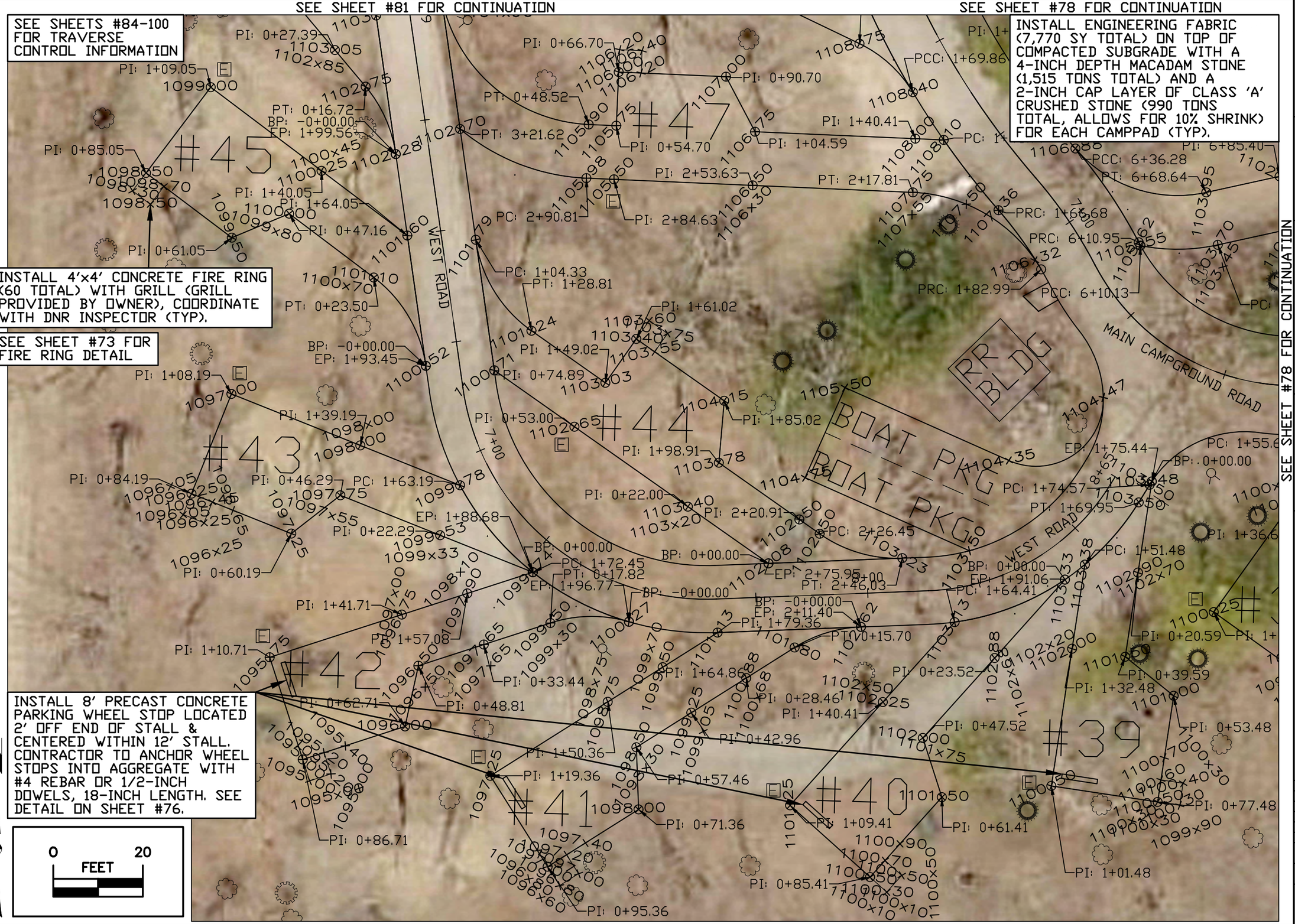
SEE SHEETS #84-100 FOR TRAVERSE CONTROL INFORMATION

INSTALL ENGINEERING FABRIC (7,770 SY TOTAL) ON TOP OF COMPACTED SUBGRADE WITH A 4-INCH DEPTH MACADAM STONE (1,515 TONS TOTAL) AND A 2-INCH CAP LAYER OF CLASS 'A' CRUSHED STONE (990 TONS TOTAL, ALLOWS FOR 10% SHRINK) FOR EACH CAMPPAD (TYP).

INSTALL 4'x4' CONCRETE FIRE RING (60 TOTAL) WITH GRILL (GRILL PROVIDED BY OWNER), COORDINATE WITH DNR INSPECTOR (TYP).

SEE SHEET #73 FOR FIRE RING DETAIL

INSTALL 8' PRECAST CONCRETE PARKING WHEEL STOP LOCATED 2' OFF END OF STALL & CENTERED WITHIN 12' STALL. CONTRACTOR TO ANCHOR WHEEL STOPS INTO AGGREGATE WITH #4 REBAR OR 1/2-INCH DOWELS, 18-INCH LENGTH. SEE DETAIL ON SHEET #76.



SEE SHEET #78 FOR CONTINUATION

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY: DATE	REVISION

DRAWN BY:

PROJECT NUMBER: 21-03-22-01

CHK'D BY:

DATE: 5/01/2021

SHEET No: 80

SEE SHEET #82 FOR CONTINUATION

INSTALL ENGINEERING FABRIC (7,770 SY TOTAL) ON TOP OF COMPACTED SUBGRADE WITH A 4-INCH DEPTH MACADAM STONE (1,515 TONS TOTAL) AND A 2-INCH CAP LAYER OF CLASS 'A' CRUSHED STONE (990 TONS TOTAL, ALLOWS FOR 10% SHRINK) FOR EACH CAMPPAD (TYP).

SEE SHEETS #84-100 FOR TRAVERSE CONTROL INFORMATION

INSTALL 4'x4' CONCRETE FIRE RING (60 TOTAL) WITH GRILL (GRILL PROVIDED BY OWNER), COORDINATE WITH DNR INSPECTOR (TYP).

SEE SHEET #73 FOR FIRE RING DETAIL

SEE SHEET #80 FOR CONTINUATION

0 20
FEET

SEE SHEET #79 FOR CONTINUATION

SEE SHEET #78 FOR CONTINUATION

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 81

SEE SHEET #83 FOR CONTINUATION

INSTALL 4'x4' CONCRETE FIRE RING (60 TOTAL) WITH GRILL (GRILL PROVIDED BY OWNER), COORDINATE WITH DNR INSPECTOR (TYP).

SEE SHEET #73 FOR FIRE RING DETAIL

SEE SHEETS #84-100 FOR TRAVERSE CONTROL INFORMATION

INSTALL ENGINEERING FABRIC (7,770 SY TOTAL) ON TOP OF COMPACTED SUBGRADE WITH A 4-INCH DEPTH MACADAM STONE (1,515 TONS TOTAL) AND A 2-INCH CAP LAYER OF CLASS 'A' CRUSHED STONE (990 TONS TOTAL, ALLOWS FOR 10% SHRINK) FOR EACH CAMPPAD (TYP).

INSTALL 4'x4' CONCRETE FIRE RING (60 TOTAL) WITH ADA GRILL (GRILL PROVIDED BY OWNER), COORDINATE WITH DNR INSPECTOR (TYP).

INSTALL 241.8 SY 6-INCH NON-REINFORCED PCC WITH 6-INCH GRANULAR SUBBASE (73.4 TONS) FOR ADA CAMPPAD #55.

SEE SHEET #81 FOR CONTINUATION

SEE SHEET #79 FOR CONTINUATION

N

0 20
FEET

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY: DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 82

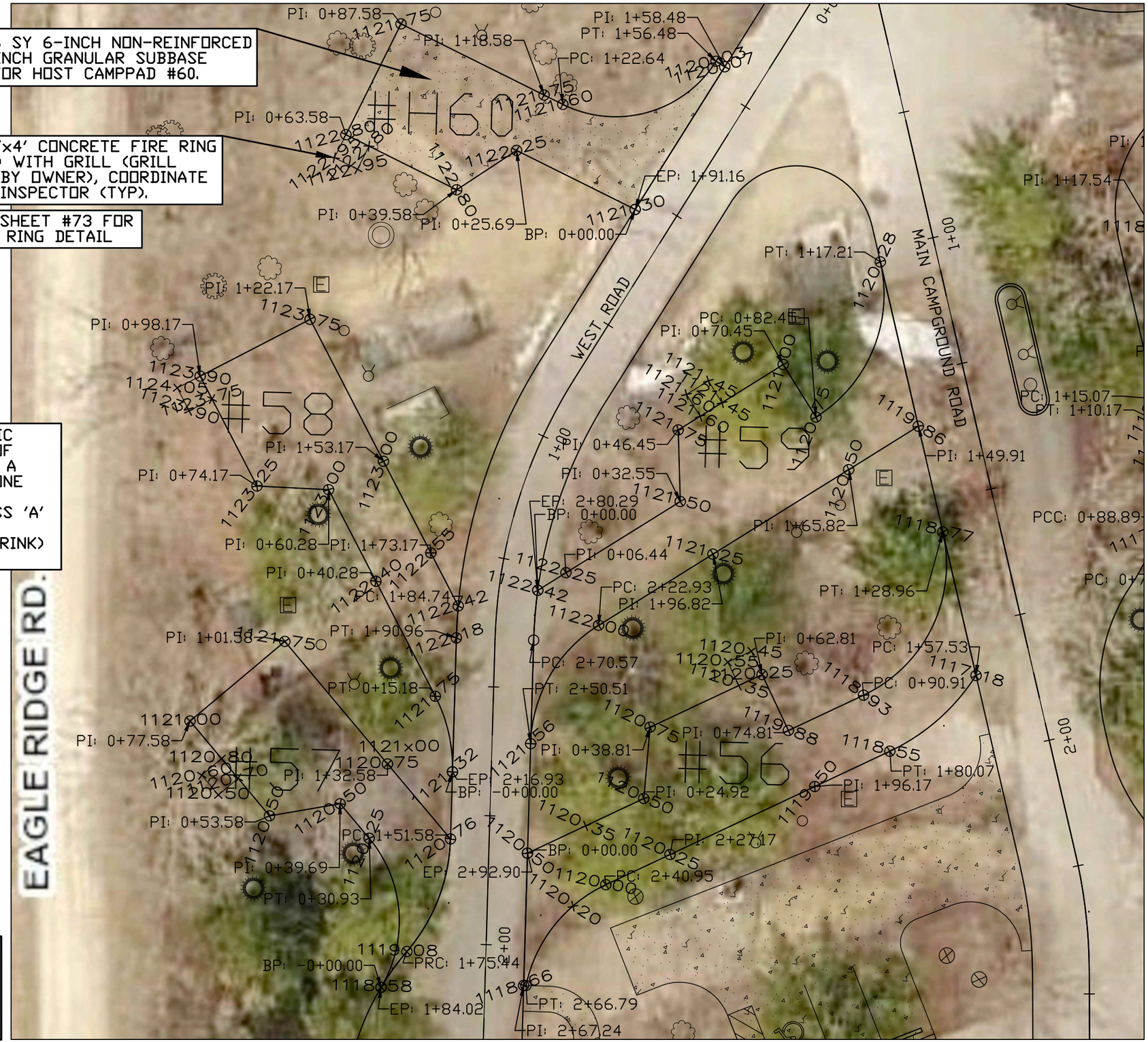
INSTALL 127.6 SY 6-INCH NON-REINFORCED PCC WITH 6-INCH GRANULAR SUBBASE (38.8 TONS) FOR HOST CAMPPAD #60.

INSTALL 4'x4' CONCRETE FIRE RING (60 TOTAL) WITH GRILL (GRILL PROVIDED BY OWNER), COORDINATE WITH DNR INSPECTOR (TYP).

SEE SHEET #73 FOR FIRE RING DETAIL

SEE SHEETS #84-100 FOR TRAVERSE CONTROL INFORMATION

INSTALL ENGINEERING FABRIC (7,770 SY TOTAL) ON TOP OF COMPACTED SUBGRADE WITH A 4-INCH DEPTH MACADAM STONE (1,515 TONS TOTAL) AND A 2-INCH CAP LAYER OF CLASS 'A' CRUSHED STONE (990 TONS TOTAL, ALLOWS FOR 10% SHRINK) FOR EACH CAMPPAD (TYP).



0 20
FEET

SEE SHEET #82 FOR CONTINUATION

SEE SHEET #73 FOR CONTINUATION

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
CHK'D BY:
PROJECT NUMBER: 21-03-22-01
DATE: 5/01/2021
SHEET No: 83

CAMPPAD TRAVERSE ALIGNMENT CONTROL

CAMPPAD #1

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	2.00'		S16° 43' 10"E	0+00.00'	0+02.00'				(5545863.5455',3834139.9341',1116.05')	(5545864.1209',3834138.0186',1116.05')	
2	Line	30.64'		S43° 16' 50"W	0+02.00'	0+32.64'				(5545864.1209',3834138.0186',1116.05')	(5545843.1143',3834115.7118',1117.25')	
3	Line	19.00'		S43° 16' 50"W	0+32.64'	0+51.64'				(5545843.1143',3834115.7118',1117.25')	(5545830.0884',3834101.8797',1117.55')	
4	Line	9.90'		S1° 43' 10"E	0+51.64'	0+61.54'				(5545830.0884',3834101.8797',1117.55')	(5545830.3855',3834091.9847',1117.55')	
5	Line	24.00'		S43° 16' 50"W	0+61.54'	0+85.54'				(5545830.3855',3834091.9847',1117.55')	(5545813.9318',3834074.5125',1117.75')	
6	Line	32.00'		N46° 43' 10"W	0+85.54'	1+17.54'				(5545813.9318',3834074.5125',1117.75')	(5545790.6356',3834096.4508',1118.25')	
7	Line	15.00'		N43° 16' 50"E	1+17.54'	1+32.54'				(5545790.6356',3834096.4508',1118.25')	(5545800.9192',3834107.3709',1118.10')	
8	Line	5.00'		S46° 43' 10"E	1+32.54'	1+37.54'				(5545800.9192',3834107.3709',1118.10')	(5545804.5592',3834103.9430',1118.05')	
9	Line	16.00'		N43° 16' 50"E	1+37.54'	1+53.54'				(5545804.5592',3834103.9430',1118.05')	(5545815.5283',3834115.5911',1117.80')	
10	Line	19.00'		N43° 16' 50"E	1+53.54'	1+72.54'				(5545815.5283',3834115.5911',1117.80')	(5545828.5542',3834129.4232',1117.57')	
11	Line	36.54'		N73° 16' 50"E	1+72.54'	2+09.08'				(5545828.5542',3834129.4232',1117.57')	(5545863.5455',3834139.9341',1116.05')	

CAMPPAD #2

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	15.26'		N48° 29' 47"W	0+00.00'	0+15.26'				(5545816.1629',3834141.3829',1117.56')	(5545804.7337',3834151.4958',1117.55')	
2	Line	9.96'		S86° 30' 13"W	0+15.26'	0+25.22'				(5545804.7337',3834151.4958',1117.55')	(5545794.7901',3834150.8883',1117.60')	
3	Line	23.96'		N48° 23' 25"W	0+25.22'	0+49.18'				(5545794.7901',3834150.8883',1117.60')	(5545776.8787',3834166.7961',1117.60')	
4	Line	32.00'		N41° 30' 13"E	0+49.18'	0+81.18'				(5545776.8787',3834166.7961',1117.60')	(5545798.0840',3834190.7613',1117.20')	
5	Line	5.00'		S48° 29' 47"E	0+81.18'	0+86.18'				(5545798.0840',3834190.7613',1117.20')	(5545801.8286',3834187.4480',1117.20')	
6	Line	5.00'		S41° 30' 13"W	0+86.18'	0+91.18'				(5545801.8286',3834187.4480',1117.20')	(5545798.5153',3834183.7034',1117.25')	
7	Line	26.00'		S48° 29' 47"E	0+91.18'	1+17.18'				(5545798.5153',3834183.7034',1117.25')	(5545817.9871',3834166.4741',1117.25')	
8	Line	11.40'		S48° 29' 47"E	1+17.18'	1+28.58'				(5545817.9871',3834166.4741',1117.25')	(5545826.5236',3834158.9207',1117.25')	
9	Curve	25.40'	25.00'		1+28.58'	1+53.98'	58.2230 (d)	24.33'	S77° 36' 29"E	(5545826.5236',3834158.9207',1117.25')	(5545850.2824',3834153.7004',1116.12')	(5545843.0903',3834177.6436')
10	Line	2.00'		S16° 43' 10"E	1+53.98'	1+55.98'				(5545850.2824',3834153.7004',1116.12')	(5545850.8578',3834151.7850',1116.16')	
11	Line	36.22'		S73° 18' 37"W	1+55.98'	1+92.20'				(5545850.8578',3834151.7850',1116.16')	(5545816.1629',3834141.3829',1117.56')	

CAMPPAD #3

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	31.42'	30.00'		0+00.00'	0+31.42'	60.0000 (d)	30.00'	S43° 16' 50"W	(5545889.9006',3834147.8507',1114.61')	(5545869.3335',3834126.0106',1116.10')	(5545898.5312',3834119.1190')
2	Line	23.61'		S13° 16' 50"W	0+31.42'	0+55.02'				(5545869.3335',3834126.0106',1116.10')	(5545863.9103',3834103.0342',1115.75')	
3	Line	13.89'		S46° 27' 47"E	0+55.02'	0+68.92'				(5545863.9103',3834103.0342',1115.75')	(5545873.9814',3834093.4648',1115.50')	
4	Line	24.00'		S13° 16' 50"W	0+68.92'	0+92.92'				(5545873.9814',3834093.4648',1115.50')	(5545868.4681',3834070.1066',1115.50')	
5	Line	24.00'		N76° 43' 10"W	0+92.92'	1+16.92'				(5545868.4681',3834070.1066',1115.50')	(5545845.1100',3834075.6199',1116.00')	
6	Line	31.00'		N13° 16' 50"E	1+16.92'	1+47.92'				(5545845.1100',3834075.6199',1116.00')	(5545852.2313',3834105.7908',1116.00')	
7	Line	26.88'		N13° 16' 50"E	1+47.92'	1+74.79'				(5545852.2313',3834105.7908',1116.00')	(5545858.4055',3834131.9495',1116.45')	
8	Line	8.34'		N43° 16' 50"E	1+74.79'	1+83.13'				(5545858.4055',3834131.9495',1116.45')	(5545864.1209',3834138.0186',1116.05')	
9	Line	2.00'		N16° 43' 10"W	1+83.13'	1+85.13'				(5545864.1209',3834138.0186',1116.05')	(5545863.5455',3834139.9341',1116.05')	
10	Line	27.52'		N73° 16' 50"E	1+85.13'	2+12.65'				(5545863.5455',3834139.9341',1116.05')	(5545889.9006',3834147.8507',1114.61')	

CAMPPAD #4

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	24.00'		N51° 26' 28"W	0+00.00'	0+24.00'				(5545882.7379',3834161.3613',1114.47')	(5545863.9707',3834176.3209',1114.75')	
2	Line	13.89'		S68° 48' 55"W	0+24.00'	0+37.89'				(5545863.9707',3834176.3209',1114.75')	(5545851.0171',3834171.3005',1114.25')	
3	Line	24.00'		N51° 26' 28"W	0+37.89'	0+61.89'				(5545851.0171',3834171.3005',1114.25')	(5545832.2498',3834186.2602',1115.75')	
4	Line	24.00'		N38° 33' 32"E	0+61.89'	0+85.89'				(5545832.2498',3834186.2602',1115.75')	(5545847.2095',3834205.0274',1114.75')	
5	Line	31.00'		S51° 26' 28"E	0+85.89'	1+16.89'				(5545847.2095',3834205.0274',1114.75')	(5545871.4505',3834185.7045',1114.50')	
6	Line	16.61'		S51° 26' 28"E	1+16.89'	1+33.50'				(5545871.4505',3834185.7045',1114.50')	(5545884.4360',3834175.3536',1114.00')	
7	Curve	28.94'	30.00'		1+33.50'	1+62.44'	55.2783 (d)	27.83'	S79° 04' 49"E	(5545884.4360',3834175.3536',1114.00')	(5545911.7661',3834170.0809',1112.85')	(5545903.1356',3834198.8126')
8	Line	30.31'		S73° 16' 50"W	1+62.44'	1+92.75'				(5545911.7661',3834170.0809',1112.85')	(5545882.7379',3834161.3613',1114.47')	

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY	DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 84

CAMPPAD TRAVERSE ALIGNMENT CONTROL (CONT.)

CAMPPAD #5

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	31.42'	30.00'		0+00.00'	0+31.42'	60.0000 (d)	30.00'	S43° 16' 50"W	(5545943.7719',3834164.0328',1111.60')	(5545923.2047',3834142.1926',1113.00')	(5545952.4024',3834135.3011')
2	Line	23.61'		S13° 16' 50"W	0+31.42'	0+55.02'				(5545923.2047',3834142.1926',1113.00')	(5545917.7816',3834119.2163',1113.00')	
3	Line	13.89'		S46° 27' 47"E	0+55.02'	0+68.92'				(5545917.7816',3834119.2163',1113.00')	(5545927.8526',3834109.6469',1112.75')	
4	Line	24.00'		S13° 16' 50"W	0+68.92'	0+92.92'				(5545927.8526',3834109.6469',1112.75')	(5545922.3394',3834086.2887',1112.50')	
5	Line	24.00'		N76° 43' 10"W	0+92.92'	1+16.92'				(5545922.3394',3834086.2887',1112.50')	(5545898.9812',3834091.8020',1113.25')	
6	Line	31.00'		N13° 16' 50"E	1+16.92'	1+47.92'				(5545898.9812',3834091.8020',1113.25')	(5545906.1025',3834121.9729',1113.25')	
7	Line	34.00'		N13° 16' 50"E	1+47.92'	1+81.92'				(5545906.1025',3834121.9729',1113.25')	(5545913.9130',3834155.0637',1113.27')	
8	Line	31.18'		N73° 16' 50"E	1+81.92'	2+13.09'				(5545913.9130',3834155.0637',1113.27')	(5545943.7719',3834164.0328',1111.60')	

CAMPPADS #6 & 7

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	20.94'		S69° 26' 40"E	0+00.00'	0+20.94'				(5545998.4172',3834180.4474',1108.55')	(5546018.0266',3834173.0941',1107.00')	
2	Line	31.00'		S69° 26' 40"E	0+20.94'	0+51.94'				(5546018.0266',3834173.0941',1107.00')	(5546047.0529',3834162.2096',1105.75')	
3	Line	24.97'		S69° 26' 40"E	0+51.94'	0+76.91'				(5546047.0529',3834162.2096',1105.75')	(5546070.4342',3834153.4418',1104.03')	
4	Curve	4.54'	50.00'		0+76.91'	0+81.45'	5.2019 (d)	4.54'	S18° 02' 17"E	(5546070.4342',3834153.4418',1104.03')	(5546071.8393',3834149.1269',1103.83')	(5546023.6432',3834135.8178')
5	Line	16.69'		S15° 26' 14"E	0+81.45'	0+98.15'				(5546071.8393',3834149.1269',1103.83')	(5546076.2824',3834133.0373',1103.17')	
6	Line	1.40'		S74° 33' 46"W	0+98.15'	0+99.54'				(5546076.2824',3834133.0373',1103.17')	(5546074.9370',3834132.6658',1103.22')	
7	Curve	19.09'	30.00'		0+99.54'	1+18.63'	36.4614 (d)	18.77'	N51° 12' 50"W	(5546074.9370',3834132.6658',1103.22')	(5546060.3055',3834144.4240',1104.70')	(5546049.7721',3834116.3340')
8	Line	18.65'		N69° 26' 40"W	1+18.63'	1+37.29'				(5546060.3055',3834144.4240',1104.70')	(5546042.8395',3834150.9736',1106.13')	
9	Line	13.89'		S50° 48' 43"W	1+37.29'	1+51.18'				(5546042.8395',3834150.9736',1106.13')	(5546032.0718',3834142.1954',1106.75')	
10	Line	24.00'		N69° 26' 40"W	1+51.18'	1+75.18'				(5546032.0718',3834142.1954',1106.75')	(5546009.5998',3834150.6221',1107.75')	
11	Line	12.00'		N20° 33' 20"E	1+75.18'	1+87.18'				(5546009.5998',3834150.6221',1107.75')	(5546013.8132',3834161.8581',1107.38')	
12	Line	26.59'		N69° 26' 40"W	1+87.18'	2+13.77'				(5546013.8132',3834161.8581',1107.38')	(5545988.9149',3834171.1947',1109.40')	
13	Curve	1.63'	30.00'		2+13.77'	2+15.40'	3.1065 (d)	1.63'	N70° 59' 52"W	(5545988.9149',3834171.1947',1109.40')	(5545987.3771',3834171.7243',1109.50')	(5545978.3814',3834143.1047')
14	Curve	13.53'	30.00'		2+15.40'	2+28.92'	25.8316 (d)	13.41'	S26° 11' 47"W	(5545987.3771',3834171.7243',1109.50')	(5545981.4568',3834159.6907',1110.00')	(5546010.6545',3834152.7991')
15	Line	22.03'		S13° 16' 50"W	2+28.92'	2+50.95'				(5545981.4568',3834159.6907',1110.00')	(5545976.3962',3834138.2504',1110.88')	
16	Line	13.89'		S46° 27' 47"E	2+50.95'	2+64.84'				(5545976.3962',3834138.2504',1110.88')	(5545986.4673',3834128.6810',1110.50')	
17	Line	24.00'		S13° 16' 50"W	2+64.84'	2+88.84'				(5545986.4673',3834128.6810',1110.50')	(5545980.9540',3834105.3228',1110.25')	
18	Line	24.00'		N76° 43' 10"W	2+88.84'	3+12.84'				(5545980.9540',3834105.3228',1110.25')	(5545957.5958',3834110.8361',1111.25')	
19	Line	31.00'		N13° 16' 50"E	3+12.84'	3+43.84'				(5545957.5958',3834110.8361',1111.25')	(5545964.7172',3834141.0071',1111.25')	
20	Line	22.03'		N13° 16' 50"E	3+43.84'	3+65.87'				(5545964.7172',3834141.0071',1111.25')	(5545969.7777',3834162.4473',1110.37')	
21	Line	10.39'		N13° 16' 50"E	3+65.87'	3+76.26'				(5545969.7777',3834162.4473',1110.37')	(5545972.1650',3834172.5617',1110.01')	
22	Line	27.41'		N73° 16' 50"E	3+76.26'	4+03.68'				(5545972.1650',3834172.5617',1110.01')	(5545998.4172',3834180.4474',1108.55')	

CAMPPAD #8

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	44.00'		N67° 14' 02"W	0+00.00'	0+44.00'				(5545970.3405',3834187.6757',1109.57')	(5545929.7682',3834204.7025',1111.00')	
2	Line	13.89'		S53° 01' 21"W	0+44.00'	0+57.89'				(5545929.7682',3834204.7025',1111.00')	(5545918.6699',3834196.3462',1111.50')	
3	Line	24.00'		N67° 14' 02"W	0+57.89'	0+81.89'				(5545918.6699',3834196.3462',1111.50')	(5545896.5397',3834205.6334',1111.50')	
4	Line	24.00'		N22° 45' 58"E	0+81.89'	1+05.89'				(5545896.5397',3834205.6334',1111.50')	(5545905.8270',3834227.7636',1110.50')	
5	Line	31.00'		S67° 14' 02"E	1+05.89'	1+36.89'				(5545905.8270',3834227.7636',1110.50')	(5545934.4119',3834215.7676',1107.75')	
6	Line	47.80'		S67° 14' 02"E	1+36.89'	1+84.69'				(5545934.4119',3834215.7676',1107.75')	(5545978.4860',3834197.2712',1109.00')	
7	Curve	20.67'	30.00'		1+84.69'	2+05.37'	39.4857 (d)	20.27'	S86° 58' 36"E	(5545978.4860',3834197.2712',1109.00')	(5545998.7258',3834196.2022',1107.99')	(5545990.0952',3834224.9340')
8	Line	29.64'		S73° 16' 50"W	2+05.37'	2+35.00'				(5545998.7258',3834196.2022',1107.99')	(5545970.3405',3834187.6757',1109.57')	

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:

CHK'D BY:

PROJECT NUMBER: 21-03-22-01

DATE: 5/01/2021

SHEET No: 85

CAMPPAD TRAVERSE ALIGNMENT CONTROL (CONT.)

CAMPPAD #9

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	26.67'		N51° 44' 26"W	0+00.00'	0+26.67'				(5546010.3879',3834199.4519',1107.37')	(5545989.4434',3834215.9689',1106.75')	
2	Line	17.33'		N51° 44' 26"W	0+26.67'	0+44.00'				(5545989.4434',3834215.9689',1106.75')	(5545975.8387',3834226.6976',1107.00')	
3	Line	13.89'		S68° 30' 57"W	0+44.00'	0+57.89'				(5545975.8387',3834226.6976',1107.00')	(5545962.9116',3834221.6095',1107.50')	
4	Line	24.00'		N51° 44' 26"W	0+57.89'	0+81.89'				(5545962.9116',3834221.6095',1107.50')	(5545944.0664',3834236.4709',1108.00')	
5	Line	24.00'		N38° 15' 34"E	0+81.89'	1+05.89'				(5545944.0664',3834236.4709',1108.00')	(5545958.9278',3834255.3161',1107.00')	
6	Line	31.00'		S51° 44' 26"E	1+05.89'	1+36.89'				(5545958.9278',3834255.3161',1107.00')	(5545983.2694',3834236.1201',1106.75')	
7	Line	17.33'		S51° 44' 26"E	1+36.89'	1+54.22'				(5545983.2694',3834236.1201',1106.75')	(5545996.8741',3834225.3915',1106.50')	
8	Line	31.66'		S51° 44' 26"E	1+54.22'	1+85.88'				(5545996.8741',3834225.3915',1106.50')	(5546021.7323',3834205.7881',1106.90')	
9	Curve	14.74'	30.00'		1+85.88'	2+00.62'	28.1558 (d)	14.59'	S65° 49' 06"E	(5546021.7323',3834205.7881',1106.90')	(5546035.0461',3834199.8098',1106.24')	(5546040.3090',3834229.3446')
10	Curve	24.81'	65.00'		2+00.62'	2+25.43'	21.8704 (d)	24.66'	S89° 10' 07"W	(5546035.0461',3834199.8098',1106.24')	(5546010.3879',3834199.4519',1107.37')	(5546023.6432',3834135.8178')

CAMPPAD #10

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	44.00'		N20° 43' 42"W	0+00.00'	0+44.00'				(5546038.5709',3834199.0805',1106.08')	(5546022.9976',3834240.2323',1102.50')	
2	Line	13.89'		N80° 28' 19"W	0+44.00'	0+57.89'				(5546022.9976',3834240.2323',1102.50')	(5546009.2968',3834242.5319',1102.50')	
3	Line	24.00'		N20° 43' 42"W	0+57.89'	0+81.89'				(5546009.2968',3834242.5319',1102.50')	(5546000.8023',3834264.9784',1102.00')	
4	Line	24.00'		N69° 16' 18"E	0+81.89'	1+05.89'				(5546000.8023',3834264.9784',1102.00')	(5546023.2487',3834273.4729',1101.00')	
5	Line	31.00'		S20° 43' 42"E	1+05.89'	1+36.89'				(5546023.2487',3834273.4729',1101.00')	(5546034.2208',3834244.4796',1102.25')	
6	Line	44.16'		S20° 43' 42"E	1+36.89'	1+81.06'				(5546034.2208',3834244.4796',1102.25')	(5546049.8521',3834203.1747',1105.75')	
7	Curve	18.03'	30.00'		1+81.06'	1+99.09'	34.4355 (d)	17.76'	S37° 56' 46"E	(5546049.8521',3834203.1747',1105.75')	(5546060.7732',3834189.1692',1105.11')	(5546077.9101',3834213.7928')
8	Curve	24.46'	65.00'		1+99.09'	2+23.54'	21.5592 (d)	24.31'	N65° 56' 37"W	(5546060.7732',3834189.1692',1105.11')	(5546038.5709',3834199.0805',1106.08')	(5546023.6432',3834135.8178')

CAMPPAD #11

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	29.00'		N6° 08' 15"E	0+00.00'	0+29.00'				(5546085.1945',3834156.7089',1103.66')	(5546088.2951',3834185.5427',1102.00')	
2	Line	13.89'		N53° 36' 22"W	0+29.00'	0+42.89'				(5546088.2951',3834185.5427',1102.00')	(5546077.1123',3834193.7855',1102.00')	
3	Line	24.00'		N6° 08' 15"E	0+42.89'	0+66.89'				(5546077.1123',3834193.7855',1102.00')	(5546079.6782',3834217.6480',1101.00')	
4	Line	24.00'		S83° 51' 45"E	0+66.89'	0+90.89'				(5546079.6782',3834217.6480',1101.00')	(5546103.5407',3834215.0820',1100.50')	
5	Line	31.00'		S6° 08' 15"W	0+90.89'	1+21.89'				(5546103.5407',3834215.0820',1100.50')	(5546100.2263',3834184.2597',1101.75')	
6	Line	29.00'		S6° 08' 15"W	1+21.89'	1+50.89'				(5546100.2263',3834184.2597',1101.75')	(5546097.1257',3834155.4259',1103.40')	
7	Line	24.34'		S6° 08' 15"W	1+50.89'	1+75.23'				(5546097.1257',3834155.4259',1103.40')	(5546094.5237',3834131.2287',1102.57')	
8	Curve	11.30'	30.00'		1+75.23'	1+86.53'	21.5747 (d)	11.23'	S4° 38' 59"E	(5546094.5237',3834131.2287',1102.57')	(5546095.4341',3834120.0358',1102.17')	(5546124.3518',3834128.0212')
9	Line	34.32'		N15° 26' 14"W	1+86.53'	2+20.85'				(5546095.4341',3834120.0358',1102.17')	(5546086.2982',3834153.1197',1103.53')	
10	Curve	3.76'	65.00'		2+20.85'	2+24.60'	3.3105 (d)	3.76'	N17° 05' 33"W	(5546086.2982',3834153.1197',1103.53')	(5546085.1945',3834156.7089',1103.66')	(5546023.6432',3834135.8178')

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY	DATE	REVISION

DRAWN BY:
CHK'D BY:
PROJECT NUMBER: 21-03-22-01
DATE: 5/01/2021
SHEET No: 86

CAMPPAD #12

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	20.21'		S24° 16' 10"W	0+00.00'	0+20.21'				(5546086.9293',3834094.4816',1101.59')	(5546078.6236',3834076.0605',1101.50')	
2	Line	31.00'		S24° 16' 10"W	0+20.21'	0+51.21'				(5546078.6236',3834076.0605',1101.50')	(5546065.8817',3834047.8002',1100.50')	
3	Line	20.83'		S24° 16' 10"W	0+51.21'	0+72.04'				(5546065.8817',3834047.8002',1100.50')	(5546057.3181',3834028.8070',1099.46')	
4	Curve	3.98'	50.00'		0+72.04'	0+76.02'	4.5606 (d)	3.98'	S72° 16' 57"W	(5546057.3181',3834028.8070',1099.46')	(5546053.5280',3834027.5962',1099.54')	(5546040.2189',3834075.7923')
5	Line	25.84'		S74° 33' 46"W	0+76.02'	1+01.86'				(5546053.5280',3834027.5962',1099.54')	(5546028.6234',3834020.7189',1100.38')	
6	Curve	26.33'	30.00'		1+01.86'	1+28.19'	50.2933 (d)	25.50'	N49° 24' 58"E	(5546028.6234',3834020.7189',1100.38')	(5546047.9866',3834037.3057',1100.00')	(5546020.6380',3834049.6366')
7	Line	16.92'		N24° 16' 10"E	1+28.19'	1+45.11'				(5546047.9866',3834037.3057',1100.00')	(5546054.9423',3834052.7326',1100.75')	
8	Line	13.89'		N35° 28' 26"W	1+45.11'	1+59.01'				(5546054.9423',3834052.7326',1100.75')	(5546046.8800',3834064.0463',1101.25')	
9	Line	24.00'		N24° 16' 10"E	1+59.01'	1+83.01'				(5546046.8800',3834064.0463',1101.25')	(5546056.7447',3834085.9252',1102.00')	
10	Line	12.00'		S65° 43' 50"E	1+83.01'	1+95.01'				(5546056.7447',3834085.9252',1102.00')	(5546067.6842',3834080.9929',1101.75')	
11	Line	23.83'		N24° 16' 10"E	1+95.01'	2+18.83'				(5546067.6842',3834080.9929',1101.75')	(5546077.4771',3834102.7126',1101.90')	
12	Curve	11.00'	30.00'		2+18.83'	2+29.83'	21.0094 (d)	10.94'	N13° 45' 53"E	(5546077.4771',3834102.7126',1101.90')	(5546080.0799',3834113.3374',1102.43')	(5546050.1285',3834115.0435')
13	Line	1.58'		N74° 33' 46"E	2+29.83'	2+31.42'				(5546080.0799',3834113.3374',1102.43')	(5546081.6060',3834113.7588',1102.38')	
14	Line	20.00'		S15° 26' 14"E	2+31.42'	2+51.41'				(5546081.6060',3834113.7588',1102.38')	(5546086.9293',3834094.4816',1101.59')	

CAMPPAD #13

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	44.00'		N39° 22' 18"E	0+00.00'	0+44.00'				(5546095.4782',3834119.8759',1102.16')	(5546123.3896',3834153.8900',1100.00')	
2	Line	13.89'		N20° 22' 19"W	0+44.00'	0+57.89'				(5546123.3896',3834153.8900',1100.00')	(5546118.5535',3834166.9135',1100.00')	
3	Line	24.00'		N39° 22' 18"E	0+57.89'	0+81.89'				(5546118.5535',3834166.9135',1100.00')	(5546133.7778',3834185.4666',1099.00')	
4	Line	24.00'		S50° 37' 42"E	0+81.89'	1+05.89'				(5546133.7778',3834185.4666',1099.00')	(5546152.3310',3834170.2423',1098.50')	
5	Line	31.00'		S39° 22' 18"W	1+05.89'	1+36.89'				(5546152.3310',3834170.2423',1098.50')	(5546132.6662',3834146.2778',1099.75')	
6	Line	36.95'		S39° 22' 18"W	1+36.89'	1+73.84'				(5546132.6662',3834146.2778',1099.75')	(5546109.2281',3834117.7151',1101.60')	
7	Curve	21.03'	30.00'		1+73.84'	1+94.87'	40.1581 (d)	20.60'	S19° 17' 34"W	(5546109.2281',3834117.7151',1101.60')	(5546102.4223',3834098.2729',1101.25')	(5546132.4195',3834098.6846')
8	Line	0.94'		S74° 33' 46"W	1+94.87'	1+95.81'				(5546102.4223',3834098.2729',1101.25')	(5546101.5131',3834098.0218',1101.27')	
9	Line	22.67'		N15° 26' 14"W	1+95.81'	2+18.48'				(5546101.5131',3834098.0218',1101.27')	(5546095.4782',3834119.8759',1102.16')	

CAMPPAD #14

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	44.10'		N63° 35' 00"E	0+00.00'	0+44.10'				(5546101.3287',3834053.6429',1099.67')	(5546140.8221',3834073.2620',1097.20')	
2	Line	13.84'		N3° 29' 21"E	0+44.10'	0+57.94'				(5546140.8221',3834073.2620',1097.20')	(5546141.6646',3834087.0797',1097.20')	
3	Line	24.00'		N63° 35' 00"E	0+57.94'	0+81.94'				(5546141.6646',3834087.0797',1097.20')	(5546163.1585',3834097.7572',1096.70')	
4	Line	24.00'		S26° 25' 00"E	0+81.94'	1+05.94'				(5546163.1585',3834097.7572',1096.70')	(5546173.8361',3834076.2633',1095.70')	
5	Line	30.90'		S63° 35' 00"W	1+05.94'	1+36.84'				(5546173.8361',3834076.2633',1095.70')	(5546146.1608',3834062.5151',1096.95')	
6	Line	44.10'		S63° 35' 00"W	1+36.84'	1+80.94'				(5546146.1608',3834062.5151',1096.95')	(5546106.6675',3834042.8959',1099.30')	
7	Line	11.71'		S63° 35' 00"W	1+80.94'	1+92.65'				(5546106.6675',3834042.8959',1099.30')	(5546096.1776',3834037.6849',1099.22')	
8	Curve	10.70'	30.00'		1+92.65'	2+03.35'	20.4305 (d)	10.64'	S53° 22' 05"W	(5546096.1776',3834037.6849',1099.22')	(5546087.6385',3834031.3358',1099.12')	(5546109.5245',3834010.8175')
9	Curve	26.35'	65.00'		2+03.35'	2+29.70'	23.2296 (d)	26.17'	N31° 32' 17"E	(5546087.6385',3834031.3358',1099.12')	(5546101.3287',3834053.6429',1099.67')	(5546040.2189',3834075.7923')

CAMPPAD #15

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	34.00'		S69° 28' 48"E	0+00.00'	0+34.00'				(5546041.9738',3834008.8441',1099.68')	(5546073.8165',3833996.9259',1097.00')	
2	Line	13.89'		N50° 46' 35"E	0+34.00'	0+47.89'				(5546073.8165',3833996.9259',1097.00')	(5546084.5788',3834005.7108',1096.50')	
3	Line	24.00'		S69° 28' 48"E	0+47.89'	0+71.89'				(5546084.5788',3834005.7108',1096.50')	(5546107.0560',3833997.2979',1095.75')	
4	Line	24.00'		S20° 31' 12"W	0+71.89'	0+95.89'				(5546107.0560',3833997.2979',1095.75')	(5546098.6431',3833974.8207',1095.50')	
5	Line	31.00'		N69° 28' 48"W	0+95.89'	1+26.89'				(5546098.6431',3833974.8207',1095.50')	(5546069.6101',3833985.6873',1096.75')	
6	Line	34.00'		N69° 28' 48"W	1+26.89'	1+60.89'				(5546069.6101',3833985.6873',1096.75')	(5546037.7674',3833997.6055',1099.43')	
7	Line	6.81'		N69° 28' 48"W	1+60.89'	1+67.70'				(5546037.7674',3833997.6055',1099.43')	(5546031.3921',3833999.9917',1100.00')	
8	Curve	18.83'	30.00'		1+67.70'	1+86.53'	35.9573 (d)	18.52'	N87° 27' 31"W	(5546031.3921',3833999.9917',1100.00')	(5546012.8905',3834000.8129',1101.20')	(5546020.8760',3833971.8953')
9	Line	30.17'		N74° 33' 46"E	1+86.53'	2+16.70'				(5546012.8905',3834000.8129',1101.20')	(5546041.9738',3834008.8441',1099.68')	

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 87

CAMPPAD TRAVERSE ALIGNMENT CONTROL (CONT.)

CAMPPAD #16

EXISTING CAMPPAD

CAMPPAD #17

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	15.71'	30.00'		0+00.00'	0+15.71'	30.0000 (d)	15.53'	N59° 33' 46"E	(5545959.5353',3834001.6406',1104.62')	(5545972.9243',3834009.5076',1103.60')	(5545951.5498',3834030.5583')
2	Line	12.75'		N44° 33' 46"E	0+15.71'	0+28.45'				(5545972.9243',3834009.5076',1103.60')	(5545981.8681',3834018.5890',1103.15')	
3	Line	24.00'		N44° 33' 46"E	0+28.45'	0+52.45'				(5545981.8681',3834018.5890',1103.15')	(5545998.7087',3834035.6885',1104.00')	
4	Line	13.89'		N15° 10' 51"W	0+52.45'	0+66.35'				(5545998.7087',3834035.6885',1104.00')	(5545995.0707',3834049.0962',1104.50')	
5	Line	24.00'		N44° 33' 46"E	0+66.35'	0+90.35'				(5545995.0707',3834049.0962',1104.50')	(5546011.9113',3834066.1957',1105.00')	
6	Line	24.00'		S45° 26' 14"E	0+90.35'	1+14.35'				(5546011.9113',3834066.1957',1105.00')	(5546029.0109',3834049.3552',1104.00')	
7	Line	31.00'		S44° 33' 46"W	1+14.35'	1+45.35'				(5546029.0109',3834049.3552',1104.00')	(5546007.2585',3834027.2682',1103.60')	
8	Line	24.00'		S44° 33' 46"W	1+45.35'	1+69.35'				(5546007.2585',3834027.2682',1103.60')	(5545990.4179',3834010.1687',1102.67')	
9	Line	32.04'		S74° 33' 46"W	1+69.35'	2+01.38'				(5545990.4179',3834010.1687',1102.67')	(5545959.5353',3834001.6406',1104.62')	

CAMPPAD #18

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	17.59'	30.00'		0+00.00'	0+17.59'	33.5920 (d)	17.34'	N61° 21' 28"E	(5545903.1403',3833986.2850',1108.20')	(5545918.3565',3833994.5957',1107.00')	(5545896.9818',3834015.6461')
2	Line	12.44'		N44° 33' 46"E	0+17.59'	0+30.03'				(5545918.3565',3833994.5957',1107.00')	(5545927.0884',3834003.4619',1106.60')	
3	Line	24.00'		N44° 33' 46"E	0+30.03'	0+54.03'				(5545927.0884',3834003.4619',1106.60')	(5545943.9290',3834020.5614',1106.75')	
4	Line	13.89'		N15° 10' 51"W	0+54.03'	0+67.93'				(5545943.9290',3834020.5614',1106.75')	(5545940.2911',3834033.9691',1107.25')	
5	Line	24.00'		N44° 33' 46"E	0+67.93'	0+91.93'				(5545940.2911',3834033.9691',1107.25')	(5545957.1316',3834051.0687',1107.50')	
6	Line	24.00'		S45° 26' 14"E	0+91.93'	1+15.93'				(5545957.1316',3834051.0687',1107.50')	(5545974.2312',3834034.2281',1106.50')	
7	Line	31.00'		S44° 33' 46"W	1+15.93'	1+46.93'				(5545974.2312',3834034.2281',1106.50')	(5545952.4788',3834012.1411',1106.50')	
8	Line	24.00'		S44° 33' 46"W	1+46.93'	1+70.93'				(5545952.4788',3834012.1411',1106.50')	(5545935.6382',3833995.0416',1106.13')	
9	Line	27.42'		S74° 33' 46"W	1+70.93'	1+98.34'				(5545935.6382',3833995.0416',1106.13')	(5545909.2117',3833987.7441',1107.79')	
10	Curve	5.80'	92.50'		1+98.34'	2+04.14'	3.5911 (d)	5.80'	S76° 21' 30"W	(5545909.2117',3833987.7441',1107.79')	(5545903.5787',3833986.3769',1108.17')	(5545884.5899',3834076.9069')
11	Line	0.45'		S78° 09' 14"W	2+04.14'	2+04.59'				(5545903.5787',3833986.3769',1108.17')	(5545903.1403',3833986.2850',1108.20')	

CAMPPAD #19

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	24.00'		S51° 50' 46"E	0+00.00'	0+24.00'				(5545916.9653',3833974.3237',1107.26')	(5545935.8378',3833959.4971',1105.45')	
2	Line	13.89'		N68° 24' 37"E	0+24.00'	0+37.89'				(5545935.8378',3833959.4971',1105.45')	(5545948.7556',3833964.6089',1105.45')	
3	Line	24.00'		S51° 50' 46"E	0+37.89'	0+61.89'				(5545948.7556',3833964.6089',1105.45')	(5545967.6281',3833949.7823',1104.70')	
4	Line	24.00'		S38° 09' 14"W	0+61.89'	0+85.89'				(5545967.6281',3833949.7823',1104.70')	(5545952.8015',3833930.9098',1104.20')	
5	Line	31.00'		N51° 50' 46"W	0+85.89'	1+16.89'				(5545952.8015',3833930.9098',1104.20')	(5545928.4245',3833950.0608',1105.45')	
6	Line	19.49'		N51° 50' 46"W	1+16.89'	1+36.38'				(5545928.4245',3833950.0608',1105.45')	(5545913.1020',3833962.0985',1107.00')	
7	Curve	26.18'	30.00'		1+36.38'	1+62.56'	50.0003 (d)	25.36'	N76° 50' 47"W	(5545913.1020',3833962.0985',1107.00')	(5545888.4101',3833967.8689',1109.01')	(5545894.5688',3833938.5079')
8	Line	18.64'		N78° 09' 14"E	1+62.56'	1+81.20'				(5545888.4101',3833967.8689',1109.01')	(5545906.6579',3833971.6964',1107.87')	
9	Curve	6.74'	107.50'		1+81.20'	1+87.94'	3.5911 (d)	6.74'	N76° 21' 30"E	(5545906.6579',3833971.6964',1107.87')	(5545913.2044',3833973.2852',1107.49')	(5545884.5899',3834076.9069')
10	Line	3.90'		N74° 33' 46"E	1+87.94'	1+91.84'				(5545913.2044',3833973.2852',1107.49')	(5545916.9653',3833974.3237',1107.26')	

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:

CHK'D BY:

PROJECT NUMBER: 21-03-22-01

DATE: 5/01/2021

SHEET No: 88

CAMPPAD TRAVERSE ALIGNMENT CONTROL (CONT.)

CAMPPAD #20 & 21

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	35.27'		N45° 15' 46"W	0+00.00'	0+35.27'				(5545855.5952',3833976.3124',1111.16')	(5545830.5407',3834001.1381',1115.00')	
2	Line	31.00'		N45° 15' 46"W	0+35.27'	0+66.27'				(5545830.5407',3834001.1381',1115.00')	(5545808.5202',3834022.9577',1116.20')	
3	Line	11.94'		N45° 15' 46"W	0+66.27'	0+78.21'				(5545808.5202',3834022.9577',1116.20')	(5545800.0417',3834031.3588',1117.00')	
4	Curve	10.68'	38.00'		0+78.21'	0+88.89'	16.1033 (d)	10.64'	N53° 18' 52"W	(5545800.0417',3834031.3588',1117.00')	(5545791.5052',3834037.7184',1117.75')	(5545773.2951',3834004.3658')
5	Curve	21.28'	40.00'		0+88.89'	1+10.17'	30.4883 (d)	21.03'	N2° 12' 42"E	(5545791.5052',3834037.7184',1117.75')	(5545792.3170',3834058.7373',1118.95')	(5545753.3473',3834049.7172')
6	Line	4.90'		N13° 01' 57"W	1+10.17'	1+15.07'				(5545792.3170',3834058.7373',1118.95')	(5545791.2128',3834063.5081',1119.05')	
7	Curve	16.88'	30.00'		1+15.07'	1+31.94'	32.2303 (d)	16.65'	S29° 08' 51"E	(5545791.2128',3834063.5081',1119.05')	(5545799.3243',3834048.9629',1118.00')	(5545820.4400',3834070.2732')
8	Line	12.90'		S45° 15' 46"E	1+31.94'	1+44.84'				(5545799.3243',3834048.9629',1118.00')	(5545808.4880',3834039.8829',1117.00')	
9	Line	11.94'		S45° 15' 46"E	1+44.84'	1+56.78'				(5545808.4880',3834039.8829',1117.00')	(5545816.9665',3834031.4818',1116.20')	
10	Line	13.89'		N74° 59' 38"E	1+56.78'	1+70.67'				(5545816.9665',3834031.4818',1116.20')	(5545830.3851',3834035.0789',1116.00')	
11	Line	24.00'		S45° 15' 46"E	1+70.67'	1+94.67'				(5545830.3851',3834035.0789',1116.00')	(5545847.4333',3834018.1863',1115.00')	
12	Line	12.00'		S44° 44' 14"W	1+94.67'	2+06.67'				(5545847.4333',3834018.1863',1115.00')	(5545838.9870',3834009.6622',1115.00')	
13	Line	27.04'		S45° 15' 46"E	2+06.67'	2+33.71'				(5545838.9870',3834009.6622',1115.00')	(5545858.1952',3833990.6294',1111.80')	
14	Curve	9.87'	30.00'		2+33.71'	2+43.58'	18.8526 (d)	9.83'	S54° 41' 20"E	(5545858.1952',3833990.6294',1111.80')	(5545866.2141',3833984.9494',1110.60')	(5545879.3110',3834011.9396')
15	Line	6.74'		N44° 33' 46"E	2+43.58'	2+50.33'				(5545866.2141',3833984.9494',1110.60')	(5545870.9462',3833989.7543',1110.15')	
16	Line	28.99'		N44° 33' 46"E	2+50.33'	2+79.31'				(5545870.9462',3833989.7543',1110.15')	(5545891.2848',3834010.4056',1110.00')	
17	Line	13.89'		N15° 10' 51"W	2+79.31'	2+93.21'				(5545891.2848',3834010.4056',1110.00')	(5545887.6468',3834023.8133',1110.50')	
18	Line	24.00'		N44° 33' 46"E	2+93.21'	3+17.21'				(5545887.6468',3834023.8133',1110.50')	(5545904.4874',3834040.9129',1111.00')	
19	Line	24.00'		S45° 26' 14"E	3+17.21'	3+41.21'				(5545904.4874',3834040.9129',1111.00')	(5545921.5870',3834024.0723',1110.00')	
20	Line	31.00'		S44° 33' 46"W	3+41.21'	3+72.21'				(5545921.5870',3834024.0723',1110.00')	(5545899.8346',3834001.9854',1109.50')	
21	Line	29.00'		S44° 33' 46"W	3+72.21'	4+01.21'				(5545899.8346',3834001.9854',1109.50')	(5545879.4855',3833981.3234',1109.67')	
22	Line	24.41'		S78° 09' 14"W	4+01.21'	4+25.62'				(5545879.4855',3833981.3234',1109.67')	(5545855.5952',3833976.3124',1111.16')	

CAMPPAD #22

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	24.00'		S56° 50' 46"E	0+00.00'	0+24.00'				(5545849.1378',3833959.6315',1111.45')	(5545869.2307',3833946.5061',1110.00')	
2	Line	13.89'		N63° 24' 37"E	0+24.00'	0+37.89'				(5545869.2307',3833946.5061',1110.00')	(5545881.6539',3833952.7243',1109.50')	
3	Line	24.00'		S56° 50' 46"E	0+37.89'	0+61.89'				(5545881.6539',3833952.7243',1109.50')	(5545901.7468',3833939.5990',1109.00')	
4	Line	24.00'		S33° 09' 14"W	0+61.89'	0+85.89'				(5545901.7468',3833939.5990',1109.00')	(5545888.6214',3833919.5061',1108.50')	
5	Line	31.00'		N56° 50' 46"W	0+85.89'	1+16.89'				(5545888.6214',3833919.5061',1108.50')	(5545862.6681',3833936.4596',1109.75')	
6	Line	23.57'		N56° 50' 46"W	1+16.89'	1+40.47'				(5545862.6681',3833936.4596',1109.75')	(5545842.9321',3833949.3518',1111.50')	
7	Curve	20.62'	30.00'		1+40.47'	1+61.08'	39.3737 (d)	20.21'	N76° 31' 59"W	(5545842.9321',3833949.3518',1111.50')	(5545823.2751',3833954.0591',1112.95')	(5545826.5254',3833924.2357')
8	Curve	1.70'	10.00'		1+61.08'	1+62.78'	9.7528 (d)	1.70'	N73° 16' 39"E	(5545823.2751',3833954.0591',1112.95')	(5545824.9033',3833954.5483',1112.91')	(5545826.9562',3833944.7613')
9	Line	24.76'		N78° 09' 14"E	1+62.78'	1+87.55'				(5545824.9033',3833954.5483',1112.91')	(5545849.1378',3833959.6315',1111.45')	

CAMPPAD #23, 25, 27 & 29

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	3.11'		S49° 46' 54"E	0+00.00'	0+03.11'				(5545873.6829',3833863.3411',1106.02)	(5545876.0555',3833861.3347',1105.64')	
2	Curve	30.27'	89.00'		0+03.11'	0+33.37'	19.4851 (d)	30.12'	S40° 02' 21"E	(5545876.0555',3833861.3347',1105.64')	(5545895.4329',3833838.2736',1101.77')	(5545818.5880',3833793.3753')
3	Curve	9.79'	40.00'		0+33.37'	0+43.16'	14.0233 (d)	9.77'	S12° 18' 01"W	(5545895.4329',3833838.2736',1101.77')	(5545893.3525',3833828.7321',1101.75')	(5545855.6032',3833841.9606')
4	Curve	16.50'	28.00'		0+43.16'	0+59.67'	33.7736 (d)	16.27'	S2° 25' 31"W	(5545893.3525',3833828.7321',1101.75')	(5545892.6641',3833812.4797',1101.40')	(5545919.7769',3833819.4721')
5	Line	31.00'		S14° 27' 42"E	0+59.67'	0+90.67'				(5545892.6641',3833812.4797',1101.40')	(5545900.4057',3833782.4619',1100.15')	
6	Line	10.00'		S14° 27' 42"E	0+90.67'	1+00.67'				(5545900.4057',3833782.4619',1100.15')	(5545902.9030',3833772.7787',1099.60')	
7	Curve	15.76'	28.00'		1+00.67'	1+16.43'	32.2432 (d)	15.55'	S30° 34' 59"E	(5545902.9030',3833772.7787',1099.60')	(5545910.8146',3833759.3919',1098.45')	(5545930.0159',3833779.7712')
8	Curve	13.46'	28.00'		1+16.43'	1+29.88'	27.5354 (d)	13.33'	N4° 49' 53"E	(5545910.8146',3833759.3919',1098.45')	(5545911.9371',3833772.6718',1098.24')	(5545884.2770',3833768.3224')
9	Line	44.97'		S8° 56' 11"E	1+29.88'	1+74.86'				(5545911.9371',3833772.6718',1098.24')	(5545918.9232',3833728.2437',1098.22')	
10	Curve	13.94'	28.00'		1+74.86'	1+88.79'	28.5196 (d)	13.79'	N23° 11' 46"W	(5545918.9232',3833728.2437',1098.22')	(5545913.4901',3833740.9225',1098.45')	(5545891.2631',3833723.8943')
11	Curve	23.24'	28.00'		1+88.79'	2+12.03'	47.5523 (d)	22.58'	S14° 50' 23"W	(5545913.4901',3833740.9225',1098.45')	(5545907.7077',3833719.0984',1100.00')	(5545935.3678',3833723.4478')

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 89

CAMPPAD TRAVERSE ALIGNMENT CONTROL (CONT.)

12	Line	31.00'		S8° 56' 11"E	2+12.03'	2+43.03'				(5545907.7077',3833719.0984',1100.00')	(5545912.5231',3833688.4747',1100.00')	
13	Line	10.00'		S8° 56' 11"E	2+43.03'	2+53.03'				(5545912.5231',3833688.4747',1100.00')	(5545914.0765',3833678.5961',1099.60')	
14	Curve	22.44'	28.00'		2+53.03'	2+75.48'	45.9264 (d)	21.85'	S31° 53' 58"E	(5545914.0765',3833678.5961',1099.60')	(5545925.6216',3833660.0478',1098.40')	(5545941.7366',3833682.9455')
15	Curve	15.10'	28.00'		2+75.48'	2+90.58'	30.9084 (d)	14.92'	N6° 31' 04"E	(5545925.6216',3833660.0478',1098.40')	(5545927.3154',3833674.8735',1098.22')	(5545899.6553',3833670.5241')
16	Line	46.53'		S8° 56' 11"E	2+90.58'	3+37.11'				(5545927.3154',3833674.8735',1098.22')	(5545934.5436',3833628.9061',1098.22')	
17	Curve	15.10'	28.00'		3+37.11'	3+52.22'	30.9084 (d)	14.92'	N24° 23' 26"W	(5545934.5436',3833628.9061',1098.22')	(5545928.3814',3833642.4965',1098.40')	(5545906.8835',3833624.5566')
18	Curve	22.44'	28.00'		3+52.22'	3+74.66'	45.9264 (d)	21.85'	S14° 01' 37"W	(5545928.3814',3833642.4965',1098.40')	(5545923.0860',3833621.3001',1099.75')	(5545950.7462',3833625.6495')
19	Line	31.00'		S8° 56' 11"E	3+74.66'	4+05.66'				(5545923.0860',3833621.3001',1099.75')	(5545927.9015',3833590.6764',1099.75')	
20	Line	10.00'		S8° 56' 11"E	4+05.66'	4+15.66'				(5545927.9015',3833590.6764',1099.75')	(5545929.4548',3833580.7978',1099.50')	
21	Curve	27.56'	28.00'		4+15.66'	4+43.22'	56.3876 (d)	26.46'	S37° 07' 49"E	(5545929.4548',3833580.7978',1099.50')	(5545945.4253',3833559.7041',1098.22')	(5545957.1150',3833585.1472')
22	Line	17.41'		S8° 56' 11"E	4+43.22'	4+60.63'				(5545945.4253',3833559.7041',1098.22')	(5545948.1295',3833542.5072',1098.22')	
23	Curve	32.95'	39.00'		4+60.63'	4+93.57'	48.4047 (d)	31.98'	S15° 15' 58"W	(5545948.1295',3833542.5072',1098.22')	(5545939.7099',3833511.6587',1098.80')	(5545909.6029',3833536.4491')
24	Curve	19.87'	28.00'		4+93.57'	5+13.44'	40.6513 (d)	19.45'	N19° 08' 34"E	(5545939.7099',3833511.6587',1098.80')	(5545946.0886',3833530.0350',1098.35')	(5545918.0946',3833529.4569')
25	Curve	23.41'	40.00'		5+13.44'	5+36.85'	33.5276 (d)	23.07'	S60° 52' 27"W	(5545946.0886',3833530.0350',1098.35')	(5545925.9321',3833518.8041',1100.60')	(5545917.3686',3833557.8767')
26	Line	8.15'		S77° 38' 17"W	5+36.85'	5+45.00'				(5545925.9321',3833518.8041',1100.60')	(5545917.9715',3833517.0594',1101.10')	
27	Line	31.00'		S77° 38' 17"W	5+45.00'	5+76.00'				(5545917.9715',3833517.0594',1101.10')	(5545887.6902',3833510.4227',1102.65')	
28	Line	16.75'		S77° 38' 17"W	5+76.00'	5+92.75'				(5545887.6902',3833510.4227',1102.65')	(5545871.3262',3833506.8362',1103.70')	
29	Curve	17.38'	42.00'		5+92.75'	6+10.13'	23.7140 (d)	17.26'	S89° 29' 42"W	(5545871.3262',3833506.8362',1103.70')	(5545854.0674',3833506.6840',1105.55')	(5545862.3345',3833547.8624')
30	Curve	0.82'	39.00'		6+10.13'	6+10.95'	1.2016 (d)	0.82'	N28° 04' 51"W	(5545854.0674',3833506.6840',1105.55')	(5545853.6824',3833507.4057',1105.62')	(5545888.2822',3833525.4017')
31	Curve	25.33'	111.00'		6+10.95'	6+36.28'	13.0757 (d)	25.28'	N34° 01' 04"W	(5545853.6824',3833507.4057',1105.62')	(5545839.5412',3833528.3568',1106.88')	(5545755.2063',3833456.1861')
32	Curve	32.36'	30.00'		6+36.28'	6+68.64'	61.8064 (d)	30.82'	S71° 27' 32"E	(5545839.5412',3833528.3568',1106.88')	(5545868.7571',3833518.5579',1103.95')	(5545862.3345',3833547.8624')
33	Line	16.75'		N77° 38' 17"E	6+68.64'	6+85.40'				(5545868.7571',3833518.5579',1103.95')	(5545885.1212',3833522.1444',1102.65')	
34	Line	13.89'		N17° 53' 40"E	6+85.40'	6+99.29'				(5545885.1212',3833522.1444',1102.65')	(5545889.3898',3833535.3648',1102.40')	
35	Line	24.00'		N77° 38' 17"E	6+99.29'	7+23.29'				(5545889.3898',3833535.3648',1102.40')	(5545912.8334',3833540.5029',1101.40')	
36	Line	12.00'		S12° 21' 43"E	7+23.29'	7+35.29'				(5545912.8334',3833540.5029',1101.40')	(5545915.4024',3833528.7812',1101.10')	
37	Line	8.15'		N77° 38' 17"E	7+35.29'	7+43.44'				(5545915.4024',3833528.7812',1101.10')	(5545923.3631',3833530.5259',1100.60')	
38	Curve	23.75'	28.00'		7+43.44'	7+67.19'	48.5930 (d)	23.04'	N53° 20' 29"E	(5545923.3631',3833530.5259',1100.60')	(5545941.8473',3833544.2828',1098.50')	(5545917.3686',3833557.8767')
39	Curve	11.25'	28.00'		7+67.19'	7+78.43'	23.0108 (d)	11.17'	N43° 28' 37"W	(5545941.8473',3833544.2828',1098.50')	(5545934.1618',3833552.3882',1098.70')	(5545918.0946',3833529.4569')
40	Curve	32.15'	40.00'		7+78.43'	8+10.58'	46.0460 (d)	31.29'	N31° 57' 34"W	(5545934.1618',3833552.3882',1098.70')	(5545917.6005',3833578.9337',1099.75')	(5545957.1150',3833585.1472')
41	Line	10.00'		N8° 56' 11"W	8+10.58'	8+20.58'				(5545917.6005',3833578.9337',1099.75')	(5545916.0471',3833588.8123',1100.13')	
42	Line	13.89'		N68° 40' 48"W	8+20.58'	8+34.47'				(5545916.0471',3833588.8123',1100.13')	(5545903.1054',3833593.8633',1100.50')	
43	Line	24.00'		N8° 56' 11"W	8+34.47'	8+58.47'				(5545903.1054',3833593.8633',1100.50')	(5545899.3773',3833617.5720',1100.50')	
44	Line	12.00'		N81° 03' 49"E	8+58.47'	8+70.47'				(5545899.3773',3833617.5720',1100.50')	(5545911.2317',3833619.4361',1100.13')	
45	Curve	32.44'	40.00'		8+70.47'	9+02.91'	46.4688 (d)	31.56'	N14° 17' 53"E	(5545911.2317',3833619.4361',1100.13')	(5545919.0258',3833650.0180',1098.65')	(5545950.7462',3833625.6495')
46	Curve	32.44'	40.00'		9+02.91'	9+35.35'	46.4688 (d)	31.56'	N32° 10' 15"W	(5545919.0258',3833650.0180',1098.65')	(5545902.2222',3833676.7320',1099.90')	(5545941.7366',3833682.9455')
47	Line	10.00'		N8° 56' 11"W	9+35.35'	9+45.35'				(5545902.2222',3833676.7320',1099.90')	(5545900.6688',3833686.6106',1100.38')	
48	Line	13.89'		N68° 40' 48"W	9+45.35'	9+59.24'				(5545900.6688',3833686.6106',1100.38')	(5545887.7271',3833691.6616',1100.75')	
49	Line	24.00'		N8° 56' 11"W	9+59.24'	9+83.24'				(5545887.7271',3833691.6616',1100.75')	(5545883.9990',3833715.3703',1100.75')	
50	Line	12.00'		N81° 03' 49"E	9+83.24'	9+95.24'				(5545883.9990',3833715.3703',1100.75')	(5545895.8533',3833717.2344',1100.38')	
51	Curve	33.87'	40.00'		9+95.24'	10+29.12'	48.5169 (d)	32.87'	N15° 19' 20"E	(5545895.8533',3833717.2344',1100.38')	(5545904.5386',3833748.9343',1098.95')	(5545935.3678',3833723.4478')
52	Curve	25.12'	40.00'		10+29.12'	10+54.23'	35.9751 (d)	24.70'	N32° 26' 57"W	(5545904.5386',3833748.9343',1098.95')	(5545891.2832',3833769.7820',1099.85')	(5545930.0159',3833779.7712')
53	Line	10.00'		N14° 27' 42"W	10+54.23'	10+64.23'				(5545891.2832',3833769.7820',1099.85')	(5545888.7859',3833779.4651',1100.40')	
54	Line	13.89'		N74° 12' 18"W	10+64.23'	10+78.12'				(5545888.7859',3833779.4651',1100.40')	(5545875.4180',3833783.2466',1101.00')	
55	Line	24.00'		N14° 27' 42"W	10+78.12'	11+02.12'				(5545875.4180',3833783.2466',1101.00')	(5545869.4245',3833806.4861',1102.15')	
56	Line	12.00'		N75° 32' 18"E	11+02.12'	11+14.12'				(5545869.4245',3833806.4861',1102.15')	(5545881.0443',3833809.4829',1101.78')	
57	Curve	23.58'	40.00'		11+14.12'	11+37.70'	33.7736 (d)	23.24'	N2° 25' 31"E	(5545881.0443',3833809.4829',1101.78')	(5545882.0277',3833832.7006',1102.00')	(5545919.7769',3833819.4721')
58	Curve	33.77'	28.00'		11+37.70'	11+71.47'	69.0937 (d)	31.76'	N15° 14' 05"W	(5545882.0277',3833832.7006',1102.00')	(5545873.6829',3833863.3411',1106.02)	(5545855.6032',3833841.9606')

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021

SHEET No: 90

CAMPPAD TRAVERSE ALIGNMENT CONTROL (CONT.)

CAMPPAD #24, 26, 28 & 30

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	19.23'	28.00'		0+00.00'	0+19.23'	39.3522 (d)	18.86'	S46° 33' 42"E	(5545917.5901',3833843.5706',1100.87')	(5545931.2813',3833830.6062',1098.95')	(5545942.5636',3833856.2325')
2	Curve	40.00'	40.00'		0+19.23'	0+59.23'	57.3013 (d)	38.36'	S37° 35' 14"E	(5545931.2813',3833830.6062',1098.95')	(5545954.6780',3833800.2107',1096.50')	(5545915.1636',3833793.9972')
3	Line	15.00'		S8° 56' 11"E	0+59.23'	0+74.23'				(5545954.6780',3833800.2107',1096.50')	(5545957.0081',3833785.3928',1095.75')	
4	Line	13.89'		S68° 40' 48"E	0+74.23'	0+88.13'				(5545957.0081',3833785.3928',1095.75')	(5545969.9498',3833780.3418',1095.25')	
5	Line	24.00'		S8° 56' 11"E	0+88.13'	1+12.13'				(5545969.9498',3833780.3418',1095.25')	(5545973.6779',3833756.6332',1095.25')	
6	Line	12.00'		S81° 03' 49"W	1+12.13'	1+24.13'				(5545973.6779',3833756.6332',1095.25')	(5545961.8235',3833754.7691',1095.50')	
7	Curve	28.82'	40.00'		1+24.13'	1+52.95'	41.2799 (d)	28.20'	S11° 42' 13"W	(5545961.8235',3833754.7691',1095.50')	(5545956.1033',3833727.1558',1097.00')	(5545922.3091',3833748.5556')
8	Curve	28.82'	40.00'		1+52.95'	1+81.77'	41.2799 (d)	28.20'	S29° 34' 35"E	(5545956.1033',3833727.1558',1097.00')	(5545970.0221',3833702.6307',1096.10')	(5545930.5076',3833696.4172')
9	Line	15.00'		S8° 56' 11"E	1+81.77'	1+96.77'				(5545970.0221',3833702.6307',1096.10')	(5545972.3521',3833687.8128',1095.50')	
10	Line	13.89'		S68° 40' 48"E	1+96.77'	2+10.66'				(5545972.3521',3833687.8128',1095.50')	(5545985.2938',3833682.7618',1095.25')	
11	Line	24.00'		S8° 56' 11"E	2+10.66'	2+34.66'				(5545985.2938',3833682.7618',1095.25')	(5545989.0219',3833659.0531',1095.25')	
12	Line	12.00'		S81° 03' 49"W	2+34.66'	2+46.66'				(5545989.0219',3833659.0531',1095.25')	(5545977.1676',3833657.1891',1095.50')	
13	Curve	28.82'	40.00'		2+46.66'	2+75.48'	41.2799 (d)	28.20'	S11° 42' 13"W	(5545977.1676',3833657.1891',1095.50')	(5545971.4473',3833629.5758',1097.00')	(5545937.6531',3833650.9756')
14	Curve	28.82'	40.00'		2+75.48'	3+04.30'	41.2800 (d)	28.20'	S29° 34' 35"E	(5545971.4473',3833629.5758',1097.00')	(5545985.3662',3833605.0506',1096.10')	(5545945.8517',3833598.8371')
15	Line	15.00'		S8° 56' 11"E	3+04.30'	3+19.30'				(5545985.3662',3833605.0506',1096.10')	(5545987.6962',3833590.2327',1095.50')	
16	Line	13.89'		S68° 40' 48"E	3+19.30'	3+33.19'				(5545987.6962',3833590.2327',1095.50')	(5546000.6379',3833585.1817',1095.25')	
17	Line	24.00'		S8° 56' 11"E	3+33.19'	3+57.19'				(5546000.6379',3833585.1817',1095.25')	(5546004.3660',3833561.4730',1095.25')	
18	Line	12.00'		S81° 03' 49"W	3+57.19'	3+69.19'				(5546004.3660',3833561.4730',1095.25')	(5545992.5116',3833559.6090',1095.50')	
19	Curve	46.90'	40.00'		3+69.19'	4+16.08'	67.1743 (d)	44.26'	S24° 39' 03"W	(5545992.5116',3833559.6090',1095.50')	(5545974.0529',3833519.3858',1097.60')	(5545952.9972',3833553.3955')
20	Line	5.97'		S18° 21' 51"E	4+16.08'	4+22.05'				(5545974.0529',3833519.3858',1097.60')	(5545975.9323',3833513.7243',1097.70')	
21	Line	24.00'		S18° 21' 51"E	4+22.05'	4+46.05'				(5545975.9323',3833513.7243',1097.70')	(5545983.4936',3833490.9465',1095.85')	
22	Line	13.89'		S78° 06' 28"E	4+46.05'	4+59.94'				(5545983.4936',3833490.9465',1095.85')	(5545997.0879',3833488.0837',1095.25')	
23	Line	24.00'		S18° 21' 51"E	4+59.94'	4+83.94'				(5545997.0879',3833488.0837',1095.25')	(5546004.6492',3833465.3059',1094.25')	
24	Line	24.00'		S71° 38' 09"W	4+83.94'	5+07.94'				(5546004.6492',3833465.3059',1094.25')	(5545981.8714',3833457.7446',1094.75')	
25	Line	31.00'		N18° 21' 51"W	5+07.94'	5+38.94'				(5545981.8714',3833457.7446',1094.75')	(5545972.1047',3833487.1659',1096.20')	
26	Line	24.00'		N18° 21' 51"W	5+38.94'	5+62.94'				(5545972.1047',3833487.1659',1096.20')	(5545964.5434',3833509.9437',1098.05')	
27	Curve	22.42'	61.00'		5+62.94'	5+85.37'	21.0624 (d)	22.30'	N15° 13' 24"E	(5545964.5434',3833509.9437',1098.05')	(5545970.3984',3833531.4593',1097.80')	(5545909.6029',3833536.4491')
28	Curve	29.57'	28.00'		5+85.37'	6+14.94'	60.5124 (d)	28.22'	N21° 19' 12"E	(5545970.3984',3833531.4593',1097.80')	(5545980.6573',3833557.7449',1095.75')	(5545952.9972',3833553.3955')
29	Line	31.00'		N8° 56' 11"W	6+14.94'	6+45.94'				(5545980.6573',3833557.7449',1095.75')	(5545975.8419',3833588.3686',1095.75')	
30	Line	15.00'		N8° 56' 11"W	6+45.94'	6+60.94'				(5545975.8419',3833588.3686',1095.75')	(5545973.5118',3833603.1865',1096.35')	
31	Curve	19.40'	28.00'		6+60.94'	6+80.34'	39.7036 (d)	19.02'	N28° 47' 17"W	(5545973.5118',3833603.1865',1096.35')	(5545964.3538',3833619.8531',1097.25')	(5545945.8517',3833598.8371')
32	Curve	18.74'	28.00'		6+80.34'	6+99.08'	38.3523 (d)	18.39'	S10° 14' 23"W	(5545964.3538',3833619.8531',1097.25')	(5545961.0838',3833601.7515',1097.78')	(5545988.7439',3833606.1010')
33	Line	51.75'		N8° 56' 11"W	6+99.08'	7+50.84'				(5545961.0838',3833601.7515',1097.78')	(5545953.0447',3833652.8765',1097.78')	
34	Curve	18.74'	28.00'		7+50.84'	7+69.58'	38.3521 (d)	18.39'	S28° 06' 45"E	(5545953.0447',3833652.8765',1097.78')	(5545961.7122',3833636.6522',1097.25')	(5545980.7048',3833657.2259')
35	Curve	19.40'	28.00'		7+69.58'	7+88.98'	39.7034 (d)	19.02'	N10° 54' 55"E	(5545961.7122',3833636.6522',1097.25')	(5545965.3132',3833655.3250',1095.75')	(5545937.6531',3833650.9755')
36	Line	31.00'		N8° 56' 11"W	7+88.98'	8+19.98'				(5545965.3132',3833655.3250',1095.75')	(5545960.4978',3833685.9487',1095.75')	
37	Line	15.00'		N8° 56' 11"W	8+19.98'	8+34.98'				(5545960.4978',3833685.9487',1095.75')	(5545958.1677',3833700.7666',1096.35')	
38	Curve	19.40'	28.00'		8+34.98'	8+54.38'	39.7034 (d)	19.02'	N28° 47' 17"W	(5545958.1677',3833700.7666',1096.35')	(5545949.0098',3833717.4331',1097.25')	(5545930.5076',3833696.4172')
39	Curve	18.74'	28.00'		8+54.38'	8+73.13'	38.3523 (d)	18.39'	S10° 14' 23"W	(5545949.0098',3833717.4331',1097.25')	(5545945.7398',3833699.3316',1097.78')	(5545973.3999',3833703.6810')
40	Line	51.75'		N8° 56' 11"W	8+73.13'	9+24.88'				(5545945.7398',3833699.3316',1097.78')	(5545937.7006',3833750.4566',1097.78')	
41	Curve	18.74'	28.00'		9+24.88'	9+43.62'	38.3523 (d)	18.39'	S28° 06' 45"E	(5545937.7006',3833750.4566',1097.78')	(5545946.3682',3833734.2322',1097.25')	(5545965.3607',3833754.8060')
42	Curve	19.40'	28.00'		9+43.62'	9+63.03'	39.7034 (d)	19.02'	N10° 54' 55"E	(5545946.3682',3833734.2322',1097.25')	(5545949.9692',3833752.9050',1095.75')	(5545922.3091',3833748.5556')
43	Line	31.00'		N8° 56' 11"W	9+63.03'	9+94.03'				(5545949.9692',3833752.9050',1095.75')	(5545945.1538',3833783.5287',1096.00')	
44	Line	15.00'		N8° 56' 11"W	9+94.03'	10+09.03'				(5545945.1538',3833783.5287',1096.00')	(5545942.8237',3833798.3466',1096.75')	
45	Curve	28.01'	28.00'		10+09.03'	10+37.04'	57.3167 (d)	26.86'	N37° 35' 41"W	(5545942.8237',3833798.3466',1096.75')	(5545926.4391',3833819.6265',1099.21')	(5545915.1636',3833793.9972')
46	Curve	25.58'	111.00'		10+37.04'	10+62.62'	13.2057 (d)	25.53'	N20° 16' 58"W	(5545926.4391',3833819.6265',1099.21')	(5545917.5901',3833843.5706',1100.87')	(5545818.5880',3833793.3753')

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY	DATE	REVISION

DRAWN BY:

CHK'D BY:

PROJECT NUMBER: 21-03-22-01

DATE: 5/01/2021

SHEET No: 91

CAMPPAD TRAVERSE ALIGNMENT CONTROL (CONT.)

CAMPPAD #31

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	17.49'		S14° 45' 43"W	0+00.00'	0+17.49'				(5545956.8719',3833497.8922',1098.36')	(5545952.4153',3833480.9793',1098.77')	
2	Line	19.00'		S14° 45' 43"W	0+17.49'	0+36.49'				(5545952.4153',3833480.9793',1098.77')	(5545947.5740',3833462.6065',1097.10')	
3	Line	13.89'		S44° 58' 53"E	0+36.49'	0+50.38'				(5545947.5740',3833462.6065',1097.10')	(5545957.3943',3833452.7799',1096.60')	
4	Line	24.00'		S14° 45' 43"W	0+50.38'	0+74.38'				(5545957.3943',3833452.7799',1096.60')	(5545951.2790',3833429.5721',1095.60')	
5	Line	24.00'		N75° 14' 17"W	0+74.38'	0+98.38'				(5545951.2790',3833429.5721',1095.60')	(5545928.0712',3833435.6874',1096.10')	
6	Line	31.00'		N14° 45' 43"E	0+98.38'	1+29.38'				(5545928.0712',3833435.6874',1096.10')	(5545935.9701',3833465.6641',1097.35')	
7	Line	19.00'		N14° 45' 43"E	1+29.38'	1+48.38'				(5545935.9701',3833465.6641',1097.35')	(5545940.8114',3833484.0370',1099.02')	
8	Curve	21.32'	61.00'		1+48.38'	1+69.70'	20.0247 (d)	21.21'	N49° 12' 58"E	(5545940.8114',3833484.0370',1099.02')	(5545956.8719',3833497.8922',1098.36')	(5545909.6029',3833536.4491')

CAMPPAD #32

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	14.13'	30.00'		0+00.00'	0+14.13'	26.9938 (d)	14.00'	S49° 06' 44"W	(5545926.1044',3833476.2970',1098.85')	(5545915.5178',3833467.1305',1100.75')	(5545939.9062',3833449.6603')
2	Line	10.66'		S35° 36' 55"W	0+14.13'	0+24.79'				(5545915.5178',3833467.1305',1100.75')	(5545909.3099',3833458.4642',1101.00')	
3	Line	19.00'		S35° 36' 55"W	0+24.79'	0+43.79'				(5545909.3099',3833458.4642',1101.00')	(5545898.2455',3833443.0183',1100.00')	
4	Line	13.89'		S24° 07' 42"E	0+43.79'	0+57.69'				(5545898.2455',3833443.0183',1100.00')	(5545903.9244',3833430.3396',1099.50')	
5	Line	24.00'		S35° 36' 55"W	0+57.69'	0+81.69'				(5545903.9244',3833430.3396',1099.50')	(5545889.9483',3833410.8289',1099.25')	
6	Line	24.00'		N54° 23' 05"W	0+81.69'	1+05.69'				(5545889.9483',3833410.8289',1099.25')	(5545870.4376',3833424.8050',1100.25')	
7	Line	31.00'		N35° 36' 55"E	1+05.69'	1+36.69'				(5545870.4376',3833424.8050',1100.25')	(5545888.4901',3833450.0064',1100.25')	
8	Line	19.00'		N35° 36' 55"E	1+36.69'	1+55.69'				(5545888.4901',3833450.0064',1100.25')	(5545899.5545',3833465.4523',1101.50')	
9	Curve	17.82'	61.00'		1+55.69'	1+73.51'	16.7419 (d)	17.76'	N70° 58' 48"E	(5545899.5545',3833465.4523',1101.50')	(5545916.3458',3833471.2406',1100.52')	(5545888.2822',3833525.4017')
10	Line	10.99'		N62° 36' 32"E	1+73.51'	1+84.50'				(5545916.3458',3833471.2406',1100.52')	(5545926.1044',3833476.2970',1098.85')	

CAMPPAD #33

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	29.58'	35.00'		0+00.00'	0+29.58'	48.4231 (d)	28.71'	S31° 32' 14"E	(5545798.8370',3833625.3032',1109.86')	(5545813.8526',3833600.8358',1109.00')	(5545833.5513',3833629.7661')
2	Curve	39.76'	112.00'		0+29.58'	0+69.34'	20.3378 (d)	39.55'	S45° 34' 48"E	(5545813.8526',3833600.8358',1109.00')	(5545842.0984',3833573.1561',1107.25')	(5545750.8167',3833508.2590')
3	Line	7.29'		S35° 24' 40"E	0+69.34'	0+76.63'				(5545842.0984',3833573.1561',1107.25')	(5545846.3249',3833567.2114',1107.00')	
4	Line	13.89'		N84° 50' 43"E	0+76.63'	0+90.52'				(5545846.3249',3833567.2114',1107.00')	(5545860.1611',3833568.4595',1106.75')	
5	Line	24.00'		S35° 24' 40"E	0+90.52'	1+14.52'				(5545860.1611',3833568.4595',1106.75')	(5545874.0677',3833548.8992',1106.25')	
6	Line	24.00'		S54° 35' 20"W	1+14.52'	1+38.52'				(5545874.0677',3833548.8992',1106.25')	(5545854.5073',3833534.9926',1106.25')	
7	Line	31.00'		N35° 24' 40"W	1+38.52'	1+69.52'				(5545854.5073',3833534.9926',1106.25')	(5545836.5447',3833560.2581',1107.25')	
8	Line	7.29'		N35° 24' 40"W	1+69.52'	1+76.82'				(5545836.5447',3833560.2581',1107.25')	(5545832.3182',3833566.2029',1107.50')	
9	Curve	38.26'	100.00'		1+76.82'	2+15.07'	21.9194 (d)	38.02'	N46° 22' 15"W	(5545832.3182',3833566.2029',1107.50')	(5545804.7959',3833592.4388',1109.05')	(5545750.8167',3833508.2590')
10	Curve	23.77'	164.00'		2+15.07'	2+38.84'	8.3047 (d)	23.75'	N11° 28' 41"W	(5545804.7959',3833592.4388',1109.05')	(5545800.0698',3833615.7139',1109.64')	(5545962.7311',3833636.6256')
11	Line	9.67'		N7° 19' 33"W	2+38.84'	2+48.51'				(5545800.0698',3833615.7139',1109.64')	(5545798.8370',3833625.3032',1109.86')	

CAMPPAD #34

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	24.48'	30.00'		0+00.00'	0+24.48'	46.7531 (d)	23.81'	S30° 42' 08"E	(5545794.7505',3833657.0901',1110.60')	(5545806.9054',3833636.6207',1109.85')	(5545824.5056',3833660.9155')
2	Line	27.32'		S54° 04' 44"E	0+24.48'	0+51.80'				(5545806.9054',3833636.6207',1109.85')	(5545829.0296',3833620.5930',1108.50')	
3	Line	13.89'		N66° 10' 39"E	0+51.80'	0+65.69'				(5545829.0296',3833620.5930',1108.50')	(5545841.7384',3833626.2043',1108.00')	
4	Line	24.00'		S54° 04' 44"E	0+65.69'	0+89.69'				(5545841.7384',3833626.2043',1108.00')	(5545861.1743',3833612.1242',1107.50')	
5	Line	24.00'		S35° 55' 16"W	0+89.69'	1+13.69'				(5545861.1743',3833612.1242',1107.50')	(5545847.0942',3833592.6884',1107.50')	
6	Line	31.00'		N54° 04' 44"W	1+13.69'	1+44.69'				(5545847.0942',3833592.6884',1107.50')	(5545821.9896',3833610.8751',1108.50')	
7	Line	29.00'		N54° 04' 10"W	1+44.69'	1+73.70'				(5545821.9896',3833610.8751',1108.50')	(5545798.5038',3833627.8951',1109.92')	
8	Line	29.44'		N7° 19' 33"W	1+73.70'	2+03.13'				(5545798.5038',3833627.8951',1109.92')	(5545794.7505',3833657.0901',1110.60')	

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:

CHK'D BY:

PROJECT NUMBER: 21-03-22-01

DATE: 5/01/2021

SHEET No:

CAMPPAD TRAVERSE ALIGNMENT CONTROL (CONT.)

CAMPPAD #35

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	21.01'	30.00'		0+00.00'	0+21.01'	40.1184 (d)	20.58'	S27° 16' 00"E	(5545787.6037',3833712.6839',1111.71')	(5545797.0318',3833694.3912',1111.05')	(5545817.3666',3833716.4478')
2	Line	27.38'		S47° 19' 33"E	0+21.01'	0+48.39'				(5545797.0318',3833694.3912',1111.05')	(5545817.1631',3833675.8313',1109.75')	
3	Line	13.89'		N72° 55' 50"E	0+48.39'	0+62.28'				(5545817.1631',3833675.8313',1109.75')	(5545830.4436',3833679.9092',1109.25')	
4	Line	24.00'		S47° 19' 33"E	0+62.28'	0+86.28'				(5545830.4436',3833679.9092',1109.25')	(5545848.0889',3833663.6413',1108.25')	
5	Line	24.00'		S42° 40' 27"W	0+86.28'	1+10.28'				(5545848.0889',3833663.6413',1108.25')	(5545831.8210',3833645.9960',1108.75')	
6	Line	31.00'		N47° 19' 33"W	1+10.28'	1+41.28'				(5545831.8210',3833645.9960',1108.75')	(5545809.0292',3833667.0087',1109.75')	
7	Line	24.00'		N47° 19' 33"W	1+41.28'	1+65.28'				(5545809.0292',3833667.0087',1109.75')	(5545791.3839',3833683.2765',1111.21')	
8	Line	29.26'		N7° 19' 33"W	1+65.28'	1+94.54'				(5545791.3839',3833683.2765',1111.21')	(5545787.6530',3833712.2967',1111.71')	
9	Line	0.39'		N7° 16' 00"W	1+94.54'	1+94.93'				(5545787.6530',3833712.2967',1111.71')	(5545787.6037',3833712.6839',1111.71')	

CAMPPAD #36

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	23.56'	30.00'		0+00.00'	0+23.56'	45.0000 (d)	22.96'	S20° 57' 24"E	(5545787.0900',3833775.3078',1112.38')	(5545795.3023',3833753.8657',1111.80')	(5545817.0791',3833774.4999')
2	Line	29.06'		S43° 27' 24"E	0+23.56'	0+52.62'				(5545795.3023',3833753.8657',1111.80')	(5545815.2912',3833732.7699',1110.00')	
3	Line	13.89'		N76° 47' 59"E	0+52.62'	0+66.52'				(5545815.2912',3833732.7699',1110.00')	(5545828.8166',3833735.9423',1109.50')	
4	Line	24.00'		S43° 27' 24"E	0+66.52'	0+90.52'				(5545828.8166',3833735.9423',1109.50')	(5545845.3240',3833718.5208',1108.50')	
5	Line	24.00'		S46° 32' 36"W	0+90.52'	1+14.52'				(5545845.3240',3833718.5208',1108.50')	(5545827.9025',3833702.0135',1109.00')	
6	Line	31.00'		N43° 27' 24"W	1+14.52'	1+45.52'				(5545827.9025',3833702.0135',1109.00')	(5545806.5805',3833724.5162',1110.00')	
7	Line	29.49'		N43° 27' 24"W	1+45.52'	1+75.00'				(5545806.5805',3833724.5162',1110.00')	(5545786.2983',3833745.9215',1112.08')	
8	Line	29.40'		N1° 32' 36"E	1+75.00'	2+04.40'				(5545786.2983',3833745.9215',1112.08')	(5545787.0900',3833775.3078',1112.38')	

CAMPPAD #37

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	6.85'		S88° 27' 24"E	0+00.00'	0+06.85'				(5545788.0431',3833810.6874',1112.73')	(5545794.8861',3833810.5030',1112.75')	
2	Line	3.65'		S38° 27' 24"E	0+06.85'	0+10.50'				(5545794.8861',3833810.5030',1112.75')	(5545797.1570',3833807.6437',1112.62')	
3	Line	24.00'		S38° 27' 24"E	0+10.50'	0+34.50'				(5545797.1570',3833807.6437',1112.62')	(5545812.0832',3833788.8499',1111.00')	
4	Line	13.89'		N81° 47' 59"E	0+34.50'	0+48.39'				(5545812.0832',3833788.8499',1111.00')	(5545825.8336',3833790.8314',1110.50')	
5	Line	24.00'		S38° 27' 24"E	0+48.39'	0+72.39'				(5545825.8336',3833790.8314',1110.50')	(5545840.7598',3833772.0376',1109.50')	
6	Line	24.00'		S51° 32' 36"W	0+72.39'	0+96.39'				(5545840.7598',3833772.0376',1109.50')	(5545821.9659',3833757.1114',1110.00')	
7	Line	31.00'		N38° 27' 24"W	0+96.39'	1+27.39'				(5545821.9659',3833757.1114',1110.00')	(5545802.6862',3833781.3868',1111.00')	
8	Line	24.00'		N38° 27' 24"W	1+27.39'	1+51.39'				(5545802.6862',3833781.3868',1111.00')	(5545787.7601',3833800.1807',1112.62')	
9	Line	10.51'		N1° 32' 36"E	1+51.39'	1+61.90'				(5545787.7601',3833800.1807',1112.62')	(5545788.0431',3833810.6874',1112.73')	

CAMPPAD #38

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	27.38'	25.00'		0+00.00'	0+27.38'	62.7450 (d)	26.03'	N31° 05' 16"E	(5545788.5896',3833830.9718',1112.93')	(5545802.0302',3833853.2633',1113.00')	(5545777.0305',3833853.1391')
2	Line	5.00'		S89° 42' 55"W	0+27.38'	0+32.38'				(5545802.0302',3833853.2633',1113.00')	(5545797.0302',3833853.2385',1113.05')	
3	Line	5.00'		N0° 17' 05"W	0+32.38'	0+37.38'				(5545797.0302',3833853.2385',1113.05')	(5545797.0054',3833858.2384',1113.10')	
4	Line	5.00'		N89° 42' 55"E	0+37.38'	0+42.38'				(5545797.0054',3833858.2384',1113.10')	(5545802.0053',3833858.2633',1113.05')	
5	Line	23.85'		N0° 17' 05"W	0+42.38'	0+66.22'				(5545802.0053',3833858.2633',1113.05')	(5545801.8868',3833882.1085',1113.25')	
6	Curve	12.79'	25.00'		0+66.22'	0+79.01'	29.3067 (d)	12.65'	N14° 56' 16"W	(5545801.8868',3833882.1085',1113.25')	(5545798.6264',3833894.3296',1113.45')	(5545776.8871',3833881.9844')
7	Line	18.31'		N29° 35' 29"W	0+79.01'	0+97.32'				(5545798.6264',3833894.3296',1113.45')	(5545789.5860',3833910.2492',1113.73')	
8	Line	2.61'		N0° 17' 05"W	0+97.32'	0+99.93'				(5545789.5860',3833910.2492',1113.73')	(5545789.5730',3833912.8639',1113.77')	
9	Curve	22.78'	10.00'		0+99.93'	1+22.71'	130.5032 (d)	18.16'	N64° 58' 00"E	(5545789.5730',3833912.8639',1113.77')	(5545806.0299',3833920.5495',1113.48')	(5545799.5729',3833912.9136')
10	Line	1.78'		S49° 46' 54"E	1+22.71'	1+24.49'				(5545806.0299',3833920.5495',1113.48')	(5545807.3894',3833919.3999',1113.41')	
11	Line	17.47'		S29° 35' 29"E	1+24.49'	1+41.96'				(5545807.3894',3833919.3999',1113.41')	(5545816.0178',3833904.2058',1113.25')	
12	Curve	20.86'	45.00'		1+41.96'	1+62.83'	26.5635 (d)	20.68'	S16° 18' 34"E	(5545816.0178',3833904.2058',1113.25')	(5545821.8243',3833884.3612',1113.05')	(5545776.8871',3833881.9844')
13	Line	9.92'		S45° 35' 18"E	1+62.83'	1+72.75'				(5545821.8243',3833884.3612',1113.05')	(5545828.9104',3833877.4191',1112.90')	

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:

PROJECT NUMBER: 21-03-22-01

CHK'D BY:

DATE: 5/01/2021

SHEET No: 93

CAMPPAD TRAVERSE ALIGNMENT CONTROL (CONT.)

CAMPPAD #38 (CONT)

14	Line	24.02'		S0° 17' 05"E	1+72.75'	1+96.77'				(5545828.9104',3833877.4191',1112.90')	(5545829.0298',3833853.3975',1112.60')	
15	Line	7.00'		S89° 42' 55"W	1+96.77'	2+03.77'				(5545829.0298',3833853.3975',1112.60')	(5545822.0299',3833853.3627',1112.70')	
16	Curve	46.95'	45.00'		2+03.77'	2+50.71'	59.7724 (d)	44.85'	S29° 36' 05"W	(5545822.0299',3833853.3627',1112.70')	(5545799.8781',3833814.3707',1112.55')	(5545777.0305',3833853.1391')
17	Curve	6.33'	25.00'		2+50.71'	2+57.05'	14.5115 (d)	6.31'	S52° 13' 55"W	(5545799.8781',3833814.3707',1112.55')	(5545794.8861',3833810.5030',1112.75')	(5545812.5712',3833792.8327')
18	Line	6.85'		N88° 27' 24"W	2+57.05'	2+63.89'				(5545794.8861',3833810.5030',1112.75')	(5545788.0431',3833810.6874',1112.73')	
19	Line	20.29'		N1° 32' 36"E	2+63.89'	2+84.18'				(5545788.0431',3833810.6874',1112.73')	(5545788.5896',3833830.9718',1112.93')	

CAMPPAD #39

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	20.59'		S8° 36' 18"W	0+00.00'	0+20.59'				(5545856.5907',3833453.9761',1103.48')	(5545853.5101',3833433.6187',1102.90')	
2	Line	19.00'		S8° 36' 18"W	0+20.59'	0+39.59'				(5545853.5101',3833433.6187',1102.90')	(5545850.6673',3833414.8326',1101.50')	
3	Line	13.89'		S51° 08' 19"E	0+39.59'	0+53.48'				(5545850.6673',3833414.8326',1101.50')	(5545861.4848',3833406.1159',1101.00')	
4	Line	24.00'		S8° 36' 18"W	0+53.48'	0+77.48'				(5545861.4848',3833406.1159',1101.00')	(5545857.8939',3833382.3861',1100.50')	
5	Line	24.00'		N81° 23' 42"W	0+77.48'	1+01.48'				(5545857.8939',3833382.3861',1100.50')	(5545834.1641',3833385.9770',1100.50')	
6	Line	31.00'		N8° 36' 18"E	1+01.48'	1+32.48'				(5545834.1641',3833385.9770',1100.50')	(5545838.8024',3833416.6281',1102.00')	
7	Line	19.00'		N8° 36' 18"E	1+32.48'	1+51.48'				(5545838.8024',3833416.6281',1102.00')	(5545841.6452',3833435.4142',1103.38')	
8	Curve	18.46'	57.50'		1+51.48'	1+69.95'	18.3981 (d)	18.38'	N40° 55' 04"E	(5545841.6452',3833435.4142',1103.38')	(5545853.6865',3833449.3064',1103.50')	(5545804.7747',3833479.5370')
9	Line	4.62'		N31° 43' 07"E	1+69.95'	1+74.57'				(5545853.6865',3833449.3064',1103.50')	(5545856.1170',3833453.2388',1103.50')	
10	Curve	0.88'	25.00'		1+74.57'	1+75.44'	2.0086 (d)	0.88'	N32° 43' 22"E	(5545856.1170',3833453.2388',1103.50')	(5545856.5907',3833453.9761',1103.48')	(5545877.3830',3833440.0952')

CAMPPAD #40

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	23.52'		S41° 54' 40"W	0+00.00'	0+23.52'				(5545837.2042',3833432.0545',1103.33')	(5545821.4932',3833414.5511',1102.88')	
2	Line	24.00'		S41° 54' 40"W	0+23.52'	0+47.52'				(5545821.4932',3833414.5511',1102.88')	(5545805.4617',3833396.6908',1102.00')	
3	Line	13.89'		S17° 49' 57"E	0+47.52'	0+61.41'				(5545805.4617',3833396.6908',1102.00')	(5545809.7161',3833383.4658',1101.50')	
4	Line	24.00'		S41° 54' 40"W	0+61.41'	0+85.41'				(5545809.7161',3833383.4658',1101.50')	(5545793.6847',3833365.6054',1100.50')	
5	Line	24.00'		N48° 05' 20"W	0+85.41'	1+09.41'				(5545793.6847',3833365.6054',1100.50')	(5545775.8243',3833381.6368',1101.25')	
6	Line	31.00'		N41° 54' 40"E	1+09.41'	1+40.41'				(5545775.8243',3833381.6368',1101.25')	(5545796.5316',3833404.7065',1102.25')	
7	Line	24.00'		N41° 54' 40"E	1+40.41'	1+64.41'				(5545796.5316',3833404.7065',1102.25')	(5545812.5630',3833422.5669',1103.13')	
8	Curve	26.64'	57.50'		1+64.41'	1+91.06'	26.5477 (d)	26.40'	N68° 56' 30"E	(5545812.5630',3833422.5669',1103.13')	(5545837.2042',3833432.0545',1103.33')	(5545804.7747',3833479.5370')

CAMPPAD #41

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	15.70'	30.00'		0+00.00'	0+15.70'	29.9830 (d)	15.52'	S72° 45' 37"W	(5545791.6558',3833421.4917',1102.62')	(5545776.8326',3833416.8919',1101.80')	(5545792.8326',3833391.5148')
2	Line	12.77'		S57° 46' 08"W	0+15.70'	0+28.46'				(5545776.8326',3833416.8919',1101.80')	(5545766.0344',3833410.0838',1100.88')	
3	Line	14.50'		S57° 46' 08"W	0+28.46'	0+42.96'				(5545766.0344',3833410.0838',1100.88')	(5545753.7688',3833402.3504',1099.25')	
4	Line	14.50'		S57° 46' 08"W	0+42.96'	0+57.46'				(5545753.7688',3833402.3504',1099.25')	(5545741.5032',3833394.6170',1098.50')	
5	Line	13.89'		S1° 58' 29"E	0+57.46'	0+71.36'				(5545741.5032',3833394.6170',1098.50')	(5545741.9819',3833380.7328',1098.00')	
6	Line	24.00'		S57° 46' 08"W	0+71.36'	0+95.36'				(5545741.9819',3833380.7328',1098.00')	(5545721.6802',3833367.9327',1097.00')	
7	Line	24.00'		N32° 13' 52"W	0+95.36'	1+19.36'				(5545721.6802',3833367.9327',1097.00')	(5545708.8802',3833388.2344',1097.25')	
8	Line	31.00'		N57° 46' 08"E	1+19.36'	1+50.36'				(5545708.8802',3833388.2344',1097.25')	(5545735.1032',3833404.7678',1098.75')	
9	Line	14.50'		N57° 46' 08"E	1+50.36'	1+64.86'				(5545735.1032',3833404.7678',1098.75')	(5545747.3688',3833412.5012',1099.50')	
10	Line	14.50'		N57° 46' 08"E	1+64.86'	1+79.36'				(5545747.3688',3833412.5012',1099.50')	(5545759.6344',3833420.2346',1101.13')	
11	Line	32.05'		N87° 45' 07"E	1+79.36'	2+11.40'				(5545759.6344',3833420.2346',1101.13')	(5545791.6558',3833421.4917',1102.62')	

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:

CHK'D BY:

PROJECT NUMBER: 21-03-22-01

DATE: 5/01/2021

SHEET No: 94

CAMPPAD TRAVERSE ALIGNMENT CONTROL (CONT.)

CAMPPAD #42

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	17.82'	30.00'		0+00.00'	0+17.82'	34.0244 (d)	17.55'	S89° 05' 51"W	(5545739.8590',3833422.6415',1100.27')	(5545722.3066',3833422.3649',1099.50')	(5545731.5347',3833393.8195')
2	Line	15.62'		S72° 05' 07"W	0+17.82'	0+33.44'				(5545722.3066',3833422.3649',1099.50')	(5545707.4412',3833417.5593',1097.65')	
3	Line	15.37'		S72° 05' 07"W	0+33.44'	0+48.81'				(5545707.4412',3833417.5593',1097.65')	(5545692.8121',3833412.8301',1096.50')	
4	Line	13.89'		S12° 20' 30"W	0+48.81'	0+62.71'				(5545692.8121',3833412.8301',1096.50')	(5545689.8427',3833399.2587',1096.00')	
5	Line	24.00'		S72° 05' 07"W	0+62.71'	0+86.71'				(5545689.8427',3833399.2587',1096.00')	(5545667.0063',3833391.8762',1095.00')	
6	Line	24.00'		N17° 54' 53"W	0+86.71'	1+10.71'				(5545667.0063',3833391.8762',1095.00')	(5545659.6239',3833414.7126',1095.75')	
7	Line	31.00'		N72° 05' 07"E	1+10.71'	1+41.71'				(5545659.6239',3833414.7126',1095.75')	(5545689.1208',3833424.2482',1096.75')	
8	Line	15.37'		N72° 05' 07"E	1+41.71'	1+57.08'				(5545689.1208',3833424.2482',1096.75')	(5545703.7500',3833428.9775',1097.90')	
9	Line	15.37'		N72° 05' 07"E	1+57.08'	1+72.45'				(5545703.7500',3833428.9775',1097.90')	(5545718.3791',3833433.7067',1099.74')	
10	Curve	24.32'	62.50'		1+72.45'	1+96.77'	22.2908 (d)	24.16'	S62° 44' 42"E	(5545718.3791',3833433.7067',1099.74')	(5545739.8590',3833422.6415',1100.27')	(5545757.2012',3833482.6873')

CAMPPAD #43

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	22.29'		N68° 12' 25"W	0+00.00'	0+22.29'				(5545718.3791',3833433.7067',1099.74')	(5545697.6794',3833441.9830',1099.53')	
2	Line	24.00'		N68° 12' 25"W	0+22.29'	0+46.29'				(5545697.6794',3833441.9830',1099.53')	(5545675.3947',3833450.8931',1097.75')	
3	Line	13.89'		S52° 02' 58"W	0+46.29'	0+60.19'				(5545675.3947',3833450.8931',1097.75')	(5545664.4399',3833442.3495',1097.25')	
4	Line	24.00'		N68° 12' 25"W	0+60.19'	0+84.19'				(5545664.4399',3833442.3495',1097.25')	(5545642.1551',3833451.2596',1096.25')	
5	Line	24.00'		N21° 47' 35"E	0+84.19'	1+08.19'				(5545642.1551',3833451.2596',1096.25')	(5545651.0652',3833473.5443',1097.00')	
6	Line	31.00'		S68° 12' 25"E	1+08.19'	1+39.19'				(5545651.0652',3833473.5443',1097.00')	(5545679.8497',3833462.0355',1098.00')	
7	Line	24.00'		S68° 12' 25"E	1+39.19'	1+63.19'				(5545679.8497',3833462.0355',1098.00')	(5545702.1345',3833453.1254',1099.78')	
8	Curve	25.49'	62.50'		1+63.19'	1+88.68'	23.3710 (d)	25.32'	S39° 54' 50"E	(5545702.1345',3833453.1254',1099.78')	(5545718.3791',3833433.7067',1099.74')	(5545757.2012',3833482.6873')

CAMPPAD #44

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	22.00'		N54° 49' 53"W	0+00.00'	0+22.00'				(5545770.9925',3833435.6885',1102.08')	(5545753.0084',3833448.3602',1103.40')	
2	Line	31.00'		N54° 49' 53"W	0+22.00'	0+53.00'				(5545753.0084',3833448.3602',1103.40')	(5545727.6670',3833466.2156',1102.65')	
3	Line	21.89'		N54° 49' 53"W	0+53.00'	0+74.89'				(5545727.6670',3833466.2156',1102.65')	(5545709.7738',3833478.8232',1100.71')	
4	Line	29.44'		N8° 04' 26"W	0+74.89'	1+04.33'				(5545709.7738',3833478.8232',1100.71')	(5545705.6386',3833507.9734',1101.79')	
5	Curve	24.48'	30.00'		1+04.33'	1+28.81'	46.7575 (d)	23.81'	S31° 27' 10"E	(5545705.6386',3833507.9734',1101.79')	(5545718.0617',3833487.6631',1101.24')	(5545735.3412',3833512.1870')
6	Line	20.21'		S54° 49' 53"E	1+28.81'	1+49.02'				(5545718.0617',3833487.6631',1101.24')	(5545734.5788',3833476.0252',1103.03')	
7	Line	12.00'		N35° 10' 07"E	1+49.02'	1+61.02'				(5545734.5788',3833476.0252',1103.03')	(5545741.4906',3833485.8347',1103.40')	
8	Line	24.00'		S54° 49' 53"E	1+61.02'	1+85.02'				(5545741.4906',3833485.8347',1103.40')	(5545761.1097',3833472.0111',1104.15')	
9	Line	13.89'		S4° 54' 43"W	1+85.02'	1+98.91'				(5545761.1097',3833472.0111',1104.15')	(5545759.9202',3833458.1697',1103.78')	
10	Line	22.00'		S54° 49' 53"E	1+98.91'	2+20.91'				(5545759.9202',3833458.1697',1103.78')	(5545777.9043',3833445.4981',1102.50')	
11	Line	5.54'		S54° 49' 53"E	2+20.91'	2+26.45'				(5545777.9043',3833445.4981',1102.50')	(5545782.4340',3833442.3064',1102.50')	
12	Curve	19.58'	30.00'		2+26.45'	2+46.03'	37.3997 (d)	19.24'	S73° 31' 53"E	(5545782.4340',3833442.3064',1102.50')	(5545800.8815',3833436.8530',1103.23')	(5545799.7135',3833466.8303')
13	Line	29.91'		S87° 46' 08"W	2+46.03'	2+75.95'				(5545800.8815',3833436.8530',1103.23')	(5545770.9925',3833435.6885',1102.08')	

CAMPPAD #45

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	23.50'	30.00'		0+00.00'	0+23.50'	44.8781 (d)	22.90'	N30° 30' 47"W	(5545694.4828',3833479.8162',1100.52')	(5545682.8546',3833499.5466',1101.10')	(5545664.7801',3833475.6027',(
2	Line	23.66'		N52° 57' 07"W	0+23.50'	0+47.16'				(5545682.8546',3833499.5466',1101.10')	(5545663.9691',3833513.8027',1100.00')	
3	Line	13.89'		S67° 18' 16"W	0+47.16'	0+61.05'				(5545663.9691',3833513.8027',1100.00')	(5545651.1524',3833508.4425',1099.50')	
4	Line	24.00'		N52° 57' 07"W	0+61.05'	0+85.05'				(5545651.1524',3833508.4425',1099.50')	(5545631.9972',3833522.9021',1098.50')	
5	Line	24.00'		N37° 02' 53"E	0+85.05'	1+09.05'				(5545631.9972',3833522.9021',1098.50')	(5545646.4568',3833542.0572',1099.00')	
6	Line	31.00'		S52° 57' 07"E	1+09.05'	1+40.05'				(5545646.4568',3833542.0572',1099.00')	(5545671.1989',3833523.3802',1100.25')	
7	Line	24.00'		S52° 57' 07"E	1+40.05'	1+64.05'				(5545671.1989',3833523.3802',1100.25')	(5545690.3541',3833508.9206',1101.60')	
8	Line	29.40'		S8° 04' 26"E	1+64.05'	1+93.45'				(5545690.3541',3833508.9206',1101.60')	(5545694.4828',3833479.8162',1100.52')	

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:
CHK'D BY:
PROJECT NUMBER: 21-03-22-01
DATE: 5/01/2021

CAMPPAD TRAVERSE ALIGNMENT CONTROL (CONT.)

CAMPPAD #46

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	16.72'	30.00'		0+00.00'	0+16.72'	31.9259 (d)	16.50'	N24° 02' 11"W	(5545687.7742',3833527.1066',1102.28')	(5545681.0531',3833542.1767',1102.75')	(5545658.0716',3833522.8933')
2	Line	10.68'		N40° 00' 00"W	0+16.72'	0+27.39'				(5545681.0531',3833542.1767',1102.75')	(5545674.1893',3833550.3567',1103.05')	
3	Line	24.00'		N40° 00' 00"W	0+27.39'	0+51.39'				(5545674.1893',3833550.3567',1103.05')	(5545658.7624',3833568.7418',1102.00')	
4	Line	13.89'		S80° 15' 23"W	0+51.39'	0+65.29'				(5545658.7624',3833568.7418',1102.00')	(5545645.0703',3833566.3906',1101.50')	
5	Line	24.00'		N40° 00' 00"W	0+65.29'	0+89.29'				(5545645.0703',3833566.3906',1101.50')	(5545629.6434',3833584.7757',1101.00')	
6	Line	24.00'		N50° 00' 00"E	0+89.29'	1+13.29'				(5545629.6434',3833584.7757',1101.00')	(5545648.0285',3833600.2026',1102.00')	
7	Line	31.00'		S40° 00' 00"E	1+13.29'	1+44.29'				(5545648.0285',3833600.2026',1102.00')	(5545667.9549',3833576.4552',1102.25')	
8	Line	24.00'		S40° 00' 00"E	1+44.29'	1+68.29'				(5545667.9549',3833576.4552',1102.25')	(5545683.3818',3833558.0702',1103.42')	
9	Line	31.27'		S8° 04' 26"E	1+68.29'	1+99.56'				(5545683.3818',3833558.0702',1103.42')	(5545687.7742',3833527.1066',1102.28')	

CAMPPAD #47

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	48.52'	35.00'		0+00.00'	0+48.52'	79.4323 (d)	44.73'	S47° 47' 25"E	(5545697.7221',3833563.7795',1103.85')	(5545730.8523',3833533.7285',1105.90')	(5545732.3751',3833568.6953')
2	Line	6.18'		S87° 30' 23"E	0+48.52'	0+54.70'				(5545730.8523',3833533.7285',1105.90')	(5545737.0257',3833533.4596',1105.75')	
3	Line	12.00'		N2° 29' 37"E	0+54.70'	0+66.70'				(5545737.0257',3833533.4596',1105.75')	(5545737.5478',3833545.4482',1106.00')	
4	Line	24.00'		S87° 30' 23"E	0+66.70'	0+90.70'				(5545737.5478',3833545.4482',1106.00')	(5545761.5251',3833544.4040',1107.00')	
5	Line	13.89'		S27° 45' 46"E	0+90.70'	1+04.59'				(5545761.5251',3833544.4040',1107.00')	(5545767.9963',3833532.1108',1106.75')	
6	Line	35.81'		S87° 30' 23"E	1+04.59'	1+40.41'				(5545767.9963',3833532.1108',1106.75')	(5545803.7769',3833530.5525',1108.00')	
7	Line	6.36'		S87° 30' 23"E	1+40.41'	1+46.77'				(5545803.7769',3833530.5525',1108.00')	(5545810.1346',3833530.2757',1108.10')	
8	Curve	19.91'	186.00'		1+46.77'	1+66.68'	6.1324 (d)	19.90'	S37° 56' 25"E	(5545810.1346',3833530.2757',1108.10')	(5545822.3689',3833514.5829',1107.36')	(5545962.7311',3833636.6256')
9	Curve	16.31'	89.00'		1+66.68'	1+82.99'	10.5016 (d)	16.29'	S35° 45' 20"E	(5545822.3689',3833514.5829',1107.36')	(5545831.8875',3833501.3634',1106.32')	(5545755.2063',3833456.1861')
10	Curve	34.82'	35.00'		1+82.99'	2+17.81'	57.0015 (d)	33.40'	N59° 00' 20"W	(5545831.8875',3833501.3634',1106.32')	(5545803.2548',3833518.5639',1107.75')	(5545801.7319',3833483.5971')
11	Line	35.81'		N87° 30' 23"W	2+17.81'	2+53.63'				(5545803.2548',3833518.5639',1107.75')	(5545767.4742',3833520.1222',1106.50')	
12	Line	31.00'		N87° 30' 23"W	2+53.63'	2+84.63'				(5545767.4742',3833520.1222',1106.50')	(5545736.5035',3833521.4710',1105.50')	
13	Line	6.18'		N87° 30' 23"W	2+84.63'	2+90.81'				(5545736.5035',3833521.4710',1105.50')	(5545730.3302',3833521.7398',1105.98')	
14	Curve	30.81'	47.00'		2+90.81'	3+21.62'	37.5640 (d)	30.27'	N68° 43' 28"W	(5545730.3302',3833521.7398',1105.98')	(5545702.1279',3833532.7217',1102.70')	(5545732.3751',3833568.6953')
15	Line	31.37'		N8° 04' 26"W	3+21.62'	3+52.99'				(5545702.1279',3833532.7217',1102.70')	(5545697.7221',3833563.7795',1103.85')	

CAMPPAD #48

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	17.48'	30.00'		0+00.00'	0+17.48'	33.3901 (d)	17.24'	N24° 46' 09"W	(5545680.9951',3833575.4039',1104.06')	(5545673.7736',3833591.0549',1104.70')	(5545651.2925',3833571.1904')
2	Line	9.34'		N41° 27' 51"W	0+17.48'	0+26.82'				(5545673.7736',3833591.0549',1104.70')	(5545667.5903',3833598.0527',1104.70')	
3	Line	14.50'		N41° 27' 51"W	0+26.82'	0+41.32'				(5545667.5903',3833598.0527',1104.70')	(5545657.9892',3833608.9185',1104.25')	
4	Line	14.50'		N41° 27' 51"W	0+41.32'	0+55.82'				(5545657.9892',3833608.9185',1104.25')	(5545648.3880',3833619.7844',1104.50')	
5	Line	13.89'		S78° 47' 32"W	0+55.82'	0+69.71'				(5545648.3880',3833619.7844',1104.50')	(5545634.7605',3833617.0842',1104.00')	
6	Line	24.00'		N41° 27' 51"W	0+69.71'	0+93.71'				(5545634.7605',3833617.0842',1104.00')	(5545618.8688',3833635.0691',1103.25')	
7	Line	24.00'		N48° 32' 09"E	0+93.71'	1+17.71'				(5545618.8688',3833635.0691',1103.25')	(5545636.8537',3833650.9607',1104.25')	
8	Line	31.00'		S41° 27' 51"E	1+17.71'	1+48.71'				(5545636.8537',3833650.9607',1104.25')	(5545657.3804',3833627.7302',1104.75')	
9	Line	14.50'		S41° 27' 51"E	1+48.71'	1+63.21'				(5545657.3804',3833627.7302',1104.75')	(5545666.9816',3833616.8643',1104.50')	
10	Line	14.50'		S41° 27' 51"E	1+63.21'	1+77.71'				(5545666.9816',3833616.8643',1104.50')	(5545676.5828',3833605.9985',1105.20')	
11	Line	30.91'		S8° 12' 24"E	1+77.71'	2+08.62'				(5545676.5828',3833605.9985',1105.20')	(5545680.9951',3833575.4039',1104.06')	

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:

PROJECT NUMBER: 21-03-22-01

CHK'D BY:

DATE: 5/01/2021

SHEET No: 96

CAMPPAD TRAVERSE ALIGNMENT CONTROL (CONT.)

CAMPPAD #49

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	27.53'	28.00'		0+00.00'	0+27.53'	56.3412 (d)	26.44'	S36° 14' 43"E	(5545688.5963',3833628.1095',1106.24')	(5545704.2273',3833606.7878',1106.10')	(5545716.3187',3833632.0425')
2	Line	22.47'		S64° 39' 22"E	0+27.53'	0+50.00'				(5545704.2273',3833606.7878',1106.10')	(5545724.5327',3833597.1704',1108.00')	
3	Line	12.00'		N25° 35' 03"E	0+50.00'	0+62.00'				(5545724.5327',3833597.1704',1108.00')	(5545729.7148',3833607.9938',1108.25')	
4	Line	24.00'		S64° 24' 57"E	0+62.00'	0+86.00'				(5545729.7148',3833607.9938',1108.25')	(5545751.3616',3833597.6298',1109.25')	
5	Line	13.89'		S4° 40' 20"E	0+86.00'	0+99.89'				(5545751.3616',3833597.6298',1109.25')	(5545752.4933',3833583.7835',1109.00')	
6	Line	42.70'		S64° 17' 22"E	0+99.89'	1+42.60'				(5545752.4933',3833583.7835',1109.00')	(5545790.9676',3833565.2583',1109.00')	
7	Curve	27.26'	186.00'		1+42.60'	1+69.86'	8.3978 (d)	27.24'	S26° 45' 42"E	(5545790.9676',3833565.2583',1109.00')	(5545803.2320',3833540.9384',1108.40')	(5545962.7311',3833636.6256')
8	Curve	16.35'	28.00'		1+69.86'	1+86.21'	33.4553 (d)	16.12'	N47° 41' 17"W	(5545803.2320',3833540.9384',1108.40')	(5545791.3128',3833551.7886',1108.75')	(5545779.2214',3833526.5339')
9	Line	48.83'		N64° 18' 19"W	1+86.21'	2+35.04'				(5545791.3128',3833551.7886',1108.75')	(5545747.3112',3833572.9601',1108.75')	
10	Line	31.00'		N64° 24' 57"W	2+35.04'	2+66.04'				(5545747.3112',3833572.9601',1108.75')	(5545719.3507',3833586.3470',1107.75')	
11	Line	22.47'		N64° 39' 22"W	2+66.04'	2+88.50'				(5545719.3507',3833586.3470',1107.75')	(5545699.0453',3833595.9644',1105.85')	
12	Line	7.00'		N64° 24' 57"W	2+88.50'	2+95.51'				(5545699.0453',3833595.9644',1105.85')	(5545692.7273',3833598.9893',1105.16')	
13	Line	29.41'		N8° 04' 26"W	2+95.51'	3+24.92'				(5545692.7273',3833598.9893',1105.16')	(5545688.5963',3833628.1095',1106.24')	

CAMPPAD #50

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	22.50'	30.00'		0+00.00'	0+22.50'	42.9632 (d)	21.97'	N28° 09' 37"W	(5545669.4864',3833659.8279',1107.02')	(5545659.1169',3833679.1992',1107.00')	(5545639.6900',3833656.3388')
2	Line	6.47'		N49° 38' 31"W	0+22.50'	0+28.97'				(5545659.1169',3833679.1992',1107.00')	(5545654.1863',3833683.3892',1106.75')	
3	Line	13.68'		N49° 38' 31"W	0+28.97'	0+42.64'				(5545654.1863',3833683.3892',1106.75')	(5545643.7655',3833692.2449',1106.00')	
4	Line	13.89'		S70° 36' 52"W	0+42.64'	0+56.53'				(5545643.7655',3833692.2449',1106.00')	(5545630.6607',3833687.6337',1105.50')	
5	Line	24.00'		N49° 38' 31"W	0+56.53'	0+80.53'				(5545630.6607',3833687.6337',1105.50')	(5545612.3724',3833703.1752',1104.80')	
6	Line	24.00'		N40° 21' 29"E	0+80.53'	1+04.53'				(5545612.3724',3833703.1752',1104.80')	(5545627.9139',3833721.4635',1106.00')	
7	Line	31.00'		S49° 38' 31"E	1+04.53'	1+35.53'				(5545627.9139',3833721.4635',1106.00')	(5545651.5363',3833701.3890',1106.25')	
8	Line	19.00'		S49° 38' 31"E	1+35.53'	1+54.53'				(5545651.5363',3833701.3890',1106.25')	(5545666.0145',3833689.0853',1107.43')	
9	Line	29.46'		S6° 46' 03"E	1+54.53'	1+84.00'				(5545666.0145',3833689.0853',1107.43')	(5545669.4864',3833659.8279',1107.02')	

CAMPPAD #51

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	28.35'	28.00'		0+00.00'	0+28.35'	58.0029 (d)	27.15'	S35° 40' 49"E	(5545678.7582',3833709.6216',1108.16')	(5545694.5941',3833687.5676',1109.00')	(5545706.5682',3833712.8781')
2	Line	15.18'		S64° 40' 55"E	0+28.35'	0+43.52'				(5545694.5941',3833687.5676',1109.00')	(5545708.3121',3833681.0778',1110.12')	
3	Line	12.00'		N25° 19' 05"E	0+43.52'	0+55.52'				(5545708.3121',3833681.0778',1110.12')	(5545713.4438',3833691.9252',1110.50')	
4	Line	24.00'		S64° 40' 55"E	0+55.52'	0+79.52'				(5545713.4438',3833691.9252',1110.50')	(5545735.1386',3833681.6617',1111.40')	
5	Line	13.89'		S4° 56' 18"E	0+79.52'	0+93.41'				(5545735.1386',3833681.6617',1111.40')	(5545736.3345',3833667.8209',1111.00')	
6	Line	33.43'		S64° 40' 55"E	0+93.41'	1+26.84'				(5545736.3345',3833667.8209',1111.00')	(5545766.5515',3833653.5257',1111.00')	
7	Line	7.63'		S64° 40' 55"E	1+26.84'	1+34.47'				(5545766.5515',3833653.5257',1111.00')	(5545773.4470',3833650.2635',1110.95')	
8	Line	29.57'		S7° 19' 33"E	1+34.47'	1+64.04'				(5545773.4470',3833650.2635',1110.95')	(5545777.2172',3833620.9378',1110.26')	
9	Curve	28.03'	28.00'		1+64.04'	1+92.07'	57.3567 (d)	26.87'	N36° 00' 13"W	(5545777.2172',3833620.9378',1110.26')	(5545761.4197',3833642.6783',1110.75')	(5545749.4457',3833617.3678')
10	Line	33.43'		N64° 40' 55"W	1+92.07'	2+25.49'				(5545761.4197',3833642.6783',1110.75')	(5545731.2027',3833656.9735',1110.75')	
11	Line	31.00'		N64° 40' 55"W	2+25.49'	2+56.49'				(5545731.2027',3833656.9735',1110.75')	(5545703.1804',3833670.2305',1109.75')	
12	Line	15.18'		N64° 40' 55"W	2+56.49'	2+71.67'				(5545703.1804',3833670.2305',1109.75')	(5545689.4623',3833676.7203',1108.60')	
13	Line	8.02'		N64° 40' 55"W	2+71.67'	2+79.69'				(5545689.4623',3833676.7203',1108.60')	(5545682.2090',3833680.1517',1107.61')	
14	Line	29.67'		N6° 40' 44"W	2+79.69'	3+09.37'				(5545682.2090',3833680.1517',1107.61')	(5545678.7582',3833709.6216',1108.16')	

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:

PROJECT NUMBER: 21-03-22-01

CHK'D BY:

DATE: 5/01/2021

SHEET No: 97

CAMPPAD TRAVERSE ALIGNMENT CONTROL (CONT.)

CAMPPAD #52

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	17.45'	30.00'		0+00.00'	0+17.45'	33.3213 (d)	17.20'	N23° 20' 22"W	(5545663.9719',3833706.9212',1107.83')	(5545657.1568',3833722.7158',1108.30')	(5545634.1755',3833703.4322')
2	Line	5.69'		N40° 00' 00"W	0+17.45'	0+23.14'				(5545657.1568',3833722.7158',1108.30')	(5545653.5001',3833727.0737',1108.50')	
3	Line	19.00'		N40° 00' 00"W	0+23.14'	0+42.14'				(5545653.5001',3833727.0737',1108.50')	(5545641.2871',3833741.6286',1108.50')	
4	Line	13.89'		S80° 15' 23"W	0+42.14'	0+56.03'				(5545641.2871',3833741.6286',1108.50')	(5545627.5951',3833739.2774',1108.00')	
5	Line	24.00'		N40° 00' 00"W	0+56.03'	0+80.03'				(5545627.5951',3833739.2774',1108.00')	(5545612.1682',3833757.6625',1107.80')	
6	Line	24.00'		N50° 00' 00"E	0+80.03'	1+04.03'				(5545612.1682',3833757.6625',1107.80')	(5545630.5532',3833773.0894',1109.00')	
7	Line	31.00'		S40° 00' 00"E	1+04.03'	1+35.03'				(5545630.5532',3833773.0894',1109.00')	(5545650.4797',3833749.3420',1108.75')	
8	Line	19.00'		S40° 00' 00"E	1+35.03'	1+54.03'				(5545650.4797',3833749.3420',1108.75')	(5545662.6926',3833734.7872',1108.91')	
9	Line	17.36'		S1° 34' 34"E	1+54.03'	1+71.39'				(5545662.6926',3833734.7872',1108.91')	(5545663.1702',3833717.4304',1108.16')	
10	Curve	9.57'	107.50'		1+71.39'	1+80.97'	5.1025 (d)	9.57'	S4° 07' 39"E	(5545663.1702',3833717.4304',1108.16')	(5545663.8591',3833707.8848',1107.86')	(5545770.6296',3833720.3874')
11	Line	0.97'		S6° 40' 44"E	1+80.97'	1+81.94'				(5545663.8591',3833707.8848',1107.86')	(5545663.9719',3833706.9212',1107.83')	

CAMPPAD #53

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	23.66'	28.00'		0+00.00'	0+23.66'	48.4194 (d)	22.96'	S30° 15' 54"E	(5545675.7608',3833787.5514',1111.75')	(5545687.3348',3833767.7169',1111.00')	(5545703.6046',3833790.5050')
2	Line	22.31'		S54° 28' 29"E	0+23.66'	0+45.97'				(5545687.3348',3833767.7169',1111.00')	(5545705.4886',3833754.7558',1111.88')	
3	Line	12.00'		N35° 31' 31"E	0+45.97'	0+57.97'				(5545705.4886',3833754.7558',1111.88')	(5545712.4614',3833764.5221',1112.25')	
4	Line	24.00'		S54° 28' 29"E	0+57.97'	0+81.97'				(5545712.4614',3833764.5221',1112.25')	(5545731.9940',3833750.5765',1113.25')	
5	Line	13.89'		S5° 16' 08"W	0+81.97'	0+95.86'				(5545731.9940',3833750.5765',1113.25')	(5545730.7182',3833736.7428',1113.00')	
6	Line	20.84'		S54° 28' 29"E	0+95.86'	1+16.70'				(5545730.7182',3833736.7428',1113.00')	(5545747.6792',3833724.6333',1112.90')	
7	Line	21.94'		S54° 28' 29"E	1+16.70'	1+38.65'				(5545747.6792',3833724.6333',1112.90')	(5545765.5391',3833711.8820',1112.18')	
8	Curve	2.41'	211.00'		1+38.65'	1+41.05'	0.6540 (d)	2.41'	S6° 59' 56"E	(5545765.5391',3833711.8820',1112.18')	(5545765.8326',3833709.4914',1112.15')	(5545975.1103',3833736.3964')
9	Line	26.17'		S7° 19' 33"E	1+41.05'	1+67.22'				(5545765.8326',3833709.4914',1112.15')	(5545769.1690',3833683.5399',1111.71')	
10	Curve	23.04'	28.00'		1+67.22'	1+90.26'	47.1488 (d)	22.40'	N30° 54' 01"W	(5545769.1690',3833683.5399',1111.71')	(5545757.6673',3833702.7576',1112.30')	(5545741.3975',3833679.9696')
11	Line	20.84'		N54° 28' 29"W	1+90.26'	2+11.10'				(5545757.6673',3833702.7576',1112.30')	(5545740.7064',3833714.8670',1112.65')	
12	Line	20.84'		N54° 28' 29"W	2+11.10'	2+31.94'				(5545740.7064',3833714.8670',1112.65')	(5545723.7455',3833726.9765',1112.75')	
13	Line	31.00'		N54° 28' 29"W	2+31.94'	2+62.94'				(5545723.7455',3833726.9765',1112.75')	(5545698.5159',3833744.9895',1111.50')	
14	Line	26.44'		N54° 28' 29"W	2+62.94'	2+89.38'				(5545698.5159',3833744.9895',1111.50')	(5545676.9947',3833760.3548',1110.45')	
15	Line	16.82'		N1° 34' 34"W	2+89.38'	3+06.20'				(5545676.9947',3833760.3548',1110.45')	(5545676.5321',3833777.1684',1111.27')	
16	Curve	8.40'	107.50'		3+06.20'	3+14.61'	4.4789 (d)	8.40'	N3° 48' 57"W	(5545676.5321',3833777.1684',1111.27')	(5545675.9730',3833785.5511',1111.65')	(5545569.0728',3833774.2114')
17	Line	2.01'		N6° 03' 19"W	3+14.61'	3+16.62'				(5545675.9730',3833785.5511',1111.65')	(5545675.7608',3833787.5514',1111.75')	

CAMPPAD #54

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	18.02'	30.00'		0+00.00'	0+18.02'	34.4244 (d)	17.75'	N22° 47' 16"W	(5545661.1351',3833783.1987',1111.31')	(5545654.2584',3833799.5675',1112.10')	(5545631.2771',3833780.2839')
2	Line	8.67'		N40° 00' 00"W	0+18.02'	0+26.69'				(5545654.2584',3833799.5675',1112.10')	(5545648.6869',3833806.2073',1112.25')	
3	Line	19.00'		N40° 00' 00"W	0+26.69'	0+45.69'				(5545648.6869',3833806.2073',1112.25')	(5545636.4740',3833820.7622',1112.50')	
4	Line	13.89'		S80° 15' 23"W	0+45.69'	0+59.58'				(5545636.4740',3833820.7622',1112.50')	(5545622.7819',3833818.4110',1112.25')	
5	Line	24.00'		N40° 00' 00"W	0+59.58'	0+83.58'				(5545622.7819',3833818.4110',1112.25')	(5545607.3550',3833836.7961',1111.50')	
6	Line	24.00'		N50° 00' 00"E	0+83.58'	1+07.58'				(5545607.3550',3833836.7961',1111.50')	(5545625.7401',3833852.2230',1112.50')	
7	Line	31.00'		S40° 00' 00"E	1+07.58'	1+38.58'				(5545625.7401',3833852.2230',1112.50')	(5545645.6665',3833828.4756',1112.75')	
8	Line	19.00'		S40° 00' 00"E	1+38.58'	1+57.58'				(5545645.6665',3833828.4756',1112.75')	(5545657.8794',3833813.9208',1112.98')	
9	Line	30.12'		S6° 03' 19"E	1+57.58'	1+87.70'				(5545657.8794',3833813.9208',1112.98')	(5545661.0567',3833783.9688',1111.35')	
10	Line	0.77'		S5° 48' 55"E	1+87.70'	1+88.48'				(5545661.0567',3833783.9688',1111.35')	(5545661.1351',3833783.1987',1111.31')	

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY	DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 98

CAMPPAD TRAVERSE ALIGNMENT CONTROL (CONT.)

CAMPPAD #55

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	13.74'		S66° 33' 08"E	0+00.00'	0+13.74'				(5545684.2421',3833813.4679',1113.62')	(5545696.8449',3833808.0017',1113.45')	
2	Line	10.00'		S66° 33' 08"E	0+13.74'	0+23.74'				(5545696.8449',3833808.0017',1113.45')	(5545706.0191',3833804.0226',1113.60')	
3	Line	7.00'		N23° 26' 52"E	0+23.74'	0+30.74'				(5545706.0191',3833804.0226',1113.60')	(5545708.8045',3833810.4446',1113.70')	
4	Line	24.00'		S66° 33' 08"E	0+30.74'	0+54.74'				(5545708.8045',3833810.4446',1113.70')	(5545730.8226',3833800.8946',1113.60')	
5	Line	9.90'		S21° 33' 08"E	0+54.74'	0+64.64'				(5545730.8226',3833800.8946',1113.60')	(5545734.4592',3833791.6873',1113.45')	
6	Line	24.63'		S66° 33' 08"E	0+64.64'	0+89.27'				(5545734.4592',3833791.6873',1113.45')	(5545757.0539',3833781.8873',1113.00')	
7	Line	8.84'		S66° 33' 08"E	0+89.27'	0+98.11'				(5545757.0539',3833781.8873',1113.00')	(5545765.1645',3833778.3695',1112.84')	
8	Line	36.30'		S1° 32' 36"W	0+98.11'	1+34.41'				(5545765.1645',3833778.3695',1112.84')	(5545764.1868',3833742.0788',1112.48')	
9	Curve	1.19'	211.00'		1+34.41'	1+35.60'	0.3232 (d)	1.19'	S1° 22' 54"W	(5545764.1868',3833742.0788',1112.48')	(5545764.1581',3833740.8887',1112.46')	(5545975.1101',3833736.3964')
10	Line	2.00'		N88° 46' 48"W	1+35.60'	1+37.60'				(5545764.1581',3833740.8887',1112.46')	(5545762.1585',3833740.9313',1112.50')	
11	Curve	29.57'	25.00'		1+37.60'	1+67.17'	67.7721 (d)	27.88'	N32° 39' 58"W	(5545762.1585',3833740.9313',1112.50')	(5545747.1120',3833764.3992',1113.00')	(5545737.1642',3833741.4636')
12	Line	22.47'		N66° 33' 08"W	1+67.17'	1+89.64'				(5545747.1120',3833764.3992',1113.00')	(5545726.5009',3833773.3388',1113.25')	
13	Line	26.00'		N66° 33' 08"W	1+89.64'	2+15.64'				(5545726.5009',3833773.3388',1113.25')	(5545702.6479',3833783.6846',1113.25')	
14	Line	5.00'		S23° 26' 52"W	2+15.64'	2+20.64'				(5545702.6479',3833783.6846',1113.25')	(5545700.6584',3833779.0975',1113.20')	
15	Line	5.00'		N66° 33' 08"W	2+20.64'	2+25.64'				(5545700.6584',3833779.0975',1113.20')	(5545696.0712',3833781.0870',1113.20')	
16	Line	5.00'		N23° 26' 52"E	2+25.64'	2+30.64'				(5545696.0712',3833781.0870',1113.20')	(5545698.0608',3833785.6741',1113.25')	
17	Line	10.00'		N66° 33' 08"W	2+30.64'	2+40.64'				(5545698.0608',3833785.6741',1113.25')	(5545688.8866',3833789.6533',1113.10')	
18	Line	14.48'		N66° 33' 08"W	2+40.64'	2+55.12'				(5545688.8866',3833789.6533',1113.10')	(5545675.6020',3833795.4152',1112.16')	
19	Curve	20.40'	30.00'		2+55.12'	2+75.52'	38.9704 (d)	20.01'	N25° 34' 34"E	(5545675.6020',3833795.4152',1112.16')	(5545684.2421',3833813.4679',1113.62')	(5545705.4326',3833792.2321')

CAMPPAD #56

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	24.92'		N64° 49' 52"E	0+00.00'	0+24.92'				(5545669.4323',3833975.3629',1120.50')	(5545691.9822',3833985.9591',1120.50')	
2	Line	13.89'		N5° 05' 15"E	0+24.92'	0+38.81'				(5545691.9822',3833985.9591',1120.50')	(5545693.2141',3833999.7968',1120.75')	
3	Line	24.00'		N64° 49' 52"E	0+38.81'	0+62.81'				(5545693.2141',3833999.7968',1120.75')	(5545714.9355',3834010.0037',1120.25')	
4	Line	12.00'		S25° 10' 08"E	0+62.81'	0+74.81'				(5545714.9355',3834010.0037',1120.25')	(5545720.0390',3833999.1430',1119.88')	
5	Line	16.10'		N64° 49' 52"E	0+74.81'	0+90.91'				(5545720.0390',3833999.1430',1119.88')	(5545734.6119',3834005.9908',1118.55')	
6	Curve	38.05'	28.00'		0+90.91'	1+28.96'	77.8636 (d)	35.19'	N25° 53' 58"E	(5545734.6119',3834005.9908',1118.55')	(5545749.9826',3834037.6465',1118.77')	(5545722.7038',3834031.3324')
7	Line	28.57'		S13° 01' 57"E	1+28.96'	1+57.53'				(5545749.9826',3834037.6465',1118.77')	(5545756.4243',3834009.8165',1117.18')	
8	Curve	22.54'	40.00'		1+57.53'	1+80.07'	32.2906 (d)	22.25'	S48° 41' 09"W	(5545756.4243',3834009.8165',1117.18')	(5545739.7153',3833995.1301',1118.55')	(5545722.7038',3834031.3324')
9	Line	16.10'		S64° 49' 52"W	1+80.07'	1+96.17'				(5545739.7153',3833995.1301',1118.55')	(5545725.1424',3833988.2823',1119.50')	
10	Line	31.00'		S64° 49' 52"W	1+96.17'	2+27.17'				(5545725.1424',3833988.2823',1119.50')	(5545697.0856',3833975.0984',1120.25')	
11	Line	13.78'		S64° 49' 52"W	2+27.17'	2+40.95'				(5545697.0856',3833975.0984',1120.25')	(5545684.6184',3833969.2400',1120.00')	
12	Curve	25.84'	28.00'		2+40.95'	2+66.79'	52.8739 (d)	24.93'	S38° 23' 39"W	(5545684.6184',3833969.2400',1120.00')	(5545669.1340',3833949.6995',1118.66')	(5545696.5264',3833943.8984')
13	Line	0.45'		N88° 19' 45"W	2+66.79'	2+67.24'				(5545669.1340',3833949.6995',1118.66')	(5545668.6841',3833949.7126',1118.66')	
14	Line	25.66'		N1° 40' 15"E	2+67.24'	2+92.90'				(5545668.6841',3833949.7126',1118.66')	(5545669.4323',3833975.3629',1120.50')	

CAMPPAD #57

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	30.93'	25.00'		0+00.00'	0+30.93'	70.8971 (d)	29.00'	N4° 33' 05"W	(5545641.0267',3833949.3430',1118.58')	(5545638.7255',3833978.2501',1120.25')	(5545619.5744',3833962.1804')
2	Line	8.75'		N40° 00' 00"W	0+30.93'	0+39.69'				(5545638.7255',3833978.2501',1120.25')	(5545633.1006',3833984.9536',1120.50')	
3	Line	13.89'		S80° 15' 23"W	0+39.69'	0+53.58'				(5545633.1006',3833984.9536',1120.50')	(5545619.4085',3833982.6025',1120.50')	
4	Line	24.00'		N40° 00' 00"W	0+53.58'	0+77.58'				(5545619.4085',3833982.6025',1120.50')	(5545603.9816',3834000.9875',1121.00')	
5	Line	24.00'		N50° 00' 00"E	0+77.58'	1+01.58'				(5545603.9816',3834000.9875',1121.00')	(5545622.3667',3834016.4144',1121.75')	
6	Line	31.00'		S40° 00' 00"E	1+01.58'	1+32.58'				(5545622.3667',3834016.4144',1121.75')	(5545642.2931',3833992.6671',1120.75')	
7	Line	19.00'		S40° 00' 00"E	1+32.58'	1+51.58'				(5545642.2931',3833992.6671',1120.75')	(5545654.5061',3833978.1122',1120.76')	
8	Curve	23.86'	35.00'		1+51.58'	1+75.44'	39.0614 (d)	23.40'	S21° 12' 05"W	(5545654.5061',3833978.1122',1120.76')	(5545646.0428',3833956.2943',1119.08')	(5545619.5210',3833979.1327')
9	Curve	8.58'	50.00'		1+75.44'	1+84.02'	9.8351 (d)	8.57'	S35° 48' 53"W	(5545646.0428',3833956.2943',1119.08')	(5545641.0267',3833949.3430',1118.58')	(5545683.9312',3833923.6681')

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:
PIKES PEAK CAMPGROUND UPGRADE PROJECT
CLAYTON COUNTY, IOWA

NO.	BY DATE	REVISION

DRAWN BY:
PROJECT NUMBER: 21-03-22-01
CHK'D BY:
DATE: 5/01/2021
SHEET No: 99

CAMPPAD TRAVERSE ALIGNMENT CONTROL (CONT.)

CAMPPAD #58

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Curve	15.18'	30.00'		0+00.00'	0+15.18'	29.0010 (d)	15.02'	N12° 49' 47"W	(5545654.8860',3833991.1360',1121.32')	(5545651.5500',3834005.7842',1121.75')	(5545624.8987',3833992.0106')
2	Line	25.09'		N27° 19' 49"W	0+15.18'	0+40.28'				(5545651.5500',3834005.7842',1121.75')	(5545640.0298',3834028.0752',1122.40')	
3	Line	20.00'		N27° 19' 49"W	0+40.28'	0+60.28'				(5545640.0298',3834028.0752',1122.40')	(5545630.8475',3834045.8427',1123.00')	
4	Line	13.89'		N87° 04' 26"W	0+60.28'	0+74.17'				(5545630.8475',3834045.8427',1123.00')	(5545616.9731',3834046.5519',1123.25')	
5	Line	24.00'		N27° 19' 49"W	0+74.17'	0+98.17'				(5545616.9731',3834046.5519',1123.25')	(5545605.9543',3834067.8729',1123.90')	
6	Line	24.00'		N62° 40' 11"E	0+98.17'	1+22.17'				(5545605.9543',3834067.8729',1123.90')	(5545627.2753',3834078.8917',1123.75')	
7	Line	31.00'		S27° 19' 49"E	1+22.17'	1+53.17'				(5545627.2753',3834078.8917',1123.75')	(5545641.5080',3834051.3521',1123.00')	
8	Line	20.00'		S27° 19' 49"E	1+53.17'	1+73.17'				(5545641.5080',3834051.3521',1123.00')	(5545650.6903',3834033.5846',1122.55')	
9	Line	11.57'		S27° 19' 49"E	1+73.17'	1+84.74'				(5545650.6903',3834033.5846',1122.55')	(5545656.0041',3834023.3026',1122.42')	
10	Curve	6.22'	107.50'		1+84.74'	1+90.96'	3.3146 (d)	6.22'	S3° 19' 41"W	(5545656.0041',3834023.3026',1122.42')	(5545655.6432',3834017.0951',1122.18')	(5545763.0975',3834013.9609')
11	Line	25.97'		S1° 40' 15"W	1+90.96'	2+16.93'				(5545655.6432',3834017.0951',1122.18')	(5545654.8860',3833991.1360',1121.32')	

CAMPPAD #59

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	6.44'		N58° 05' 46"E	0+00.00'	0+06.44'				(5545671.4291',3834026.3370',1122.42')	(5545676.9001',3834029.7429',1122.25')	
2	Line	26.11'		N58° 05' 46"E	0+06.44'	0+32.55'				(5545676.9001',3834029.7429',1122.25')	(5545699.0647',3834043.5412',1121.50')	
3	Line	13.89'		N1° 38' 51"W	0+32.55'	0+46.45'				(5545699.0647',3834043.5412',1121.50')	(5545698.6653',3834057.4279',1121.75')	
4	Line	24.00'		N58° 05' 46"E	0+46.45'	0+70.45'				(5545698.6653',3834057.4279',1121.75')	(5545719.0398',3834070.1118',1121.00')	
5	Line	12.00'		S31° 54' 14"E	0+70.45'	0+82.45'				(5545719.0398',3834070.1118',1121.00')	(5545725.3817',3834059.9246',1120.75')	
6	Curve	34.76'	28.00'		0+82.45'	1+17.21'	71.1286 (d)	32.57'	N22° 31' 55"E	(5545725.3817',3834059.9246',1120.75')	(5545737.8626',3834090.0089',1120.28')	(5545710.5838',3834083.6948')
7	Line	32.70'		S13° 01' 57"E	1+17.21'	1+49.91'				(5545737.8626',3834090.0089',1120.28')	(5545745.2368',3834058.1499',1119.86')	
8	Line	15.92'		S58° 05' 46"W	1+49.91'	1+65.82'				(5545745.2368',3834058.1499',1119.86')	(5545731.7236',3834049.7374',1120.50')	
9	Line	31.00'		S58° 05' 46"W	1+65.82'	1+96.82'				(5545731.7236',3834049.7374',1120.50')	(5545705.4066',3834033.3540',1121.25')	
10	Line	26.11'		S58° 05' 46"W	1+96.82'	2+22.93'				(5545705.4066',3834033.3540',1121.25')	(5545683.2420',3834019.5557',1122.00')	
11	Curve	27.57'	28.00'		2+22.93'	2+50.51'	56.4254 (d)	26.47'	S29° 53' 00"W	(5545683.2420',3834019.5557',1122.00')	(5545670.0518',3833996.6018',1121.56')	(5545698.0399',3833995.7855')
12	Line	20.06'		N1° 40' 15"E	2+50.51'	2+70.57'				(5545670.0518',3833996.6018',1121.56')	(5545670.6368',3834016.6578',1122.18')	
13	Curve	9.72'	92.50'		2+70.57'	2+80.29'	6.0183 (d)	9.71'	N4° 40' 48"E	(5545670.6368',3834016.6578',1122.18')	(5545671.4291',3834026.3370',1122.42')	(5545763.0975',3834013.9609')

HOST CAMPPAD #60

No.	Type	Length	Radius	Direction	Start Station	End Station	Delta angle	Chord length	Chord Direction	Start Point	End Point	Center Point
1	Line	25.69'		N63° 33' 24"W	0+00.00'	0+25.69'				(5545690.3143',3834100.1867',1121.30')	(5545667.3117',3834111.6270',1122.25')	
2	Line	13.89'		S56° 41' 59"W	0+25.69'	0+39.58'				(5545667.3117',3834111.6270',1122.25')	(5545655.7003',3834103.9996',1122.80')	
3	Line	24.00'		N63° 33' 24"W	0+39.58'	0+63.58'				(5545655.7003',3834103.9996',1122.80')	(5545634.2113',3834114.6871',1122.80')	
4	Line	24.00'		N26° 26' 36"E	0+63.58'	0+87.58'				(5545634.2113',3834114.6871',1122.80')	(5545644.8988',3834136.1761',1121.75')	
5	Line	31.00'		S63° 33' 24"E	0+87.58'	1+18.58'				(5545644.8988',3834136.1761',1121.75')	(5545672.6554',3834122.3715',1121.75')	
6	Line	4.06'		S63° 33' 24"E	1+18.58'	1+22.64'				(5545672.6554',3834122.3715',1121.75')	(5545676.2884',3834120.5646',1121.60')	
7	Curve	33.84'	23.00'		1+22.64'	1+56.48'	84.3040 (d)	30.87'	N74° 17' 29"E	(5545676.2884',3834120.5646',1121.60')	(5545706.0059',3834128.9228',1120.03')	(5545686.5305',3834141.1583')
8	Line	2.00'		S57° 51' 39"E	1+56.48'	1+58.48'				(5545706.0059',3834128.9228',1120.03')	(5545707.6995',3834127.8588',1120.07')	
9	Line	32.68'		S32° 08' 21"W	1+58.48'	1+91.16'				(5545707.6995',3834127.8588',1120.07')	(5545690.3143',3834100.1867',1121.30')	

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

CAMPPAD TRAVERSE CONTROL

CONSTRUCTION PROJECT FOR:

PIKES PEAK CAMPGROUND UPGRADE PROJECT

CLAYTON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY:

PROJECT NUMBER: 21-03-22-01

CHK'D BY:

DATE: 5/01/2021

SHEET No: 100