Purchasing Division
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Addendum 1
Solicitation 24-99428
Brighton Beach Road Reconstruction

This addendum serves to notify all bidders of the following changes to the solicitation documents:

- Please see the attached documents

Please acknowledge receipt of this Addendum by checking the acknowledgement box within the www.bidexpress.com solicitation.

Posted: **April 25, 2024**

ADDENDUM #1, Thursday, April, 2024

Brighton Beach Road Reconstruction
City Project # 1940
BID No. 24-99428

NOTICE

This Addendum is issued to modify, explain or correct the original drawings, specifications and/or previous addenda and is hereby made a part of the Contract Documents. Please attach this Addendum to the specification and note receipt of this Addendum on the Request for Bid.

GENERAL

1. The Project Bid Form is revised.

2. Descriptions of changes to drawings are for reference only and provide only a general overview of changes made. It is the Contractor's responsibility to fully assess and provide the specific requirements of the Work on all Plan sheets regardless of the description of sheet change(s) provided herein.

DRAWINGS

1. Drawing changes to the STATEMENT OF ESTIMATED QUANTITIES are as follows:
    a. Sheet 4; Modify Sheet 4 to add 2106.507 GRANULAR EMBANKMENT (CV) and SEQ Note #18. Changed 2108.504 GEOTEXTILE FABRIC TYPE 6 to TYPE 10. Revised quantities for 2104.502 REMOVE SIGN and 2211.507 AGGREGATE BASE (CV) CLASS 6.
    b. Sheet 5; Modify Sheet 5 to add SEQ Note #18 and revise quantities for 2521.518 4" CONCRETE WALK, 2564.502 INSTALL SIGN PANEL TYPE C and 2564.618 SIGN TYPE C.

2. Drawing changes to the CONSTRUCTION CHARTS are as follows:
    a. Sheet 6; Modify Sheet 6 to add GRANULAR EMBANKMENT (CV) to Chart B.
    b. Sheet 7; Modify Sheet 7 to change GEOTEXTILE FABRIC TYPE 6 to TYPE 10 in Chart C.
    c. Sheet 8; Modify Sheet 8 to revise quantities in Chart F.
    d. Sheet 10; Modify Sheet 10 to revise sign quantities in Chart G.
    e. Sheet 12; Modify Sheet 12 to change GEOTEXTILE FABRIC TYPE 6 to TYPE 10 in Charts K & L.

3. Drawing changes to the TYPICAL SECTIONS are as follows:
    a. Sheet 14; Modify Sheet 14 to change GEOTEXTILE FABRIC TYPE 6 to TYPE 10.

4. Drawing changes to the CONSTRUCTION DETAILS are as follows:
    a. Sheet 32; Modify Sheet 32 to change GEOTEXTILE FABRIC TYPE 6 to TYPE 10.

5. Drawing changes to the EROSION CONTROL PLANS are as follows:
    a. Sheet 57; Modify Sheet 57 to show removal of walk between Sta 44+70 and 46+00.

6. Drawing changes to the CONSTRUCTION PLAN & PROFILE are as follows:
    a. Sheet 68; Modify Sheet 68 to show removal of walk between Sta 44+70 and 46+00 and shifting boulders between trail and curb.

7. Drawing changes to the SIGNING & PAVEMENT MARKING PLAN are as follows:
    a. Sheet 76; Modify Sheet 76 to show removal of existing 'Brighton Beach Park' signs and addition of no turn signs on Congdon Boulevard.

SPECIFICATIONS

1. SP-54, (2563) TRAFFIC CONTROL is hereby amended as follows:
    a. No work, lane restrictions or lane shifts are allowed on TH 61 or Congdon Boulevard during Grandma's Marathon weekend (June 22-23, 2024) or the weekend of the North Shore Inline Marathon (September 14-15, 2024). All traffic control devices related to the Work in this contract shall be removed from the roadway and roadway must have continuous bituminous pavement during the above event dates (no gravel surfacing allowed except on shoulders).

END OF ADDENDUM

BID FORM

LINE NO.	ITEM NO.	ITEM DESCRIPTION	UNITS	QUANTITY
1	2021.501	MOBILIZATION	LUMP SUM	1
2	2101.501	CLEARING AND GRUBBING	LUMP SUM	1
3	2102.503	PAVEMENT MARKING REMOVAL	LIN FT	429
4	2104.502	REMOVE PIPE APRON	EACH	5
5	2104.502	REMOVE SIGN	EACH	3
6	2104.502	SALVAGE BOULDER	EACH	109
7	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	837
8	2104.504	REMOVE BITUMINOUS PAVEMENT	SQ YD	918
9	2104.602	SALVAGE SIGN SPECIAL	EACH	1
10	2104.602	SALVAGE SIGN	EACH	5
11	2106.507	EXCAVATION - COMMON (P)	CU YD	6 948
12	2106.507	EXCAVATION - ROCK	CU YD	1 390
13	2106.507	EXCAVATION - MUCK	CU YD	5 760
14	2106.507	GRANULAR EMBANKMENT (CV)	CU YD	5 760
15	2106.507	SELECT GRANULAR EMBANKMENT MOD 7% (CV) (P)	CU YD	3 731
16	2106.507	COMMON EMBANKMENT (CV) (P)	CU YD	4 785
17	2108.504	GEOTEXTILE FABRIC TYPE 10	SQ YD	11 755
18	2112.519	SUBGRADE PREPARATION	ROAD STA	3 148
19	2118.507	AGGREGATE SURFACING (CV) CLASS SPECIAL	CU YD	65
20	2211.507	AGGREGATE BASE (CV) CLASS 6 (P)	CU YD	2 883
21	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	675
22	2357.606	BITUMINOUS MATERIAL FOR SHOULDER TACK	GALLON	54
23	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (4,C)	TON	1 828
24	2411.502	CONCRETE STAIRWAY	EACH	1
25	2411.507	STRUCTURE EXCAVATION CLASS E (P)	CU YD	1 410
26	2411.507	GRANULAR BACKFILL (CV) (P)	CU YD	1 301
27	2451.507	GRANULAR BEDDING (CV) (P)	CU YD	129
28	2475.503	PIPE RAILING	LIN FT	42
29	2501.502	18" RC PIPE APRON	EACH	2
30	2501.502	36" RC PIPE APRON	EACH	2
31	2501.502	42" SPAN CAS PIPE-ARCH APRON	EACH	1
32	2501.502	22" SPAN RC PIPE-ARCH APRON	EACH	8
33	2501.502	28" SPAN RC PIPE-ARCH APRON	EACH	1
34	2501.503	22" SPAN RC PIPE-ARCH CULVERT CLASS IIIA	LIN FT	310
35	2501.503	18" RC PIPE CULVERT DESIGN 3006 CLASS III	LIN FT	60
36	2501.503	36" RC PIPE CULVERT DESIGN 3006 CLASS IV	LIN FT	50
37	2501.603	42" SPAN CAS PIPE-ARCH CULVERT	LIN FT	20
38	2502.502	6" PRECAST CONCRETE HEADWALL	EACH	8
39	2502.503	6" PERF TP PIPE DRAIN	LIN FT	3 251
40	2503.503	22" SPAN RC PIPE-ARCH SEWER CLASS IIA	LIN FT	34
41	2503.503	28" SPAN RC PIPE-ARCH SEWER CLASS IIIA	LIN FT	50
42	2503.503	18" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	90
43	2503.602	CONNECT TO INPLACE CULVERT	EACH	5
44	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 1	EACH	9
45	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 2	EACH	3
46	2506.502	CASTING ASSEMBLY	EACH	3
47	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN G	LIN FT	3.7
48	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 48-4020	LIN FT	9.7
49	2506.602	CONCRETE ENCASED CASTING COLLAR	EACH	1
50	2511.504	GEOTEXTILE FILTER TYPE 4	SQ YD	171
51	2511.507	RANDOM RIPRAP CLASS IV	CU YD	54
52	2511.602	LANDSCAPE BOULDER	EACH	109
53	2511.602	PLACE BOULDER	EACH	109
54	2521.518	4" CONCRETE WALK	SQ FT	7 592
55	2521.518	6" CONCRETE WALK	SQ FT	343

56	2521.602	DRILL & GROUT REINF BAR (EPOXY COATED)	EACH	36
57	2521.618	SPECIAL WALK	SQ FT	1 372
58	2531.503	CONCRETE CURB & GUTTER DESIGN B424	LIN FT	43
59	2531.503	CONCRETE CURB & GUTTER DESIGN B624	LIN FT	5 426
60	2531.504	7" CONCRETE DRIVEWAY PAVEMENT	SQ YD	11
61	2531.618	TRUNCATED DOMES	SQ FT	40
62	2554.502	ANCHORAGE ASSEMBLY - TYPE 31	EACH	3
63	2554.502	END TREATMENT-TANGENT TERMINAL	EACH	1
64	2554.503	TRAFFIC BARRIER DESIGN TYPE 31	LIN FT	550.0
65	2554.503	TRAFFIC BARRIER DESIGN B8307	LIN FT	50.0
66	2557.503	WIRE FENCE DESIGN 48V-9322	LIN FT	739
67	2557.602	VEHICULAR GATE SPECIAL	EACH	2
68	2557.603	TEMPORARY FENCE DESIGN SPECIAL	LIN FT	3 008
69	2563.601	TRAFFIC CONTROL	LUMP SUM	1
70	2564.502	INSTALL SIGN PANEL TYPE C	EACH	119
71	2564.602	INSTALL SIGN	EACH	5
72	2564.602	INSTALL SIGN SPECIAL	EACH	1
73	2564.618	SIGN TYPE C	SQ FT	234.75
74	2571.602	TREE PROTECTION	EACH	14
75	2573.501	STABILIZED CONSTRUCTION EXIT	LUMP SUM	1
76	2573.501	EROSION CONTROL SUPERVISOR	LUMP SUM	1
77	2573.502	STORM DRAIN INLET PROTECTION	EACH	2
78	2573.502	CULVERT END CONTROLS	EACH	19
79	2573.503	SILT FENCE, TYPE HI	LIN FT	4 039
80	2573.503	SEDIMENT CONTROL LOG TYPE WOOD FIBER	LIN FT	160
81	2573.602	ROCK DITCH CHECK	EACH	7
82	2575.523	RAPID STABILIZATION METHOD 3	M GAL	13.86
83	2575.605	TURF ESTABLISHMENT	ACRE	2.31
84	2581.503	6" REMOVABLE PREFORM PAVEMENT MARKING	LIN FT	10 357
85	2581.603	REMOVABLE PREFORMED PLASTIC MASK (BLACK)	LIN FT	8 075
86	2582.503	4" SOLID LINE MULTI-COMPONENT GROUND IN	LIN FT	974
87	2582.503	10" DOTTED LINE MULTI COMP GR IN (WR)	LIN FT	120
88	2582.503	6" SOLID LINE MULTI-COMPONENT GROUND IN (WR)	LIN FT	1 238
89	2582.503	6" DOTTED LINE MULTI-COMPONENT GROUND IN (WR)	LIN FT	25
90	2582.518	PAVEMENT MESSAGE MULTI-COMPONENT GROUND IN	SQ FT	17
91	2582.518	PAVEMENT MESSAGE PREFORM THERMOPLASTIC GROUND IN	SQ FT	93

SEQ NOTES

1. APPROXIMATELY 1.84 ACRES. TREES WILL BE FELLED BY OTHERS PRIOR TO PROJECT. CONTRACTOR SHALL GRUB AND REMOVE WOOD DEBRIS AND FELLED TREES FROM SITE. CONTRACTOR SHALL PROTECT ALL TREES AND VEGETATION NOT DESIGNATED FOR REMOVAL.
2. BOULDER SALVAGED FOR REUSE ON SITE.
3. INCLUDES TOPSOIL EXCAVATION AND SALVAGE FOR REUSE ON SITE.
4. INCLUDES PLACEMENT OF 4" SALVAGED TOPSOIL.
5. CALCULATED AT A RATE OF 0.08 GAL/SQ YD.
6. CALCULATED AT A RATE OF 0.22 GAL/SQ YD AND AN AVERAGE WIDTH OF 3 FEET.
7. CALCULATED AT 115 LBS/SQ YD/INCH
8. INCLUDES DELIVERING TO SITE FROM CITY STOCKPILE AND PLACING PER PLAN.
9. UNDISTRIBUTED QUANTITY TO BE USED AT DISCRETION OF ENGINEER.
10. CALCULATE AT A RATE OF 6000 GAL/ACRE.
11. SEE TURF ESTABLISHMENT NOTES ON SHEET 3.
12. ALL TRAFFIC CONTROL SIGNING AND DEVICES SHALL CONFORM TO AND BE PLACE IN ACCORDANCE WITH THE LATEST EDITION OF THE MINNESOTA "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MMUTCD) INCLUDING PART VI, THE CURRENT FIELD MANUAL, THE MINNESOTA STANDARD SIGNS MANUAL PARTS I, II, III, AND APPROPRIATE MATERIAL SPECIFICATIONS, THE CONTRACTOR MUST PROVIDE TERMINI SIGNING AND ANY BARRICADES, BARRELS, OR DELINEATION DEVICES NECESSARY TO ENSURE PUBLIC SAFETY.
13. INSTALL AND MAINTAIN AT ALL STORM DRAINS AND CULVERT INLETS WITHIN AFFECTED AREA AND IMMEDIATELY DOWNSTREAM. TO BE PAID FOR ONCE AT EACH LOCATION.
14. SHALL BE INSTALLED PRIOR TO ANY GROUND DISTURBING OPERATIONS.
15. QUANTITIES FOR 2108.504 GEOTEXTILE FABRIC TYPE 10, 2411.507 STRUCTURE EXCAVATION CLASS E, 2451.507 GRANULAR BEDDING (CV), AND 2411.507 GRANULAR BACKFILL (CV) PROVIDED FOR PIPE TREATMENTS, ANY ADDITIONAL QUANTITIES REQUIRED DUE TO OSHA TRENCH REQUIREMENTS SHALL BE CONSIDERED INCIDENTAL.
16. END TREATMENT SHALL BE EITHER SOFTSTOP OR MSKT.
17. PROVIDE TWO STABILIZED CONSTRUCTION EXITS.
18. EXCAVATE TO REMOVE MUCK AND UNSUITABLE MATERIALS TO A FIRM BOTTOM AS DIRECTED BY THE ENGINEER. BACKFILL WITH GRANULAR EMBANKMENT. △1

STATEMENT OF ESTIMATED QUANTITIES

NOTES	CHART	SHEET NO.	ITEM NO.	ITEM DESCRIPTION	UNITS	SAP 069-600-050 PARTICIPATING ESTIMATED QUANTITY	CITY PROJECT NO. 1940 NON-PARTICIPATING ESTIMATED QUANTITY	TOTAL PROJECT ESTIMATED QUANTITY
			2021.501	MOBILIZATION	LUMP SUM	0.94	0.06	1
1		59-62	2101.501	CLEARING AND GRUBBING	LUMP SUM	1		1
	J	11	2102.503	PAVEMENT MARKING REMOVAL	LIN FT		429	429
	K,L	12	2104.502	REMOVE PIPE APRON	EACH	5		5
	G	9	2104.502	REMOVE SIGN	EACH	2	1	3 △1
2	A	6	2104.502	SALVAGE BOULDER	EACH	109		109
	A	6	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	91	746	837
	A	6	2104.504	REMOVE BITUMINOUS PAVEMENT	SQ YD	50	868	918
	G	9	2104.602	SALVAGE SIGN SPECIAL	EACH		1	1
	G	9	2104.602	SALVAGE SIGN	EACH		5	5
3	B	6	2106.507	EXCAVATION - COMMON (P)	CU YD	6 014	934	6 948
	B	6	2106.507	EXCAVATION - ROCK	CU YD	1 203	187	1 390
18 △1	B	6	2106.507	EXCAVATION - MUCK	CU YD	5 760		5 760
18	B	6	2106.507	GRANULAR EMBANKMENT (CV)	CU YD	5 760		5 760
	B	6	2106.507	SELECT GRANULAR EMBANKMENT MOD 7% (CV) (P)	CU YD	3 548	183	3 731
4	B	6	2106.507	COMMON EMBANKMENT (CV) (P)	CU YD	4 785		4 785
15	C, K, L	7	2108.504	GEOTEXTILE FABRIC TYPE 10 △1	SQ YD	11 755		11 755
	C	7	2112.519	SUBGRADE PREPARATION	ROAD STA	3 148		3 148
	C	7	2118.507	AGGREGATE SURFACING (CV) CLASS SPECIAL	CU YD	28	37	65
	B, F	8	2211.507	AGGREGATE BASE (CV) CLASS 6 (P)	CU YD	2 296	587	2 883 △1
5	C	7	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	598	77	675
6	C	7	2357.606	BITUMINOUS MATERIAL FOR SHOULDER TACK	GALLON		54	54
7	C	7	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (4,C)	TON	1 495	333	1 828
	F	8	2411.502	CONCRETE STAIRWAY	EACH	1		1
15	K, L	12	2411.507	STRUCTURE EXCAVATION CLASS E (P)	CU YD	1 410		1 410
15	K, L	12	2411.507	GRANULAR BACKFILL (CV) (P)	CU YD	1 301		1 301
15	K, L	12	2451.507	GRANULAR BEDDING (CV) (P)	CU YD	129		129
	F	8	2475.503	PIPE RAILING	LIN FT	42		42
	K	12	2501.502	18" RC PIPE APRON	EACH	2		2
	K	12	2501.502	36" RC PIPE APRON	EACH	2		2
	K	12	2501.502	42" SPAN CAS PIPE-ARCH APRON	EACH	1		1
	K	12	2501.502	22" SPAN RC PIPE-ARCH APRON	EACH	8		8
	L	12	2501.502	28" SPAN RC PIPE-ARCH APRON	EACH	1		1
	K	12	2501.503	22" SPAN RC PIPE-ARCH CULVERT CLASS IIIA	LIN FT	310		310
	K	12	2501.503	18" RC PIPE CULVERT DESIGN 3006 CLASS III	LIN FT	60		60
	K	12	2501.503	36" RC PIPE CULVERT DESIGN 3006 CLASS IV	LIN FT	50		50
	K	12	2501.603	42" SPAN CAS PIPE-ARCH CULVERT	LIN FT	20		20
	D	7	2502.502	6" PRECAST CONCRETE HEADWALL	EACH	8		8
	D	7	2502.503	6" PERF TP PIPE DRAIN	LIN FT	3 251		3 251
	L	12	2503.503	22" SPAN RC PIPE-ARCH SEWER CLASS IIA	LIN FT	34		34
	L	12	2503.503	28" SPAN RC PIPE-ARCH SEWER CLASS IIIA	LIN FT	50		50
	L	12	2503.503	18" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	90		90
	K, L	12	2503.602	CONNECT TO INPLACE CULVERT	EACH	5		5

(P) DENOTES PLAN QUANTITY

LHB PROJECT NO. 220990

I HEREBY CERTIFY that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

MEGAN GOPLIN
PRINTED NAME

Megan Goplin
SIGNATURE

2-9-2024
DATE

53018
LIC. NO.

S.A.P. 069-600-050

CITY PROJECT NO. 1940

BRIGHTON BEACH ROADWAY

REVISION
△1 4-22-2024

STATEMENT OF ESTIMATED QUANTITIES

SHEET NO. 4 OF 82 SHEETS

PLOT DATE: 4/24/2024 11:58:22 AM FILE: Q:\22Proj\220990\500 Drawings\Civil\220990_04.0 - SEQ.dwg

SEQ NOTES

1. APPROXIMATELY 1.84 ACRES. TREES WILL BE FELLED BY OTHERS PRIOR TO PROJECT. CONTRACTOR SHALL GRUB AND REMOVE WOOD DEBRIS AND FELLED TREES FROM SITE. CONTRACTOR SHALL PROTECT ALL TREES AND VEGETATION NOT DESIGNATED FOR REMOVAL.
2. BOULDER SALVAGED FOR REUSE ON SITE.
3. INCLUDES TOPSOIL EXCAVATION AND SALVAGE FOR REUSE ON SITE.
4. INCLUDES PLACEMENT OF 4" SALVAGED TOPSOIL.
5. CALCULATED AT A RATE OF 0.08 GAL/SQ YD.
6. CALCULATED AT A RATE OF 0.22 GAL/SQ YD AND AN AVERAGE WIDTH OF 3 FEET.
7. CALCULATED AT 115 LBS/SQ YD/INCH
8. INCLUDES DELIVERING TO SITE FROM CITY STOCKPILE AND PLACING PER PLAN.
9. UNDISTRIBUTED QUANTITY TO BE USED AT DISCRETION OF ENGINEER.
10. CALCULATE AT A RATE OF 6000 GAL/ACRE.
11. SEE TURF ESTABLISHMENT NOTES ON SHEET 3.
12. ALL TRAFFIC CONTROL SIGNING AND DEVICES SHALL CONFORM TO AND BE PLACE IN ACCORDANCE WITH THE LATEST EDITION OF THE MINNESOTA "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MMUTCD) INCLUDING PART VI, THE CURRENT FIELD MANUAL, THE MINNESOTA STANDARD SIGNS MANUAL PARTS I, II, III, AND APPROPRIATE MATERIAL SPECIFICATIONS, THE CONTRACTOR MUST PROVIDE TERMINI SIGNING AND ANY BARRICADES, BARRELS, OR DELINEATION DEVICES NECESSARY TO ENSURE PUBLIC SAFETY.
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15. QUANTITIES FOR 2108.504 GEOTEXTILE FABRIC TYPE 10, 2411.507 STRUCTURE EXCAVATION CLASS E, 2451.507 GRANULAR BEDDING (CV), AND 2411.507 GRANULAR BACKFILL (CV) PROVIDED FOR PIPE TREATMENTS, ANY ADDITIONAL QUANTITIES REQUIRED DUE TO OSHA TRENCH REQUIREMENTS SHALL BE CONSIDERED INCIDENTAL. (1)
16. END TREATMENT SHALL BE EITHER SOFTSTOP OR MSKT.
17. PROVIDE TWO STABILIZED CONSTRUCTION EXITS.
18. EXCAVATE TO REMOVE MUCK AND UNSUITABLE MATERIALS TO A FIRM BOTTOM AS DIRECTED BY THE ENGINEER. BACKFILL WITH GRANULAR EMBANKMENT. (1)

STATEMENT OF ESTIMATED QUANTITIES

NOTES	CHART	SHEET NO.	ITEM NO.	ITEM DESCRIPTION	UNITS	SAP 069-600-050 PARTICIPATING ESTIMATED QUANTITY	CITY PROJECT NO. 1940 NON-PARTICIPATING ESTIMATED QUANTITY	TOTAL PROJECT ESTIMATED QUANTITY
	H	11	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 1	EACH	9		9
	H	11	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 2	EACH	3		3
	L	12	2506.502	CASTING ASSEMBLY	EACH	3		3
	L	12	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN G	LIN FT	3.7		3.7
	L	12	2506.503	CONSTRUCT DRAINAGE STRUCTURE DESIGN 48-4020	LIN FT	9.7		9.7
	L	12	2506.602	CONCRETE ENCASED CASTING COLLAR	EACH	1		1
	K	12	2511.504	GEOTEXTILE FILTER TYPE 4	SQ YD	171		171
	K	12	2511.507	RANDOM RIPRAP CLASS IV	CU YD	54		54
8		63-69	2511.602	LANDSCAPE BOULDER	EACH	109		109
2		63-69	2511.602	PLACE BOULDER	EACH	109		109
	F	8	2521.518	4" CONCRETE WALK	SQ FT	7 592		7 592 (1)
	F	8	2521.518	6" CONCRETE WALK	SQ FT	343		343
	E	8	2521.602	DRILL & GROUT REINF BAR (EPOXY COATED)	EACH	36		36
	F	8	2521.618	SPECIAL WALK	SQ FT	1 372		1 372
	F	8	2531.503	CONCRETE CURB & GUTTER DESIGN B424	LIN FT	43		43
	F	8	2531.503	CONCRETE CURB & GUTTER DESIGN B624	LIN FT	5 426		5 426
	F	8	2531.504	7" CONCRETE DRIVEWAY PAVEMENT	SQ YD	11		11
	E	8	2531.618	TRUNCATED DOMES	SQ FT	40		40
	I	11	2554.502	ANCHORAGE ASSEMBLY - TYPE 31	EACH	3		3
16	I	11	2554.502	END TREATMENT-TANGENT TERMINAL	EACH	1		1
	I	11	2554.503	TRAFFIC BARRIER DESIGN TYPE 31	LIN FT	550.0		550.0
	I	11	2554.503	TRAFFIC BARRIER DESIGN B8307	LIN FT	50.0		50.0
9			2557.503	WIRE FENCE DESIGN 48V-9322	LIN FT	739		739
		34, 64, 67	2557.602	VEHICULAR GATE SPECIAL	EACH	2		2
		59-62	2557.603	TEMPORARY FENCE DESIGN SPECIAL	LIN FT	3 008		3 008
12			2563.601	TRAFFIC CONTROL	LUMP SUM	0.94	0.06	1
	G	9-10	2564.502	INSTALL SIGN PANEL TYPE C	EACH	117	2	119
	G	9	2564.602	INSTALL SIGN	EACH		5	5 (1)
	G	9	2564.602	INSTALL SIGN SPECIAL	EACH		1	1
	G	9-10	2564.618	SIGN TYPE C	SQ FT	221.75	13.00	234.75
		59-62	2571.602	TREE PROTECTION	EACH	14		14
17		53, 58	2573.501	STABILIZED CONSTRUCTION EXIT	LUMP SUM	1		1
			2573.501	EROSION CONTROL SUPERVISOR	LUMP SUM	1		1
13	H	11	2573.502	STORM DRAIN INLET PROTECTION	EACH	2		2
13	H	11	2573.502	CULVERT END CONTROLS	EACH	18	1	19
14	H	11	2573.503	SILT FENCE, TYPE HI	LIN FT	3 637	402	4 039
	H	11	2573.503	SEDIMENT CONTROL LOG TYPE WOOD FIBER	LIN FT	160		160
	H	11	2573.602	ROCK DITCH CHECK	EACH	7		7
10	H	11	2575.523	RAPID STABILIZATION METHOD 3	M GAL	13.02	0.84	13.86
11	H	11	2575.605	TURF ESTABLISHMENT	ACRE	2.17	0.14	2.31
		80-82	2581.503	6" REMOVABLE PREFORM PAVEMENT MARKING	LIN FT	10 357		10 357
		80-82	2581.603	REMOVABLE PREFORMED PLASTIC MASK (BLACK)	LIN FT	8 075		8 075
	J	11	2582.503	4" SOLID LINE MULTI-COMPONENT GROUND IN	LIN FT	974		974
	J	11	2582.503	10" DOTTED LINE MULTI COMP GR IN (WR)	LIN FT		120	120
	J	11	2582.503	6" SOLID LINE MULTI-COMPONENT GROUND IN (WR)	LIN FT	50	1 188	1 238
	J	11	2582.503	6" DOTTED LINE MULTI-COMPONENT GROUND IN (WR)	LIN FT	25		25
	J	11	2582.518	PAVEMENT MESSAGE MULTI-COMPONENT GROUND IN	SQ FT	17		17
	J	11	2582.518	PAVEMENT MESSAGE PREFORM THERMOPLASTIC GROUND IN	SQ FT	62	31	93

(P) DENOTES PLAN QUANTITY

LHB PROJECT NO. 220990

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MEGAN GOPLIN
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Megan Goplin
SIGNATURE

2-9-2024
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S.A.P. 069-600-050

CITY PROJECT NO. 1940

BRIGHTON BEACH ROADWAY

REVISION
(1) 4-22-2024

STATEMENT OF ESTIMATED QUANTITIES

SHEET NO. 5 OF 82 SHEETS

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REMOVALS

A

STATION	LT / RT	SPEC. 2104 SALVAGE BOULDER (EACH)	SPEC. 2104 SAWING BITUMINOUS PAVEMENT (FULL DEPTH) (LIN FT)	SPEC. 2104 REMOVE BITUMINOUS PAVEMENT (SQ YD)	REMARKS
ALIGNMENT: T.H. 61 (NON-PARTICIPATING)					
114+28.16 TO 117+20.17	RT		319	402	NB T.H. 61
114+48.15 TO 118+58.15	LT		427	465	SB T.H. 61
NON-PARTICIPATING TOTAL			**746**	**868**	
ALIGNMENT: BRIGHTON BEACH RD. (PARTICIPATING)					
20+23.78 TO 51+73.95	LT / RT	109			BRIGHTON BEACH RD.
44+00.69 TO 44+24.43	44.35' RT		22	35	LAKEWALK
51+70 TO 51+72	LT / RT		69	15	T.H. 61 TIE-IN
PARTICIPATING TOTAL		**109**	**91**	**50**	
CHART TOTAL		**109**	**837**	**918**	

EARTHWORK SUMMARY

B

STATION TO STATION	LT / RT	SPEC. 2106 EXCAVATION - COMMON (CU YD)	SPEC. 2106 EXCAVATION - ROCK (CU YD)	SPEC. 2106 EXCAVATION - MUCK (CU YD)	SPEC. 2106 GRANULAR EMBANKMENT (CV) (CU YD)	SPEC. 2106 SELECT GRANULAR EMBANKMENT MOD 7% (CV) (CU YD)	SPEC. 2106 COMMON EMBANKMENT (CV) (CU YD)	SPEC. 2211 AGGREGATE BASE (CV) CLASS 6 (CU YD)	REMARKS
ALIGNMENT: T.H. 61 (NON-PARTICIPATING)									
114+65.50 TO 118+50.00		934	187			183		587	
ALIGNMENT: BRIGHTON BEACH RD. (PARTICIPATING)									
20+00.00 to 51+77.73	LT / RT	6 014	1 203	5 760	5 760	3 548	4 785	2 149	
CHART TOTAL		**6 948**	**1 390**	**5 760**	**5 760**	**3 731**	**4 785**	**2 736**	

1

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BRIGHTON BEACH ROADWAY

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CONSTRUCTION CHARTS

SHEET NO. 6 OF 82 SHEETS

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BITUMINOUS PAVEMENT & SHOULDERING

C

STATION	LT/ RT	SPEC. 2108 GEOTEXTILE FABRIC TYPE 10	SPEC. 2112 SUBGRADE PREPARATION	SPEC. 2118 AGGREGATE SURFACING (CV) CLASS SPECIAL	SPEC. 2357 BITUMINOUS MATERIAL FOR TACK COAT	SPEC. 2357 BITUMINOUS MATERIAL FOR SHOULDER TACK	SPEC. 2360 TYPE SP 9.5 WEARING COURSE MIXTURE (4,C)	REMARKS
		SQ YD	ROAD STA	CU YD	GALLON	GALLON	TON	
ALIGNMENT: T.H. 61 (NON-PARTICIPATING)								
114+48.15 TO 118+58.15	LT			19	43	30	187	SB T.H. 61
114+28.16 TO 117+20.17	RT			18	34	24	146	NB T.H. 61
NON-PARTICIPATING TOTAL				37	77	54	333	
ALIGNMENT: BRIGHTON BEACH RD. (PARTICIPATING)								
20+23.78 TO 51+71.84	LT & RT	9 552	3 148	28	595		1 487	BRIGHTON BEACH RD
44+0069 TO 44+24.43	RT				3		8	LAKEWALK
PARTICIPATING TOTAL		**9 552**	**3 148**	**28**	**598**		**1 495**	
CHART TOTAL		**9 552**	**3 148**	**65**	**675**	**54**	**1 828**	

SUBDRAINS

D

LOCATION START STATION	LOCATION START LT / RT	LOCATION END STATION	LOCATION END LT / RT	SPEC. 2502 6" PRECAST CONCRETE HEADWALL	SPEC. 2502 6" PERF TP PIPE DRAIN	CONNECTS TO (INCIDENTAL)
				EACH	LIN FT	
ALIGNMENT: BRIGHTON BEACH RD. (PARTICIPATING)						
20+53.3	15.6 LT	23+24.1	16.9 LT		253	
23+24.1	16.9 LT			1		
23+36.4	16.3 RT			1		
23+36.4	16.3 RT	26+18.9	15.5 LT		283	
26+18.9	15.5 LT	28+53.5	35.9 RT		304	
28+53.5	35.9 RT			1		
28+61.5	38.5 RT			1		
28+61.5	38.5 RT	30+11.9	13.5 LT		190	
30+16.8	19.9 LT			1		
30+16.8	19.9 LT	31+91.2	15.5 LT		179	
31+94.4	18.4 LT	34+94.0	14.0 LT		303	PCB 602
34+94.0	14.0 LT	40+61.2	32.7 RT		621	PCB 801
40+75.0	15.5 LT	44+11.9	61.5 RT		398	
44+11.9	61.5 RT			1		
44+05.2	15.5 LT	46+91.6	22.6 LT		295	
46+91.6	22.6 LT			1		
47+02.0	22.9 LT			1		
47+02.0	22.9 LT	51+39.4	13.5 LT		425	
CHART TOTAL				**8**	**3 251**	

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BRIGHTON BEACH ROADWAY

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CONSTRUCTION CHARTS

SHEET NO. 7 OF 82 SHEETS

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ADA

STATION	LT / RT	RAMP DESIGN	SPEC. 2521 DRILL AND GROUT REINF. BARS (EPOXY COATED) EACH	SPEC. 2531 TRUNCATED DOMES SQUARE SQ FT	REMARKS
ALIGNMENT: BRIGHTON BEACH RD. (PARTICIPATING)					
24+06	RT	PERPINDICULAR	9	10	
33+02	RT	PERPINDICULAR	9	10	
41+49	RT	PERPINDICULAR	9	10	
44+62	RT	PERPINDICULAR	9	10	
CHART TOTAL			**36**	**40**	

E

CURB & GUTTER, SIDEWALK, AND DRIVEWAYS

STATION	LT / RT	CONCRETE STAIRWAY 2411 EACH	AGGREGATE BASE (CV) CLASS 6 2211 CU YD	PIPE RAILING 2475 LIN FT	4" CONCRETE WALK 2521 SQ FT	6" CONCRETE WALK 2521 SQ FT	SPECIAL WALK 2521 SQ FT	CONCRETE CURB & GUTTER DESIGN B424 2531 LIN FT	CONCRETE CURB & GUTTER DESIGN B624 2531 LIN FT	7" CONCRETE DRIVEWAY PAVEMENT 2531 SQ YD	REMARKS
ALIGNMENT: BRIGHTON BEACH RD. (PARTICIPATING)											
20+00.00 TO 25+00.0	LT/RT		14		700	71			595		
25+00.0 TO 30+00.0	LT/RT		46		2 469		1 372		1 000		
30+00.0 TO 35+00.0	LT/RT	1	41	42	2 128	84			1 000		
35+00.0 TO 39+72.2	LT/RT								944		
39+72.19 TO 45+00.0	LT/RT		46		2 295	188			1 056	11	
45+00.0 TO 51+94	LT/RT							43	831		
CHART TOTAL		**1**	**147**	**42**	**7 592**	**343**	**1 372**	**43**	**5 426**	**11**	

F

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CONSTRUCTION CHARTS

SHEET NO. 8 OF 82 SHEETS

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SIGNS

G

STATION	LT / RT	SIGN NUMBER	PANEL				SUPPORT			REMOVE SIGN 2104	SALVAGE SIGN 2104	SALVAGE SIGN SPECIAL 2104	INSTALL SIGN PANEL TYPE C 2564	INSTALL SIGN 2564	INSTALL SIGN SPECIAL 2564	SIGN TYPE C 2564	REMARKS
			PANEL CODE	LEGEND	SIZE (W x H)	MOUNTING HEIGHT	TYPE	RISER POST SIZE	NUMBER OF POSTS								
					INCH	FEET		INCHES		EACH	EACH	EACH	EACH	EACH	EACH	SQ FT	
ALIGNMENT: BRIGHTON BEACH RD. (PARTICIPATING) (CONTINUED)																	
32+87	RT	S-18	R7-8M	HANDICAP PARKING	12 x 18	7	SQ-SOIL	1-3/4	1				1			1.50	
			M4-6A	END	12 x 6											0.50	
33+50	RT	S-8	R8-3	NO PARKING	12 x 12	7	SQ-SOIL	1-3/4	1				1			1.00	
			R8-3PM	BEGIN	12 x 6											0.50	
33+50	LT	S-11	R7-2	NO PARKING THIS SIDE	12 x 18	7	SQ-SOIL	1-3/4	1				1			1.50	
34+00 TO 39+00	RT	S-10	R8-3	NO PARKING	12 x 12	7	SQ-SOIL	1-3/4	1				11			11.00	1 EA. AT 50 FT SPACING
34+00 TO 39+00	LT	S-11	R7-2	NO PARKING THIS SIDE	12 x 18	7	SQ-SOIL	1-3/4	1				11			16.50	1 EA. AT 50 FT SPACING
39+50	RT	S-12	R8-3	NO PARKING	12 x 12	7	SQ-SOIL	1-3/4	1				1			1.00	
			R8-3PM	END	12 x 6											0.50	
39+50	LT	S-11	R7-2	NO PARKING THIS SIDE	12 x 18	7	SQ-SOIL	1-3/4	1				1			1.50	
40+00 TO 45+50	LT	S-11	R7-2	NO PARKING THIS SIDE	12 x 18	7	SQ-SOIL	1-3/4	1				12			18.00	1 EA. AT 50 FT SPACING
41+25	RT	S-17	R7-8M	HANDICAP PARKING	12 x 18	7	SQ-SOIL	1-3/4	1				1			1.50	
			M4-14A	BEGIN	12 x 6											0.50	
41+47	RT	S-18	R7-8M	HANDICAP PARKING	12 x 18	7	SQ-SOIL	1-3/4	1				1			1.50	
			M4-6A	END	12 x 6											0.50	
44+37	RT	S-17	R7-8M	HANDICAP PARKING	12 x 18	7	SQ-SOIL	1-3/4	1				1			1.50	
			M4-14A	BEGIN	12 x 6											0.50	
44+59	RT	S-18	R7-8M	HANDICAP PARKING	12 x 18	7	SQ-SOIL	1-3/4	1				1			1.50	
			M4-6A	END	12 x 6											0.50	
46+00	RT	S-8	R8-3	NO PARKING	12 x 12	7	SQ-SOIL	1-3/4	1				1			1.00	
			R8-3PM	BEGIN	12 x 6											0.50	
46+00	LT	S-11	R7-2	NO PARKING THIS SIDE	12 x 18	7	SQ-SOIL	1-3/4	1				1			1.50	
46+50 TO 50+00	RT	S-10	R8-3	NO PARKING	12 x 12	7	SQ-SOIL	1-3/4	1				8			8.00	1 EA. AT 50 FT SPACING
46+50 TO 50+00	LT	S-11	R7-2	NO PARKING THIS SIDE	12 x 18	7	SQ-SOIL	1-3/4	1				8			12.00	1 EA. AT 50 FT SPACING
47+06	RT	S-22	X3-5U	SNOWPLOW MARKER UP	6 x 12	4	SQ-SOIL	1-3/4	1				1			0.50	
50+10	RT	S-23	X3-5D	SNOWPLOW MARKER DOWN	6 x 12	4	SQ-SOIL	1-3/4	1				1			0.50	
50+18	RT	S-13	W3-1	STOP AHEAD	30 x 30	7	SQ-SOIL	2	1				1			6.25	
51+06	LT	S-14	R5-1A	WRONG WAY	30 x 18	7	SQ-SOIL	2	1				1			3.75	
51+58	RT	S-15	R3-8AA	LANE-USE CONTROL	36 x 30	7	SQ-SOIL	2	1				1			7.50	
51+57	RT	S-16	R1-1	STOP	30 x 30	7	SQ-SOIL	2	1				1			6.25	MOUNT BACK TO BACK
			R5-1	DO NOT ENTER	30 x 30											6.25	
51+57	LT	S-16	R1-1	STOP	30 x 30	7	SQ-SOIL	2	1				1			6.25	MOUNT BACK TO BACK
			R5-1	DO NOT ENTER	30 x 30											6.25	
51+63	LT	S-7	R6-2R	ONE WAY	18 x 24	7	SQ-SOIL	2	1				1			3.00	MOUNT BACK TO BACK
			R6-2RL	ONE WAY	18 x 24											3.00	
51+63	LT	S-24	R3-1	NO RIGHT TURN	24 x 24	7	SQ-SOIL	2	1				1			4.00	
52+45	RT	S-25	R3-2	NO LEFT TURN	24 x 24	7	SQ-SOIL	2	1				1			4.00	
51+63	LT	S-26	EXIST	BRIGHTON BEACH PARK	–	–	–	–	–	1							
52+45	RT	S-27	EXIST	BRIGHTON BEACH PARK	–	–	–	–	–	1							
									PARTICIPATING SUBTOTAL	**2**	**0**	**0**	**71**			**142.00**	
									PARCIPITATING TOTAL	**2**	**0**	**0**	**117**			**221.75**	
									CHART TOTAL	**3**	**5**	**1**	**119**	**5**	**1**	**234.75**	

1

GENERAL NOTES:

1. MOUNTING HEIGHT IS MINIMUM (WITH A + 6 INCH TOLERANCE)
2. SEE CURRENT MNDOT STANDARD SIGNS AND MARKINGS MANUAL FOR STANDARD SIGN DESIGN, SPLICE PLATES, STRINGERS, AND PUNCHING CODES.
3. POST TYPE ABREVIATION SQ = SQUARE TUBE.
4. SEE PANEL LAYOUTS FOR SIGNS WITH PANEL CODES THAT BEGIN WITH THE LETTER "P" (P1, P2 ETC.)
5. SEE DETAILS FOR SIGN STRUCTURE INSTALLATION AND PLACEMENT.

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BRIGHTON BEACH ROADWAY

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CONSTRUCTION CHARTS

SHEET NO. 10 OF 82 SHEETS

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CULVERTS – REMOVALS, PIPES

K

CROSSING NUMBER	STRUCTURE NUMBER	UPSTREAM STATION	UPSTREAM LOCATION	UP-STREAM INVERT ELEV	TREATMENT TYPE	REMOVE PIPE APRON 2104 EACH	GEOTEXTILE FABRIC TYPE 10 (1) 2108 SQ YD	STRUCTURE EXCAVATION CLASS E 2411 CU YD	GRANULAR BACKFILL (CV) 2411 CU YD	GRANULAR BEDDING (CV) 2451 CU YD	GEOTEXTILE FILTER TYPE 4 2511 SQ YD	RANDOM RIPRAP CLASS IV 2511 CU YD	22" SPAN RC PIPE-ARCH CULV CLASS IIIA 2501 LIN FT	RC PIPE CULV DES 3006 2501		42" SPAN CAS PIPE-ARCH CULV 2501 LIN FT	RC PIPE APRON 2501		22" SPAN RC PIPE-ARCH APRON 2501 EACH	42" SPAN CAS PIPE-ARCH APRON 2501 EACH	CONNECT TO INPLACE CULVERT 2503 EACH	PIPE NUMBER	DRAINS TO	DOWN-STREAM INVERT ELEV	GRADE %	DOWNSTREAM STATION	DOWNSTREAM LOCATION	COMMENTS
														18" CL III LIN FT	36" CL IV LIN FT		18" LIN FT	36" EACH										
ALIGNMENT: BRIGHTON BEACH ROAD (PARTICIPATING)																												
3	PAPR-302	23+32.94	18.37 LT	613.02	A	1	101	31	24	7			38							1		1	P301	E300	612.13	2.00%	23+33.07	25.97 RT	(2)
4	PAPR-403	28+76.01	20.55 LT	617.11	A		174	70	60	10	29	8.1	48							2			P403	PAPR-402	613.96	5.20%	28+57.46	37.15 RT	
5	PAPR-502	30+11.55	19.73 LT	617.76	A	1	253	108	94	14			68							1		1	P501	E500	613.24	6.10%	30+39.07	49.07 RT	(2)
7	PAPR-702	35+01.05	23.56 LT	618.31	A		316	274	261	13	55	21.1			50			2				P702	PAPR-701	614.82	5.59%	34+66.90	28.68 RT	
10A	PAPR-1001	43+95.83	22.50 LT	614.17	A		117	59	49	19	29	8.1	78							2			P1001	PAPR-1000	611.64	2.79%	44+14.99	65.51 RT	(4)
10B	PAPR-1002	44+00.51	23.63 LT	614.17	A		117	59	49	19	29	8.1	78							2			P1002	PAPR-1003	611.64	2.80%	44+18.43	64.75 RT	(4)
11	PAPR-1101	46+96.76	24.10 LT	609.76	A	1	190	169	162	7						20					1	1	P1101	E1100	608.72	5.29%	46+99.39	4.55 LT	(2)
12	PAPR-1201	47+87.60	28.99 RT	612.93	A		282	181	169	12	29	8.5		60			2					P1201	PAPR-1200	612.36	0.79%	47+35.89	21.80 LT	
TOTAL						**3**	**1549**	**950**	**869**	**101**	**171**	**54**	**310**	**60**	**50**	**20**	**2**	**2**	**8**	**1**	**3**							

STORM SEWERS – REMOVALS, PIPES, MANHOLES, AND CATCH BASINS

L

CROSSING NUMBER	STRUCTURE NUMBER	UPSTREAM STATION	UPSTREAM LOCATION	RIM ELEV	UP-STREAM INVERT ELEV	TREATMENT TYPE	REMOVE PIPE APRON 2104 EACH	GEOTEXTILE FABRIC TYPE 10 (1) 2108 SQ YD	STRUCTURE EXCAVATION CLASS E 2411 CU YD	GRANULAR BACKFILL (CV) 2411 CU YD	GRANULAR BEDDING (CV) 2451 CU YD	18" RC PIPE SEWER DES 3006 CLASS III 2503 LIN FT	SPAN RC PIPE-ARCH SEWER 2503		CONST DRAINAGE STRUCTURE DES (1) 2506		STORM CASTING TYPE	CASTING ASSEMBLY 2506 EACH	28" SPAN RC PIPE-ARCH APRON 2501 EACH	CONCRETE ENCASED CASTING COLLAR 2506 EACH	CONNECT TO INPLACE CULVERT 2503 EACH	PIPE NUMBER	DRAINS TO	DOWN-STREAM INVERT ELEV	GRADE %	DOWNSTREAM STATION	DOWNSTREAM LOCATION	COMMENTS
													22" CL IIA LIN FT	28" CL IIIA LIN FT	G LIN FT	48-4020 LIN FT											
ALIGNMENT: BRIGHTON BEACH ROAD (PARTICIPATING)																												
6	PCB-602	31+94.37	18.35 LT	619.70	616.00	A		293	271	261	10	30			3.73		M-11	1				P602	PMH-601	615.41	1.97%	31+81.92	8.66 RT	
6	PMH-601	31+81.92	8.66 RT	621.03	614.17	(5)	1						34			6.89	STRM-1	1			1	P601	E600	613.24	3.06%	30+39.07	49.07 RT	(2)
8	PAPR-802	40+73.29	22.68 LT		616.07	A		361	189	171	18			50					1			P802	PCB-801	615.48	1.05%	40+61.19	32.71 RT	(3)
8	PCB-801	40+61.19	32.71 RT	618.12	615.38	(5)	1									2.77	M-11	1			1		E800					(2)
12	PAPR-1201	47+85.10	25.79 RT		612.93							60																
TOTAL							**2**	**654**	**460**	**432**	**28**	**90**	**34**	**50**	**3.7**	**9.7**		**3**	**1**	**1**	**2**							

CASTING ASSEMBLIES

M

CASTING	STRM-1		M-11	
TYPE OF ASSEMBLY	STORM MH		STORM CB	
CASTING DESCRIPTION	FRAME	LID	FRAME	GRATE
DULUTH PLATE NUMBER	STRM-1			
MNDOT PLATE NUMBER			4143	
HEIGHT IN FEET	0.67'	NA	0.67'	NA
PROJECT TOTALS	**1**		**2**	

KEY NOTES:

(1) PAY HEIGHT = (TOP OF CASTING – INVERT)–CASTING HEIGHT + 0.7 FOR BASE
BASE TO BE PAID AT 0.70' REGARDLESS OF ACTUAL THICKNESS

(2) FIELD VERIFY INVERT AND LOCATION OF EXISTING CULVERT

(3) TIE LAST 3 JOINTS

(4) USE ONE TREATMENT FOR CROSSING 10A & 10B

(5) DO NOT USE PIPE TREATMENT, USE TRENCHING DETAIL EX-4 ON SHEET 33. GRANULAR BEDDING (CV) IS INCIDENTAL.

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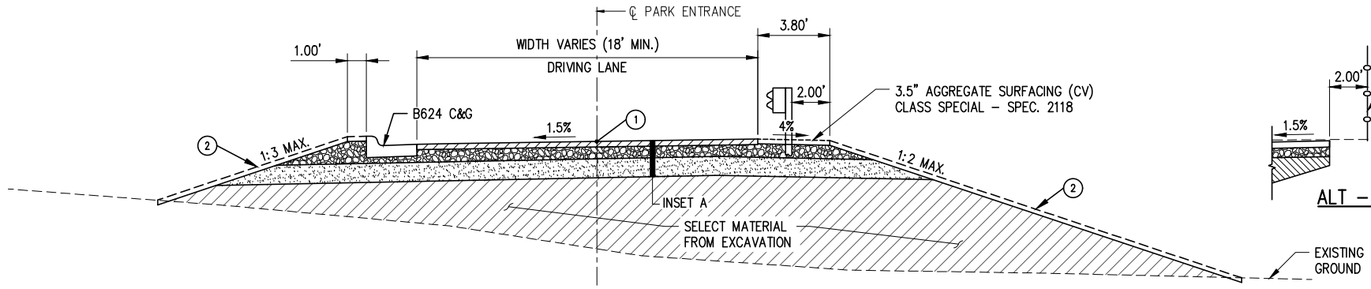
BRIGHTON BEACH ROADWAY

REVISION
⚠ 4-22-2024

CONSTRUCTION CHARTS

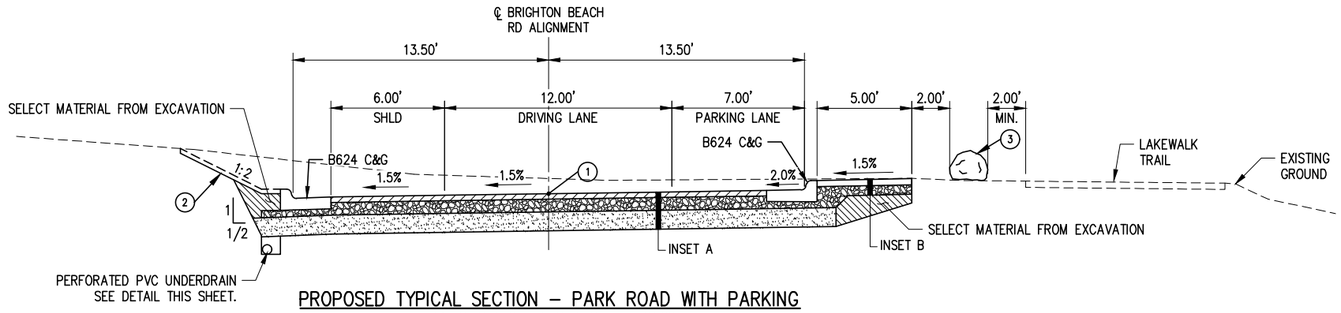
SHEET NO. 12 OF 82 SHEETS

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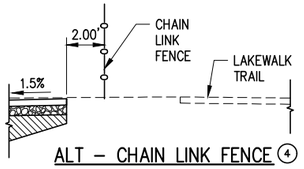
PROPOSED TYPICAL SECTION – PARK ENTRANCE

APPLIES: STA. 20+23.78 TO STA. 23+34.78

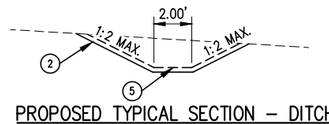


PROPOSED TYPICAL SECTION – PARK ROAD WITH PARKING

APPLIES: STA. 23+34.78 TO STA. 34+04.90
STA. 38+64.30 TO STA. 47+07.99

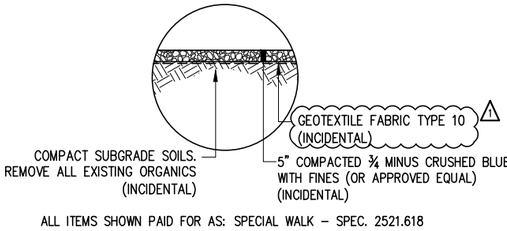


ALT – CHAIN LINK FENCE (4)



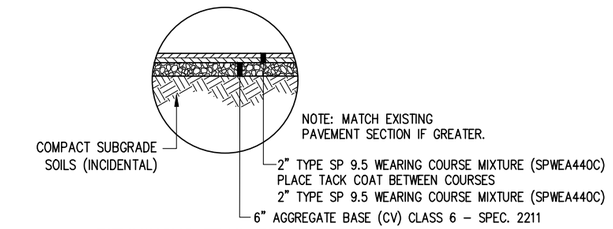
PROPOSED TYPICAL SECTION – DITCH

APPLIES: STA. 22+08 TO STA. 24+22 (LT)
STA. 27+83 TO STA. 30+85 (LT)
STA. 34+05 TO STA. 35+87 (LT)
STA. 40+06 TO STA. 41.83 (LT)
STA. 43+15 TO STA. 49+05 (LT)

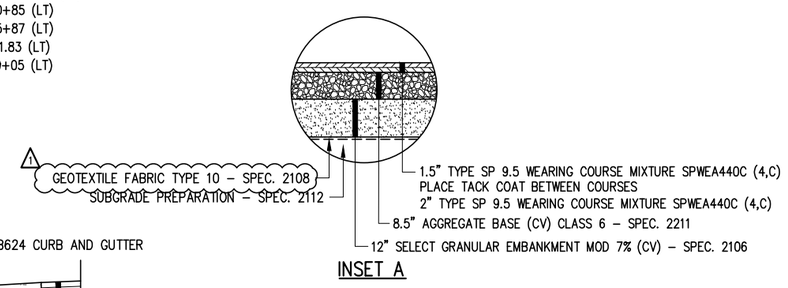


ALL ITEMS SHOWN PAID FOR AS: SPECIAL WALK – SPEC. 2521.618

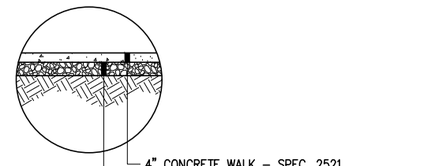
NATURAL SURFACE TRAIL



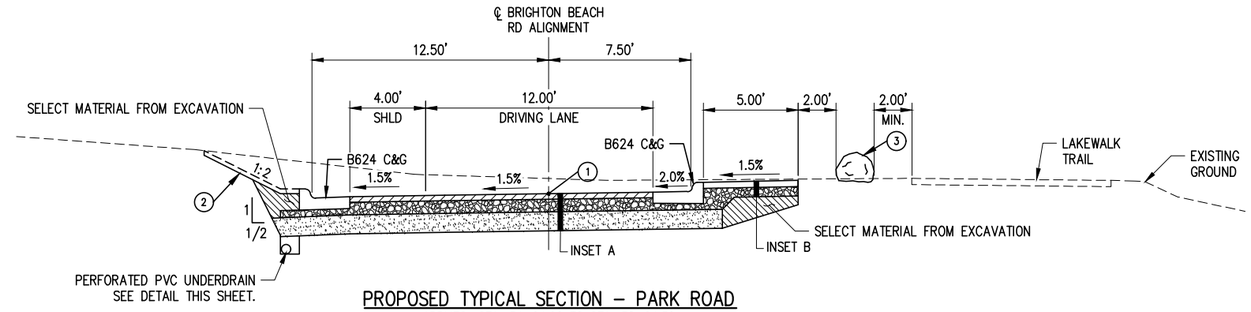
BITUMINOUS TRAIL RESTORATION



INSET A

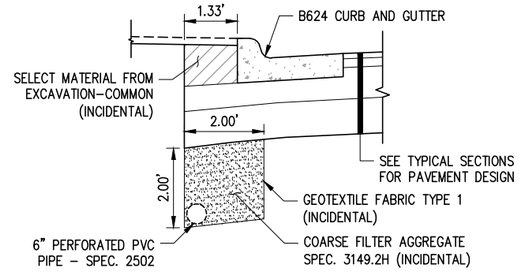


INSET B



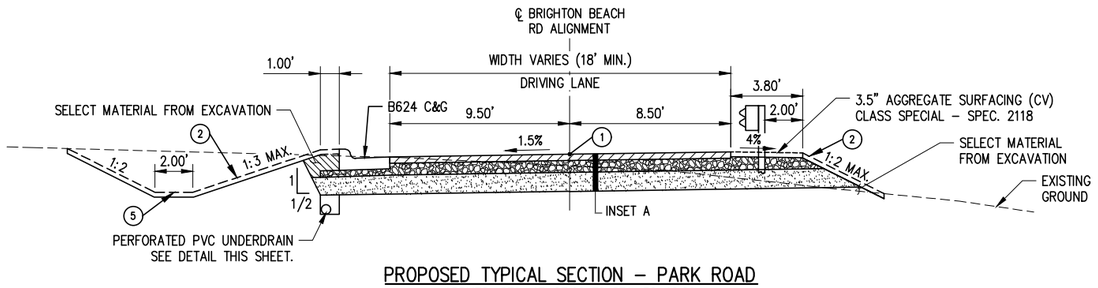
PROPOSED TYPICAL SECTION – PARK ROAD

APPLIES: STA. 34+04.90 TO STA. 38+64.30



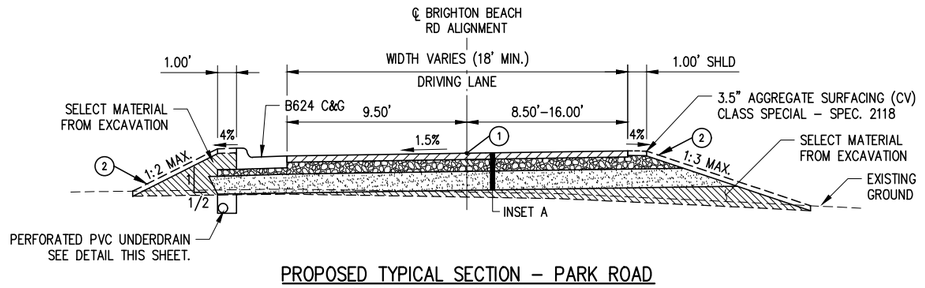
PERFORATED PVC UNDERDRAIN

NOT TO SCALE



PROPOSED TYPICAL SECTION – PARK ROAD

APPLIES: STA. 47+07.99 TO STA. 50+12.26



PROPOSED TYPICAL SECTION – PARK ROAD

APPLIES: STA. 50+12.26 TO STA. 51+73.95

KEY NOTES

1. PROFILE GRADE TOP OF FINISHED SURFACE.
2. PLACE 4" TOPSOIL, TURF ESTABLISHMENT PER NOTES ON SHEET 3.
3. PLACE 24" (MIN.) BOULDERS ALONG BACK OF WALK. 48" (MAX.) SPACING BETWEEN BOULDERS.
4. FENCE TO BE USED AT DISCRETION OF THE ENGINEER IF BOULDERS ARE NOT AVAILABLE FOR REUSE.
5. REFER TO DITCH PROFILES ON SHEETS 41–44.

LHB PROJECT NO. 220990

I HEREBY CERTIFY that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

MEGAN GOPLIN
PRINTED NAME

Megan Goplin
SIGNATURE

2-9-2024
DATE

53018
LIC. NO.

S.A.P. 069-600-050

CITY PROJECT NO. 1940

BRIGHTON BEACH ROADWAY

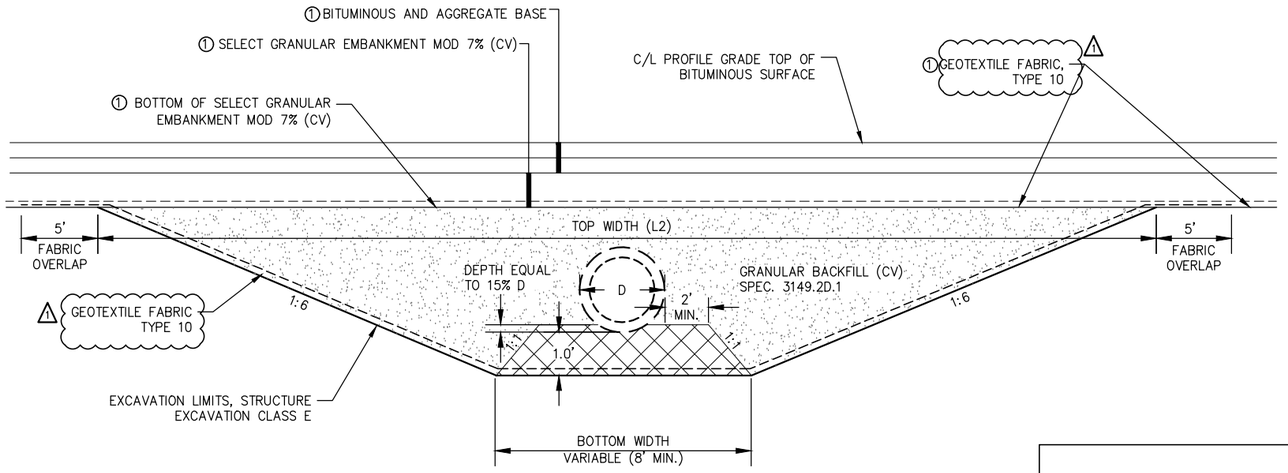
REVISION
⚠1 4-22-2024

TYPICAL SECTIONS

SHEET NO. 14 OF 82 SHEETS

PLOT DATE: 4/24/2024 12:30:07 PM FILE: Q:\22Proj\220990\500 Drawings\Civil\220990 06.0 - Typical Sections.dwg

STORM SEWER AND CROSSLEAD TREATMENT TYPE A



PROFILE VIEW
NOT TO SCALE

NOTES

1. EXCAVATION AND EMBANKMENT FOR THE PLACEMENT OF CULVERT AND PIPE SEWERS IS INCIDENTAL EXCEPT WHERE A PIPE TREATMENT IS REQUIRED. SEE CHARTS K AND L FOR TREATMENT LOCATIONS AND QUANTITIES.
2. EXCAVATION WILL BE PAID FOR AS STRUCTURE EXCAVATION, CLASS E (2451).
3. MnDOT SPEC. 2501 SHALL APPLY TO CULVERT PIPE INSTALLATION. MnDOT SPEC. 2503 SHALL APPLY TO PIPE SEWER.
4. ALL GRANULAR MATERIAL ITEMS ARE TO BE MEASURED ON THE BASIS OF COMPACTED VOLUME (C.V.).
5. ALL DIMENSIONS AND SLOPES SHOWN ARE NOMINAL.
6. TREATMENT SLOPES SHALL NOT IMPLY A SAFE TRENCH, SOIL CONDITIONS MAY REQUIRE THE CONTRACTOR TO USE A TRENCH BOX OR LAY BACK THE SLOPES. ADDITIONAL EXCAVATION AND BACK FILL REQUIRED TO IMPROVE SLOPE CONDITIONS SHALL BE CONSIDERED INCIDENTAL.

KEY NOTES

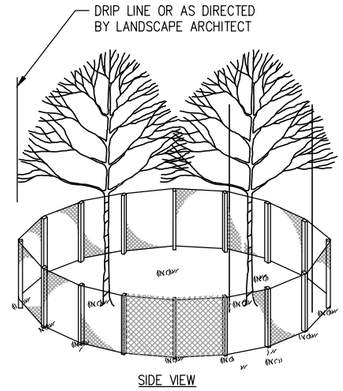
① SEE TYPICAL SECTION SHEETS FOR DEPTH AND PAY ITEMS OF ROADWAY ELEMENTS.

LEGEND

D=OUTSIDE DIAMETER OF ROUND PIPE OR SPAN OF ARCH PIPE

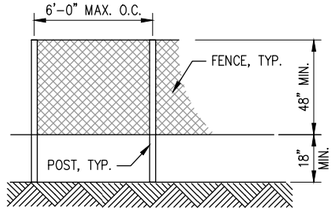
DENOTES GRANULAR BEDDING (CV) MnDOT SPEC. 3149.2F OR CRUSHED ROCK

GRANULAR BACKFILL (CV) SPEC. 3149.2D.1



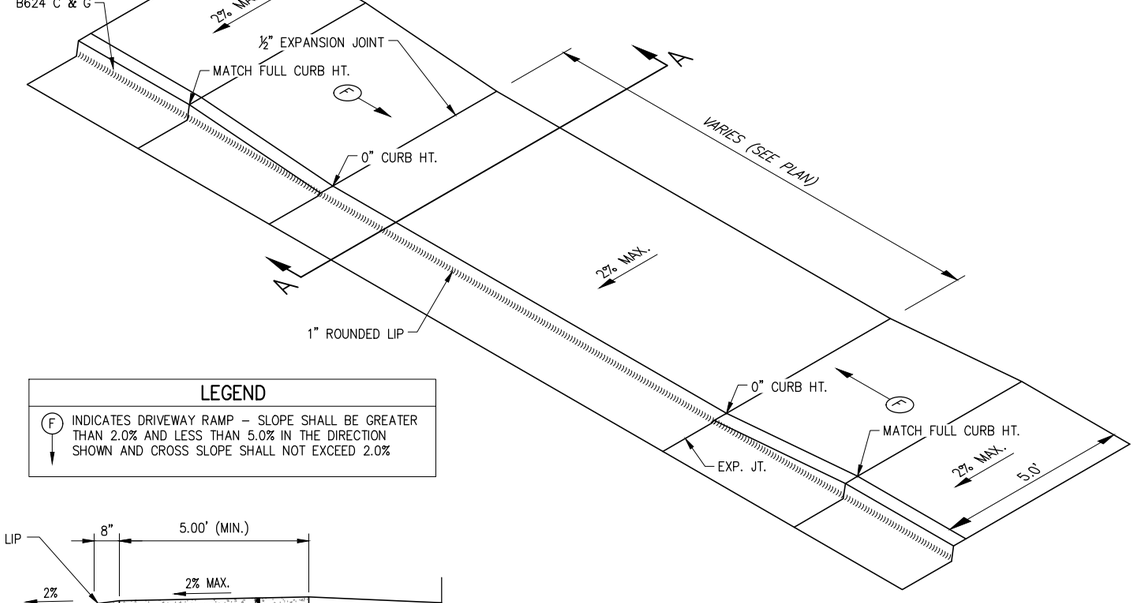
SIDE VIEW

NOTES:
1. THE FENCE SHALL BE LOCATED AT THE DRIP LINE OF THE TREE TO BE SAVED AND IN NO CASE CLOSER THAN 5 FEET TO THE TRUNK OF ANY TREE.
2. FENCE POSTS SHALL BE EITHER STANDARD STEEL POSTS OR WOOD POSTS A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQ. IN.
3. THE FENCE MAY BE EITHER 48" HIGH CHAINLINK FENCE, 48" HIGH SNOW FENCE, OR ANY OTHER MATERIAL AS APPROVED BY THE ENGINEER OR LANDSCAPE ARCHITECT.
4. THE CONTRACTOR SHALL INSTALL AND MAINTAIN THROUGHOUT CONSTRUCTION, A PROTECTIVE LAYER OF MULCH AT A MINIMUM DEPTH OF 12 INCHES FOR VEHICLE ACCESS.

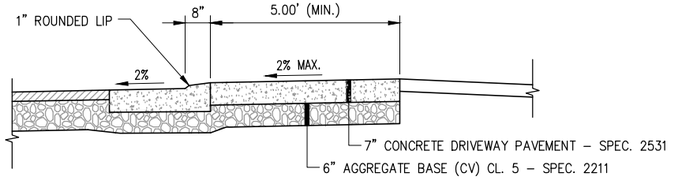


POST AND FENCE DETAIL

TREE PROTECTION



LEGEND
(F) INDICATES DRIVEWAY RAMP – SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%



SECTION A-A

DRIVEWAY DETAIL

LHB PROJECT NO. 220990

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MEGAN GOPLIN
PRINTED NAME

Megan Goplin
SIGNATURE

2-9-2024
DATE

53018
LIC. NO.

S.A.P. 069-600-050

CITY PROJECT NO. 1940

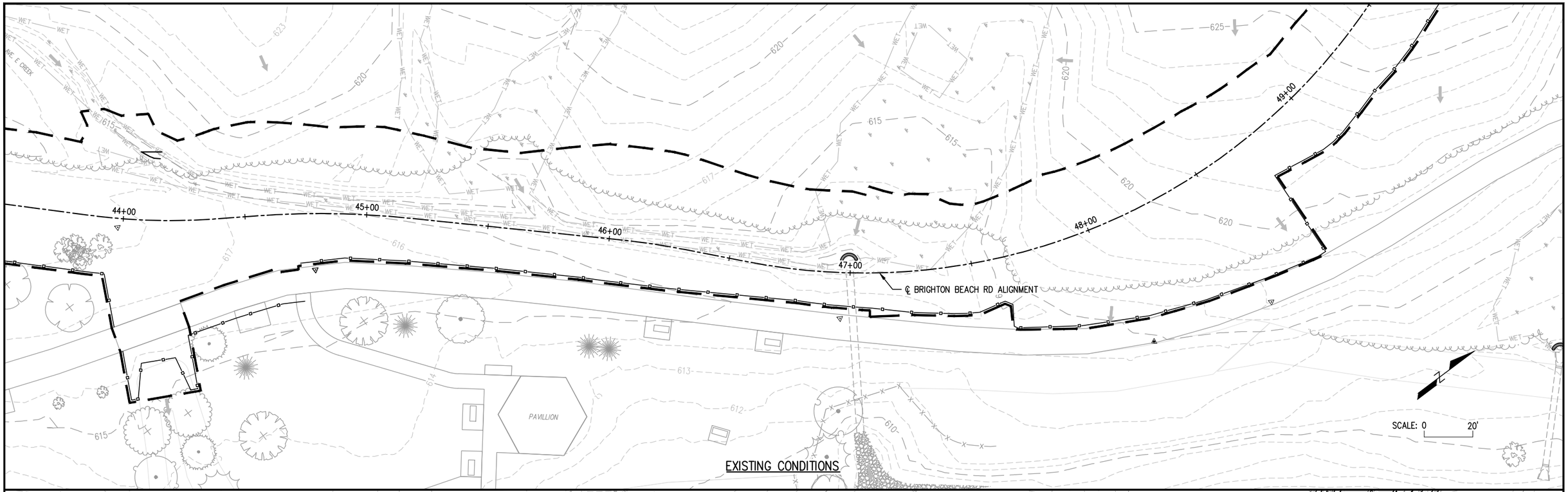
BRIGHTON BEACH ROADWAY

REVISION
⚠1 4-22-2024

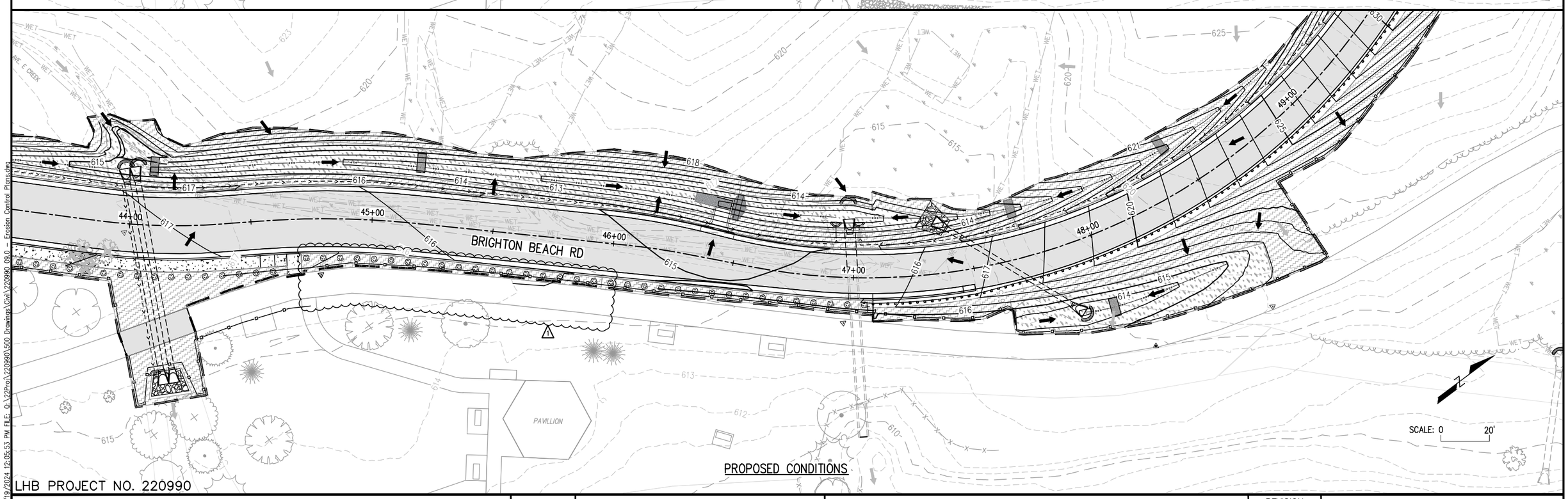
CONSTRUCTION DETAILS

SHEET NO. 32 OF 82 SHEETS

PLOT DATE: 4/24/2024 12:00:38 PM FILE: Q:\22Proj\220990\500 Drawings\Civil\220990 07.0 - Construction Details.dwg



EXISTING CONDITIONS



PROPOSED CONDITIONS

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NATHAN J. BRUNO
PRINTED NAME

SIGNATURE

2-9-2024
DATE

46584
LIC. NO.

S.A.P. 069-600-050

CITY PROJECT NO. 1940

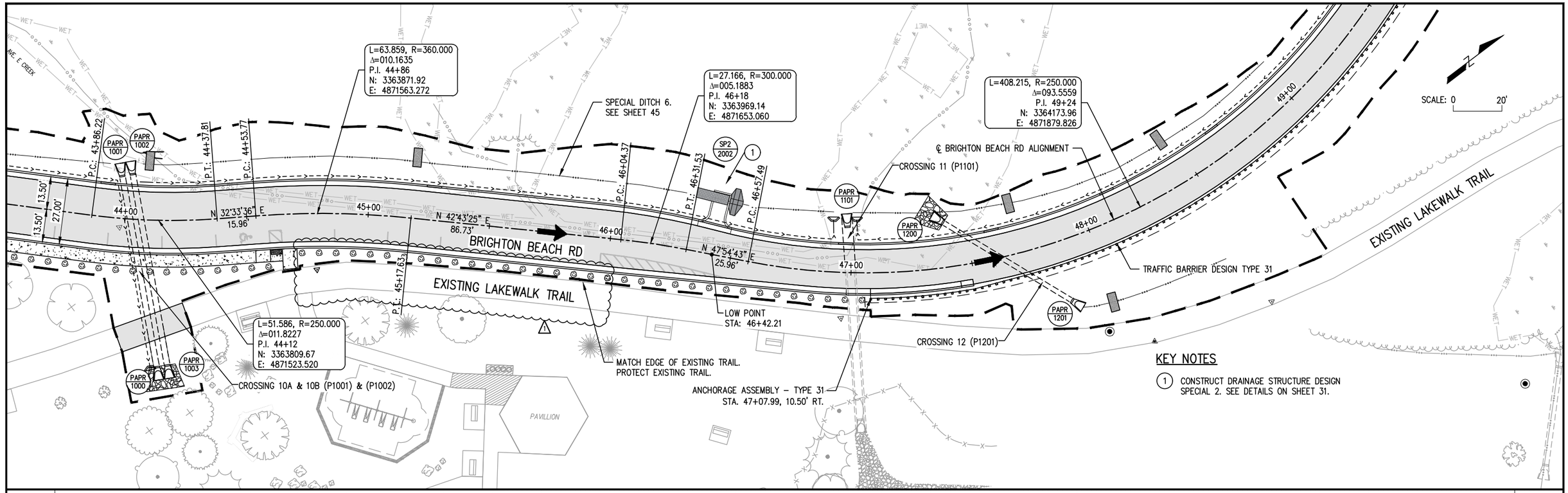
BRIGHTON BEACH ROADWAY

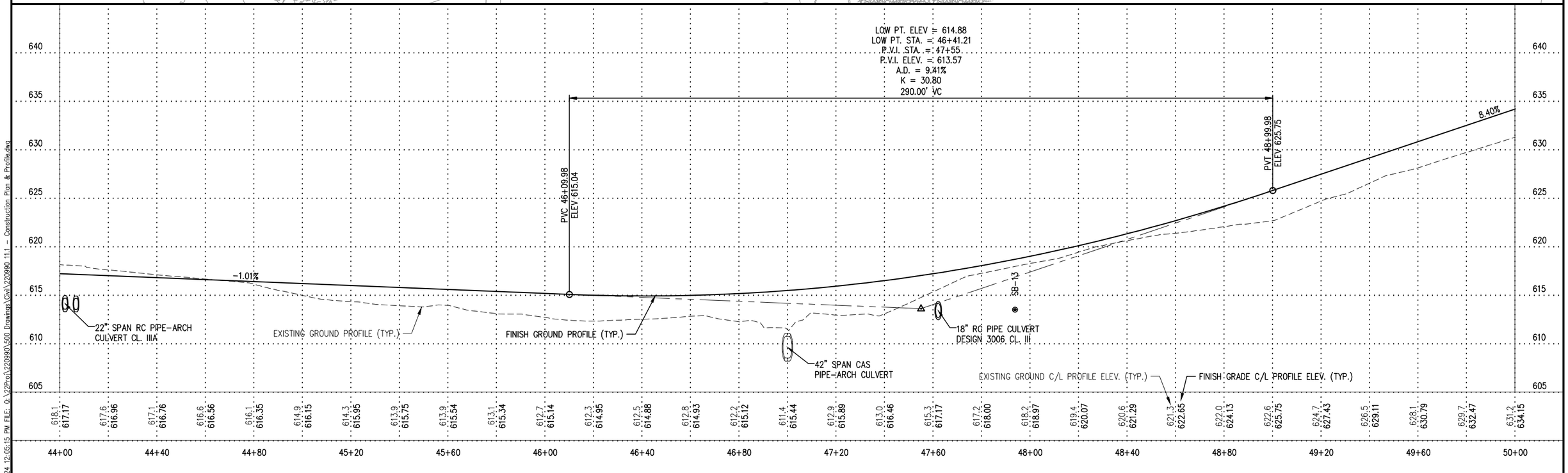
REVISION
⚠ 4-22-2024

EROSION CONTROL PLANS

SHEET NO. 57 OF 82 SHEETS

PLOT DATE: 4/19/2024 12:05:53 PM FILE: Q:\22Proj\220990\500 Drawings\Civil\220990_09.0 - Erosion Control Plans.dwg

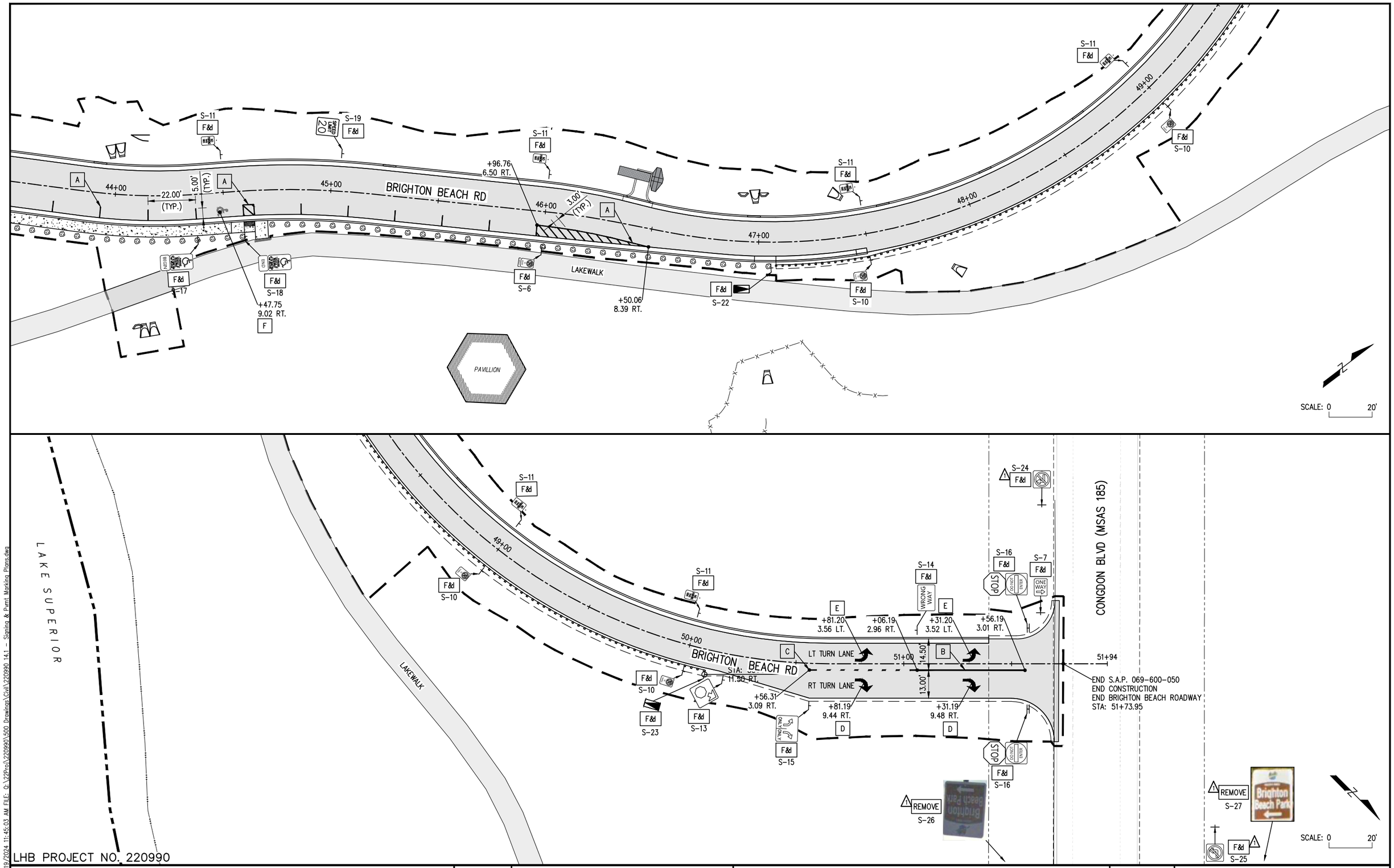




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PLOT DATE: 4/19/2024 12:05:15 PM FILE: Q:\22Proj\220990\500 Drawings\Civil\220990 11.1 - Construction Plan & Profile.dwg



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MEGAN GOPLIN
PRINTED NAME

SIGNATURE

2-9-2024
DATE

53018
LIC. NO.

S.A.P. 069-600-050

CITY PROJECT NO. 1940

BRIGHTON BEACH ROADWAY

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4-22-2024

SIGNING & PAVEMENT MARKING PLAN

SHEET NO. 76 OF 82 SHEETS

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