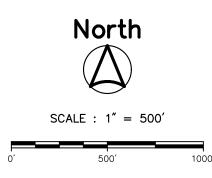
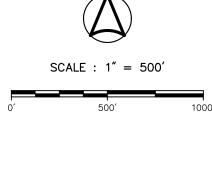
### CITY OF MUSKEGON MUSKEGON COUNTY, MICHIGAN

# STREET AND UTILITY IMPROVEMENTS

PECK STREET: LAKETON TO MERRILL

SRF PROJECT #5679-01 DWRF PROJECT #7466-01





#### SOIL BORING GENERAL NOTES

WITHIN EACH SOIL BORING, SOIL SAMPLES WERE OBTAINED BY THE STANDARD PENETRATION TEST METHOD, ASTM D1586, WHEREBY A SPLIT-SPOON SAMPLER IS DRIVEN THREE SUCCESSIVE 6-INCH INCREMENTS WITH A 140 POUND WEIGHT FALLING 30 INCHES. THE NUMBER OF BLOWS REQUIRED TO DRIVE THE SAMPLER FOR EACH INCREMENT IS PRESENTED ON THE SOIL BORING LOGS.

THE SOIL BORING LOGS SHOWN ON THE CONSTRUCTION PLANS ARE BEING FURNISHED FOR YOUR CONVENIENCE AND GENERAL INFORMATION ONLY. THE DATA SHOWN ON THE BORING LOGS REPRESENTS SOIL AND GROUNDWATER CONDITIONS ENCOUNTERED AT THE RESPECTIVE BORING LOCATIONS. VARIATIONS MAY OCCUR BETWEEN THESE LOCATIONS. ADDITIONALLY, THE STRATIGRAPHIC LINES REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES; HOWEVER, THE TRANSITION MAY BE MORE GRADUAL THAN WHAT IS SHOWN. FURTHERMORE, GROUNDWATER LEVELS CAN FLUCTUATE WITH SEASONAL VARIATIONS AND FOLLOWING PERIODS OF PROLONGED PRECIPITATION. THE BIDDER WILL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH SUBSURFACE CONDITIONS BY WHATEVER MEANS HE DEEMS NECESSARY AND SHALL MAKE HIS OWN DETERMINATIONS

THE BIDDER BY SUBMITTING A BID, WAIVES ALL CLAIM FOR DAMAGES WHICH HE MAY SUFFER BY REASONS OF THE INADEQUACIES OR DISCREPANCIES OF THE INFORMATION SHOWN ON THESE SOIL BORING LOGS AND UNDERSTANDS THAT NO COMPENSATION WILL BE PAID TO HIM DUE TO AN INADEQUACY OR DISCREPANCY IN THIS DATA.

#### GENERAL NOTES

- CONTRACTOR TO CALL MISS DIG (CALL TOLL FREE 1-800-482-7171) THREE WORKING DAYS BEFORE STARTING YOUR PROJECT. (EXCLUDING WEEKENDS AND
- 2. CONTRACTOR SHALL PRESERVE ALL GOVERNMENT AND PROPERTY CORNERS.

#### SOIL EROSION CONTROL NOTES

**TEMPORARY SEEDING:** TEMPORARY SEEDING SHALL BE CAST ON ALL DISTURBED AREAS AS DIRECTED BY THE ENGINEER WITHIN 1 WEEK OF DISTURBANCE.

#### UTILITIES

ELECTRIC-DISTRIBUTION CONSUMERS ENERGY 700 E STERNBERG RD. MUSKEGON, MI 49441 PHONE: (231) 332-2682 ATTN: JOÈL BROWN JOEL.M.BROWN@CMSENERGY.COM

DTE ENERGY 2359 OLTHOF DR. MUSKEGON, MI, 49444 PHONE: (231) 777-4034 ATTN: VINCE DUCA DUCAV@DTEENERGY.COM

WATER & SANITARY CITY OF MUSKEGON 1350 E. KEATING AVE. MUSKEGON, MI 49442 PHONE: (231) 724-4184 ATTN: DAVE BAKER

STORM SEWER CITY OF MUSKEGON 1350 E. KEATING AVE. MUSKEGON, MI 49442 PHONE: (231) 724-6992 ATTN: VERNON BERNDT VERN.BERNDT@SHORELINECITY.COM COMMUNICATION

FRONTIER COMMUNICATIONS

PHONE: (231) 375-5112

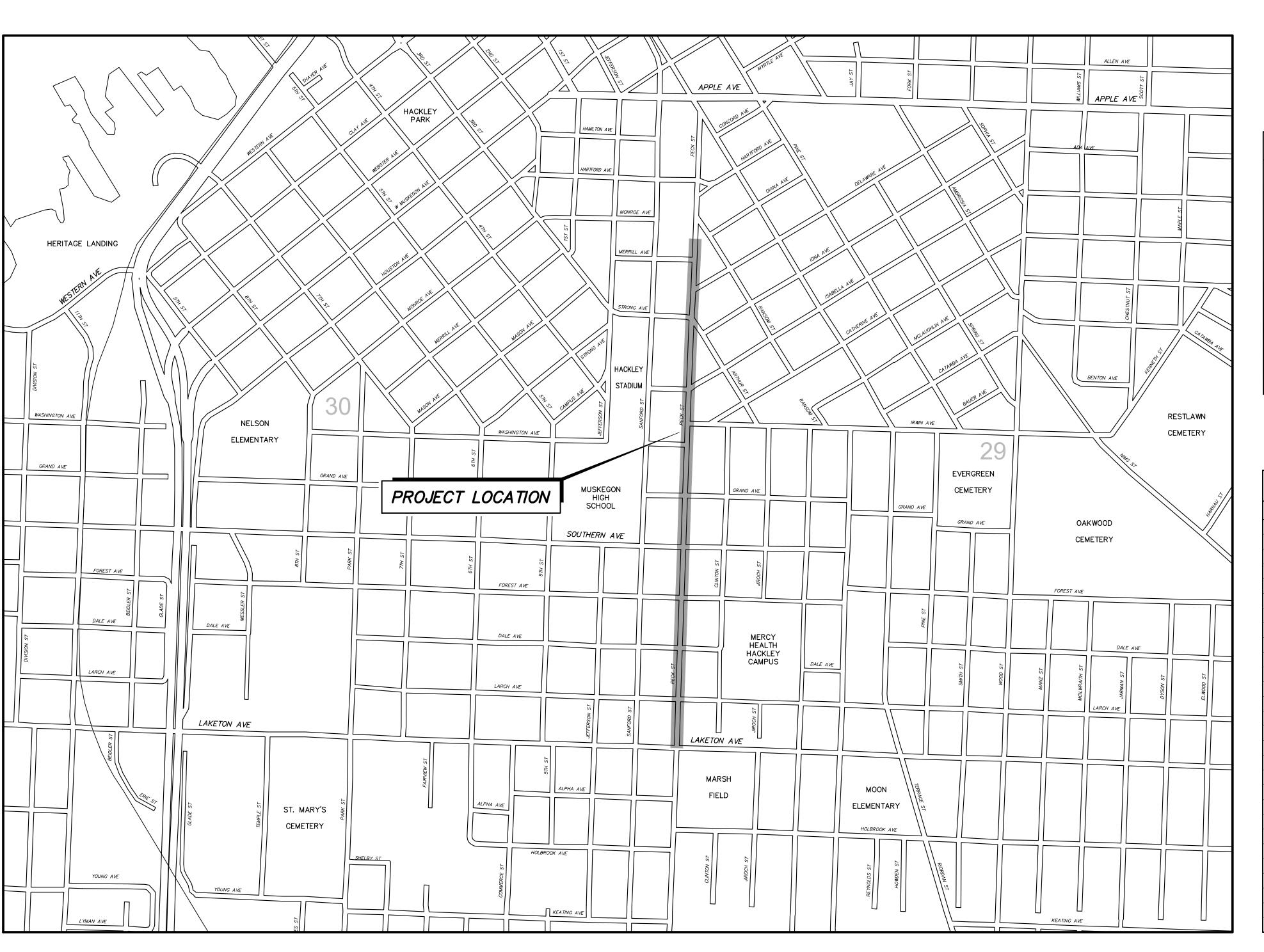
ATTN: JON CHARLAND

860 TERRACE ST. MUSKEGON, MI 49443 PHONE: (231) 727-1319 ATTN: DAVE FLERMOEN DAVID.B.FLERMOEN@FTR.COM CABLE TELEVISION COMCAST MUSKEGON, MI 49441

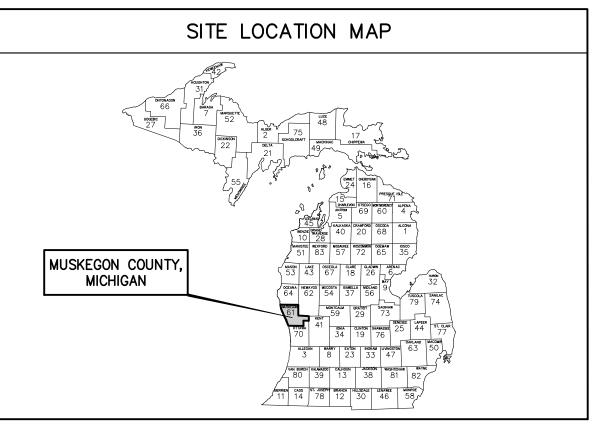
JONATHAN\_CHARLAND@COMCAST.COM

DAVE.BAKER@SHORELINECITY.COM

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

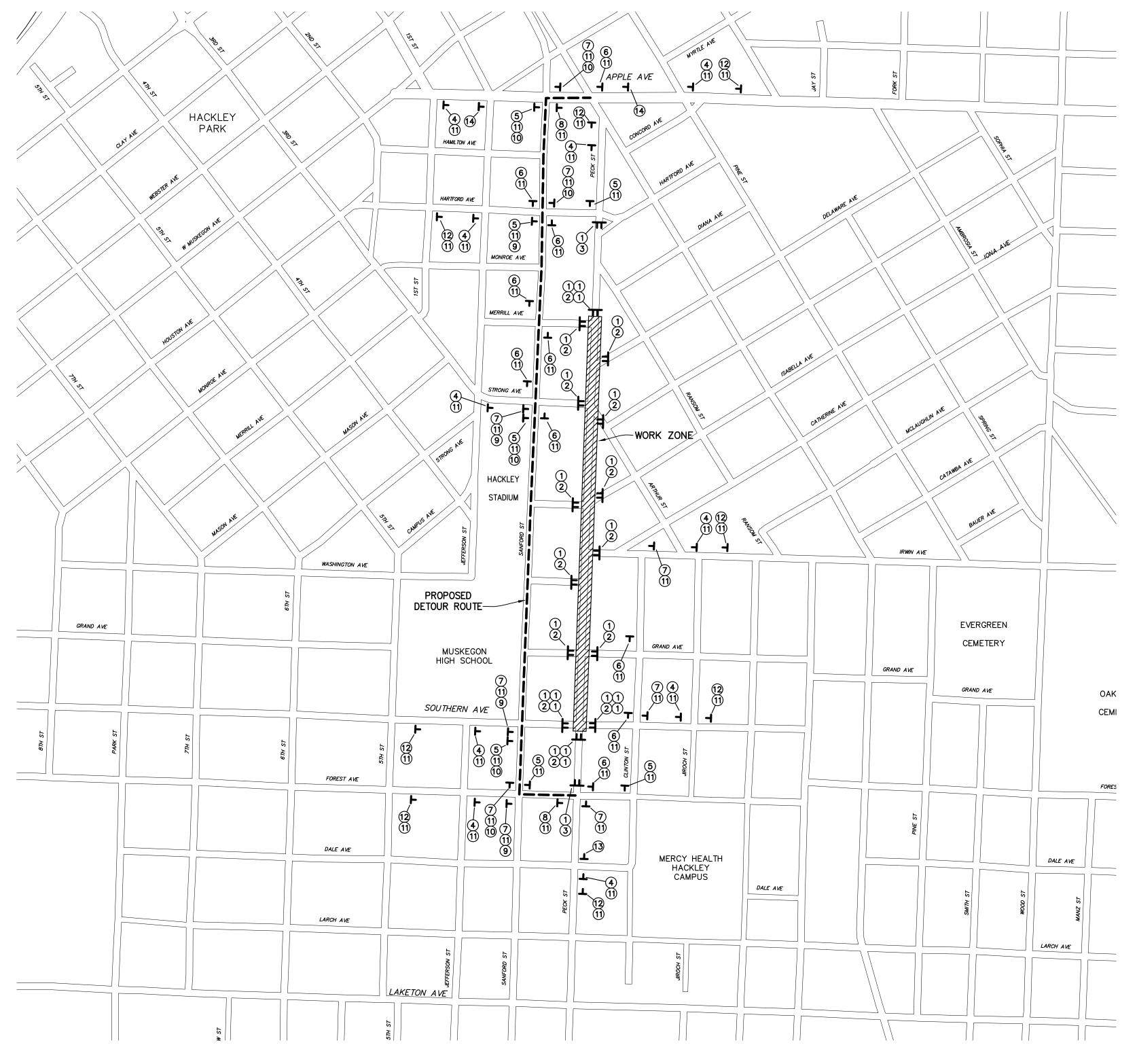






	SHEET INDEX
SHEET No.	DESCRIPTION
1	COVER SHEET
2	MAINTENANCE OF TRAFFIC
3	MAINTENANCE OF TRAFFIC
4	TYPICAL CROSS SECTIONS & DETAILS
5	REMOVAL PLAN (STA. 19+00 TO STA. 27+00)
6	REMOVAL PLAN (STA. 27+00 TO STA. 35+00)
7	REMOVAL PLAN (STA. 35+00 TO STA. 43+00)
8	REMOVAL PLAN (STA. 43+00 TO STA. 52+00)
9	REMOVAL PLAN (STA. 52+00 TO STA. 61+00)
10	PECK ST. STREET IMPROVEMENTS (STA. 19+00 TO STA. 27+00)
11	PECK ST. STREET IMPROVEMENTS (STA. 27+00 TO STA. 35+00)
12	PECK ST. STREET IMPROVEMENTS (STA. 35+00 TO STA. 43+00)
13	PECK ST. STREET IMPROVEMENTS (STA. 43+00 TO STA. 52+00)
14	PECK ST. STREET IMPROVEMENTS (STA. 52+00 TO STA. 61+00)
15	PECK ST. UTILITY IMPROVEMENTS (STA. 19+00 TO STA. 27+00)
16	PECK ST. UTILITY IMPROVEMENTS (STA. 27+00 TO STA. 35+00)
17	PECK ST. UTILITY IMPROVEMENTS (STA. 35+00 TO STA. 43+00)
18	PECK ST. UTILITY IMPROVEMENTS (STA. 43+00 TO STA. 52+00)
19	PECK ST. UTILITY IMPROVEMENTS (STA. 52+00 TO STA. 61+00)
20	GRADING DETAILS
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22	GRADING DETAILS
23	GRADING DETAILS
24	SIDEWALK GRADING DETAILS
25	SIDEWALK GRADING DETAILS
26	SIDEWALK GRADING DETAILS
27	PAVEMENT MARKINGS & SIGNAGE PLAN
28	PAVEMENT MARKINGS & SIGNAGE PLAN





LEGEND

TYPE III BARRICADE, HIGH INTENSITY

CONSTRUCTION SIGN

DETOUR SIGNING REQUIREMENTS

	DET	JUR SIGNING REQUIRE	INICIA 13	
#	SIGN DESIGNATION	SIGN DESCRIPTION	SIGN SIZE	NO. REQ.
1	TYPE III BARRICADE	TYPE III BARRICADE, HIGH INTENSITY, DOUBLE SIDED, LIGHTED	NA	24
2	R11-2	ROAD CLOSED	60" X 30"	14
3	R11-4	ROAD CLOSED TO THRU TRAFFIC	60″ X 30″	2
4	W20-2	DETOUR AHEAD	48" X 48"	10
5	M4-9R	DETOUR RIGHT	30" X 24"	7
6	M4-9	DETOUR THRU	30" X 24"	10
7	M4-9L	DETOUR LEFT	30" X 24"	9
8	M4-8a	END DETOUR	24" X 18"	2
9	** M3-1	NORTH	24" X 12"	4
10	** M3-3	SOUTH	24" X 12"	6
11	D3-1	PECK ST.	48″ X 12″	46
12	W20-1	ROAD WORK AHEAD	48" X 48"	8
13	SPECIAL	PECK ST. CLOSED AT SOUTHERN AVE. FOLLOW DETOUR	60" X 30"	1
14	SPECIAL	PECK ST. CLOSED AT MERRILL AVE. FOLLOW DETOUR	60" X 30"	2

\*\* M3-SERIES SIGNS USED WITH DETOUR TO BE BLACK LETTERS AND A BLACK BORDER ON A FLUORESCENT ORANGE BACKGROUND

MAINTENANCE OF TRAFFIC PLAN

SCALE: 1" = NONE

North

NO. REVISIONS BY DATE DRAWN S.M.T.

DATE MAY '20

CHECKED S.M.T.

DATE MAY '20

CHECKED MAY '20

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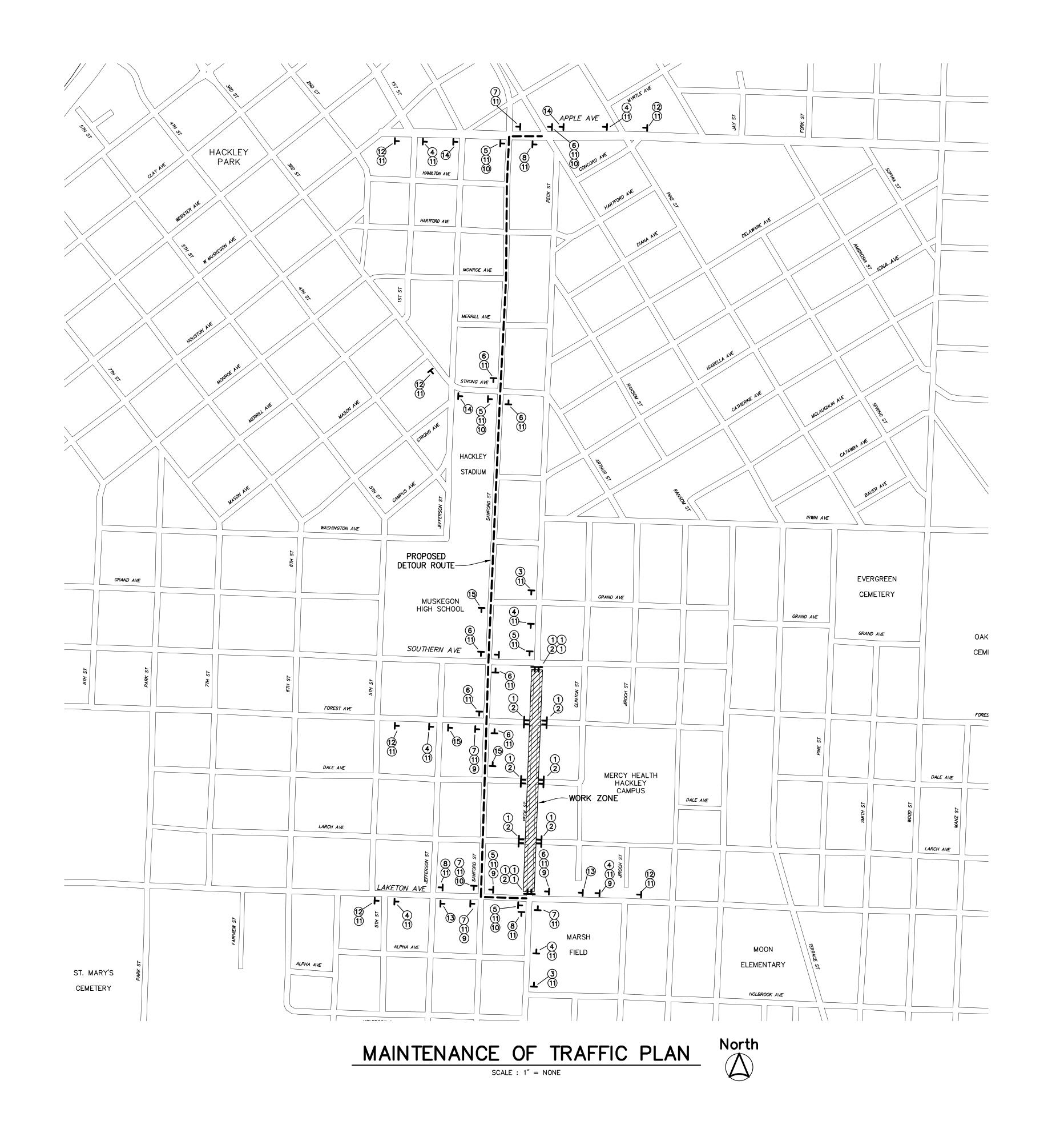
CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN

SOUTHERN AVE. TO NORTH
OF MERRILL AVE.

MAINTENANCE OF TRAFFIC — STAGE 1

PROJECT NO. 2190730
SHEET NO.

2 0 28



LEGEND

TYPE III BARRICADE, HIGH INTENSITY

CONSTRUCTION SIGN

	DETO	OUR SIGNING REQUIRE	MENTS	
#	SIGN DESIGNATION	SIGN DESCRIPTION	SIGN SIZE	NO. REQ.
1	TYPE III BARRICADE	TYPE III BARRICADE, HIGH INTENSITY, DOUBLE SIDED, LIGHTED	NA	12
2	R11-2	ROAD CLOSED	60" X 30"	8
3	W20-3	ROAD CLOSED AHEAD	60" X 30"	2
4	W20-2	DETOUR AHEAD	48" X 48"	7
5	M4-9R	DETOUR RIGHT	30" X 24"	5
6	M4-9	DETOUR THRU	30" X 24"	8
7	M4-9L	DETOUR LEFT	30" X 24"	5
8	M4-8a	END DETOUR	24" X 18"	3
9	** M3-1	NORTH	24" X 12"	5
10	** M3-3	SOUTH	24" X 12"	5
11	D3-1	PECK ST.	48″ X 12″	38
12	W20-1	ROAD WORK AHEAD	48" X 48"	6
13	SPECIAL	PECK ST. CLOSED FOLLOW DETOUR	60″ X 30″	2
14	SPECIAL	PECK ST. CLOSED AT FOREST AVE. FOLLOW DETOUR	60" X 30"	3
15	SPECIAL	HOSPITAL ACCESS VIA SOUTHERN AVE.	60" X 30"	3

\*\* M3-SERIES SIGNS USED WITH DETOUR TO BE BLACK LETTERS AND A BLACK BORDER ON A FLUORESCENT ORANGE BACKGROUND

NOTE: ACCESS TO MERCY HEALTH HACKLEY CAMPUS SHALL REMAIN OPEN AT ALL TIMES. FOREST AVENUE SHALL BE OPEN FOR EMERGENCY VEHICLE TRAFFIC ONLY.

NO. REVISIONS BY DATE DRAWN S.M.T.

DATE MAY '20

CHECKED S.M.T.

DATE MAY '20

CHECKED MAY '20

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CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN

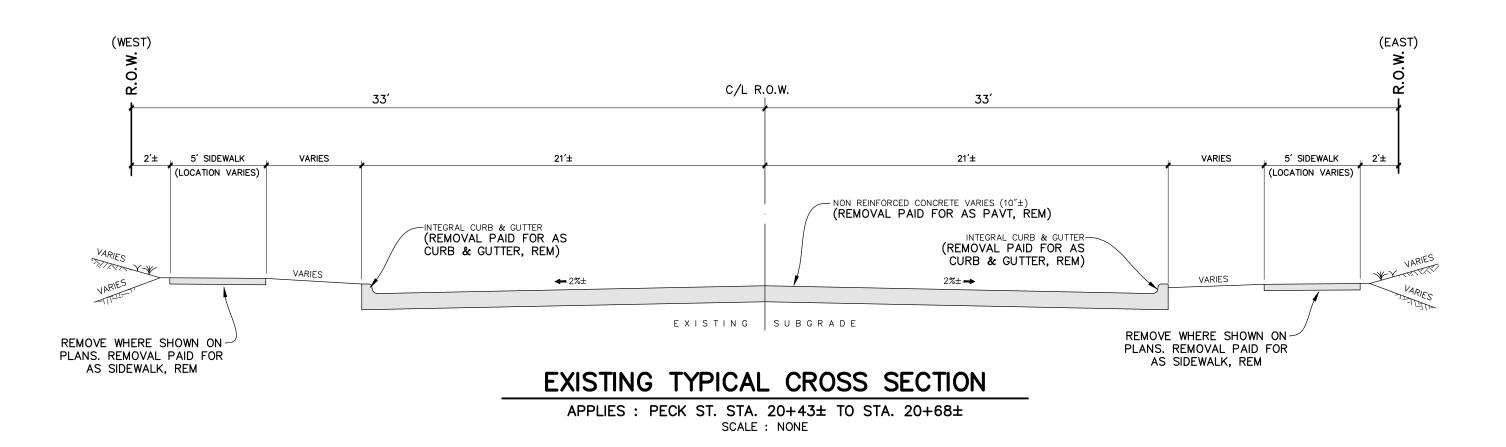
LAKETON AVE. TO SOUTHERN AVE.

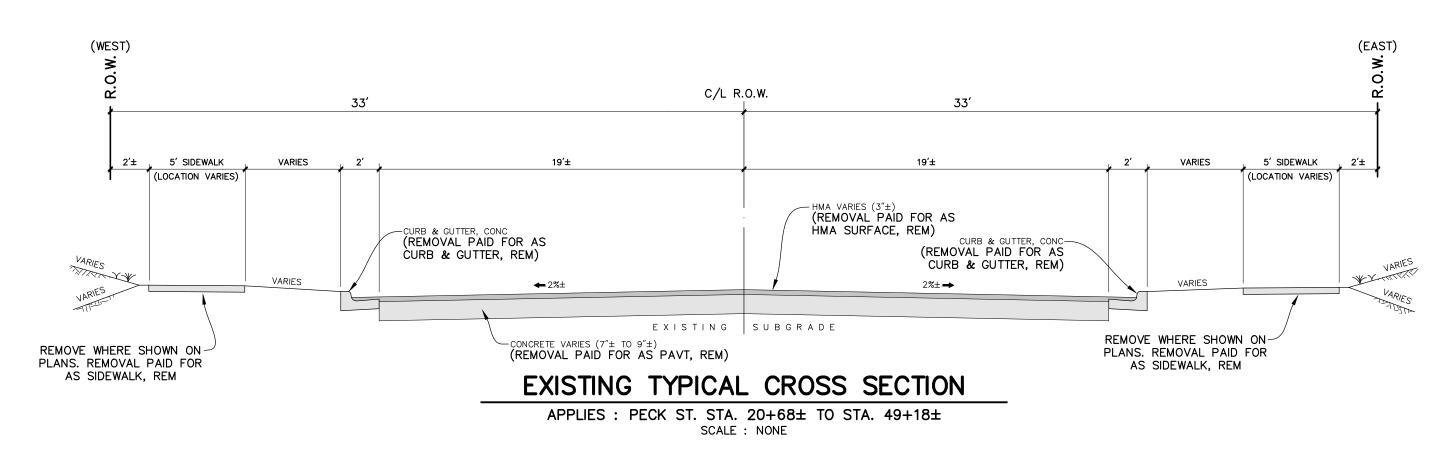
MAINTENANCE OF TRAFFIC — STAGE 2

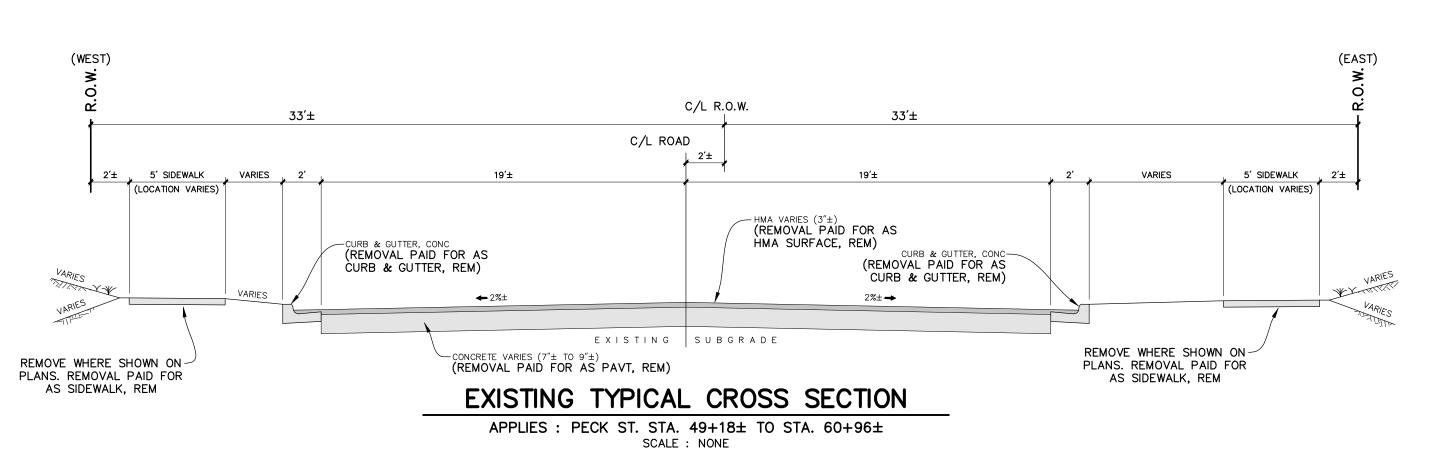
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SHEET NO.

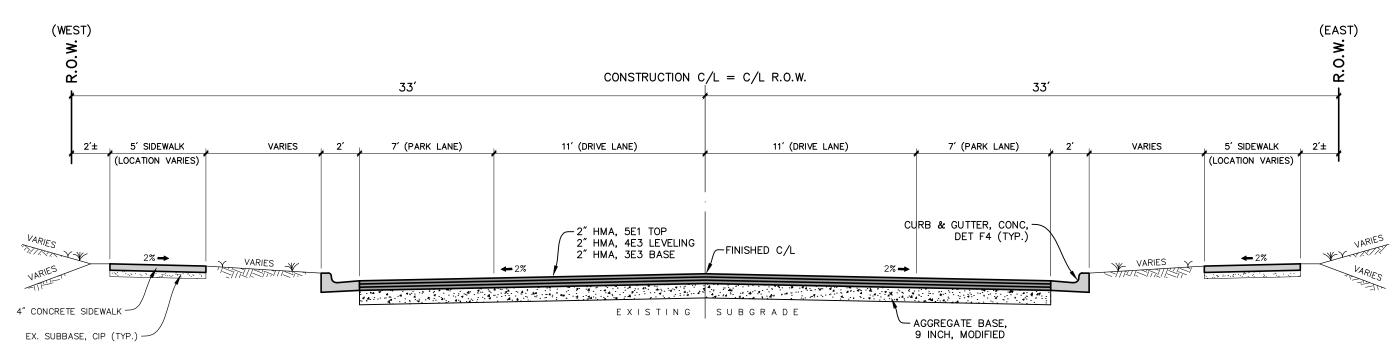
3 OF 28

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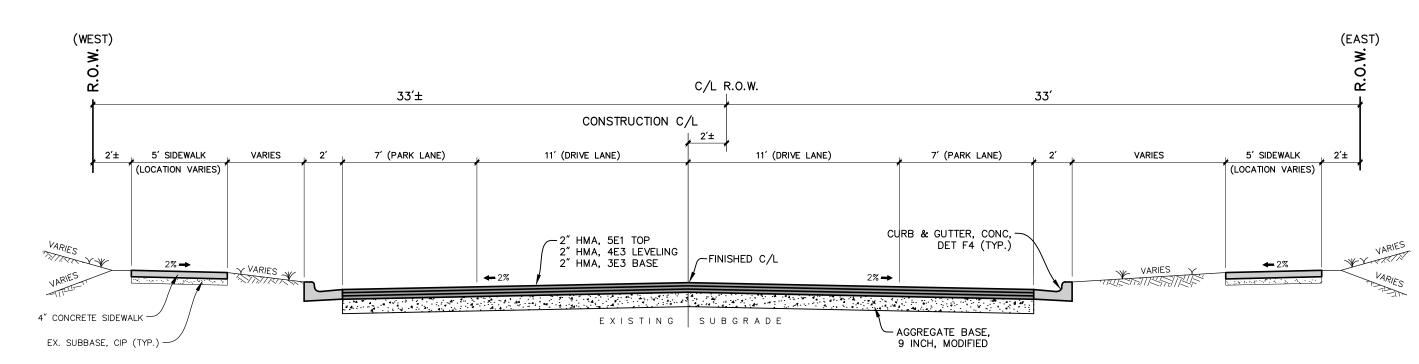








## PROPOSED TYPICAL CROSS SECTION APPLIES: PECK ST. STA. 20+43± TO STA. 49+18± SCALE: NONE



PROPOSED TYPICAL CROSS SECTION

APPLIES: PECK ST. STA. 49+18± TO STA. 60+96±
SCALE: NONE

#### HOT MIX ASPHALT APPLICATION TABLE

IDENT. #	PAY ITEM	MIXTURE	APPLICATION RATE	PERFORMANCE GRADE BINDER	REMARKS
5E1	HMA, 5E1	5E1	220 LBS/SYD	PG 64-28	STREET TOP
4E3	HMA, 4E3	4E3	220 LBS/SYD	PG 64-28	STREET LEVELING
3E3	HMA, 3E3	3E3	220 LBS/SYD	PG 64-28	STREET BASE
NOTES:	OND COAT (MI	OOT SS_1h)	SHALL RE APPL	LIED <b>@</b> 0.05-0.1	5 GAL/SYD
BETWEI ITEMS.	EN HMA LIFŤS. HMA BOND CO	THE COST DAT SHALL /	OF THIS WORK ALSO BE APPLIE	SHALL BE INCLU	DED IN THE HMA ICAL EDGE OF THE
2. HMA P	AVEMENT DEP	TH TO MATC	H EXISTING HMA	A PAVEMENT THI	CKNESS.

NO.	REVISIONS	BY	DATE	DRAWN
				J.J.S.
				DATE
				MAR. '20
				CHECKED
				M.R.H.
				DATE '00
				MAR. '20

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CITY OF MUSKEGON MUSKEGON COUNTY, MICHIGAN

STREET IMPROVEMENTS

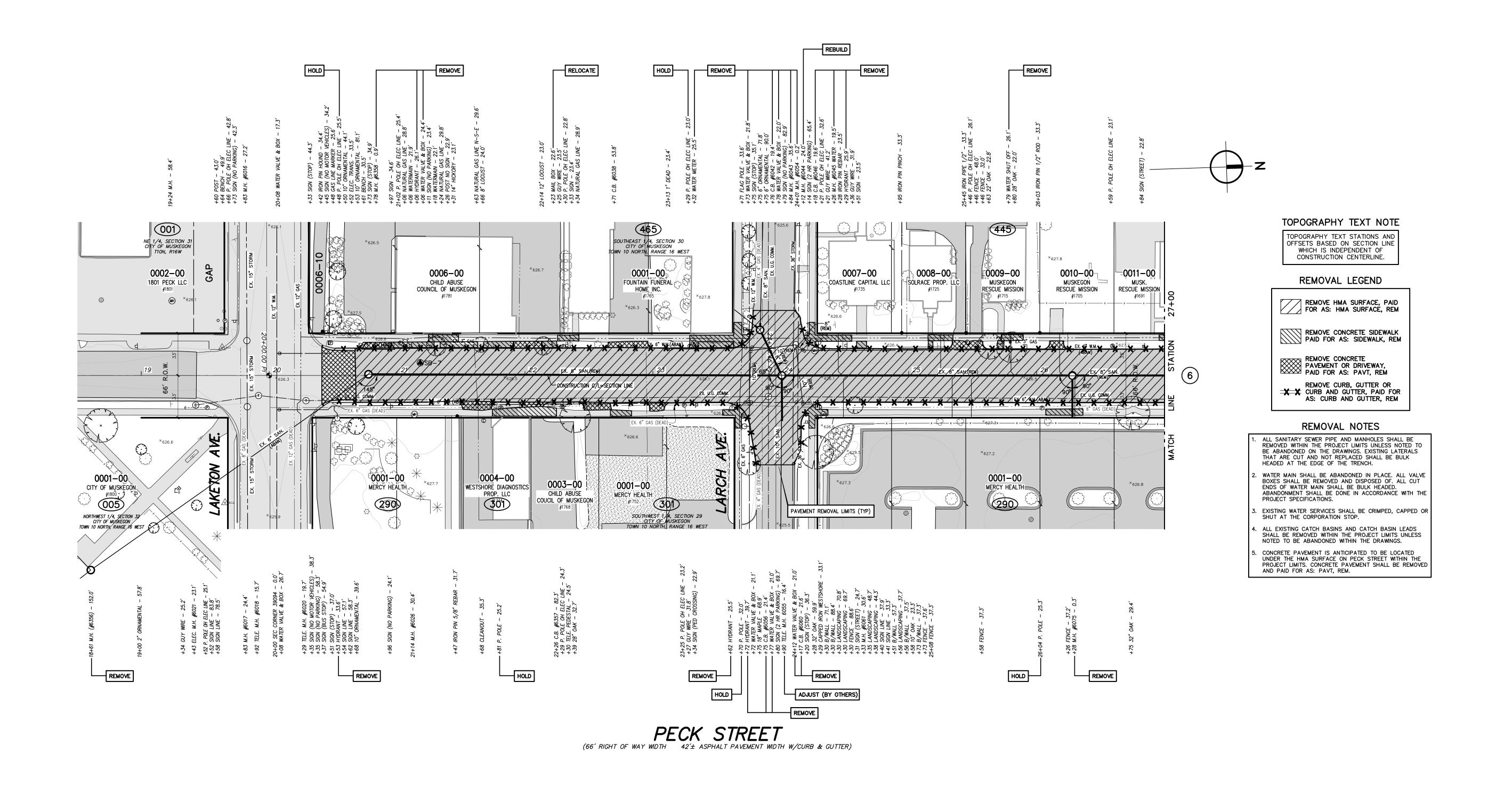
TYPICAL CROSS SECTIONS & DETAILS

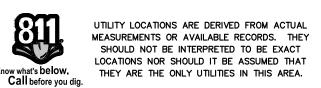
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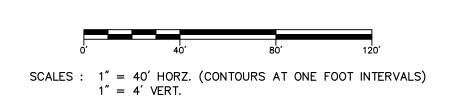
PROJECT NO.

2190730





PROJECT DATUM INFORMATION COORDINATE SYSTEM: STATE PLANE GRID ZONE: MICHIGAN SOUTH 2113 GRS 80 HORIZONTAL DATUM: NAVD 88 GEOID: GEOID 12B UNITS: INTERNATIONAL FEET PROJECT COMBINED SCALE FACTOR (PCSF) = GROUND DISTANCE = GRID DISTANCE/PCSF



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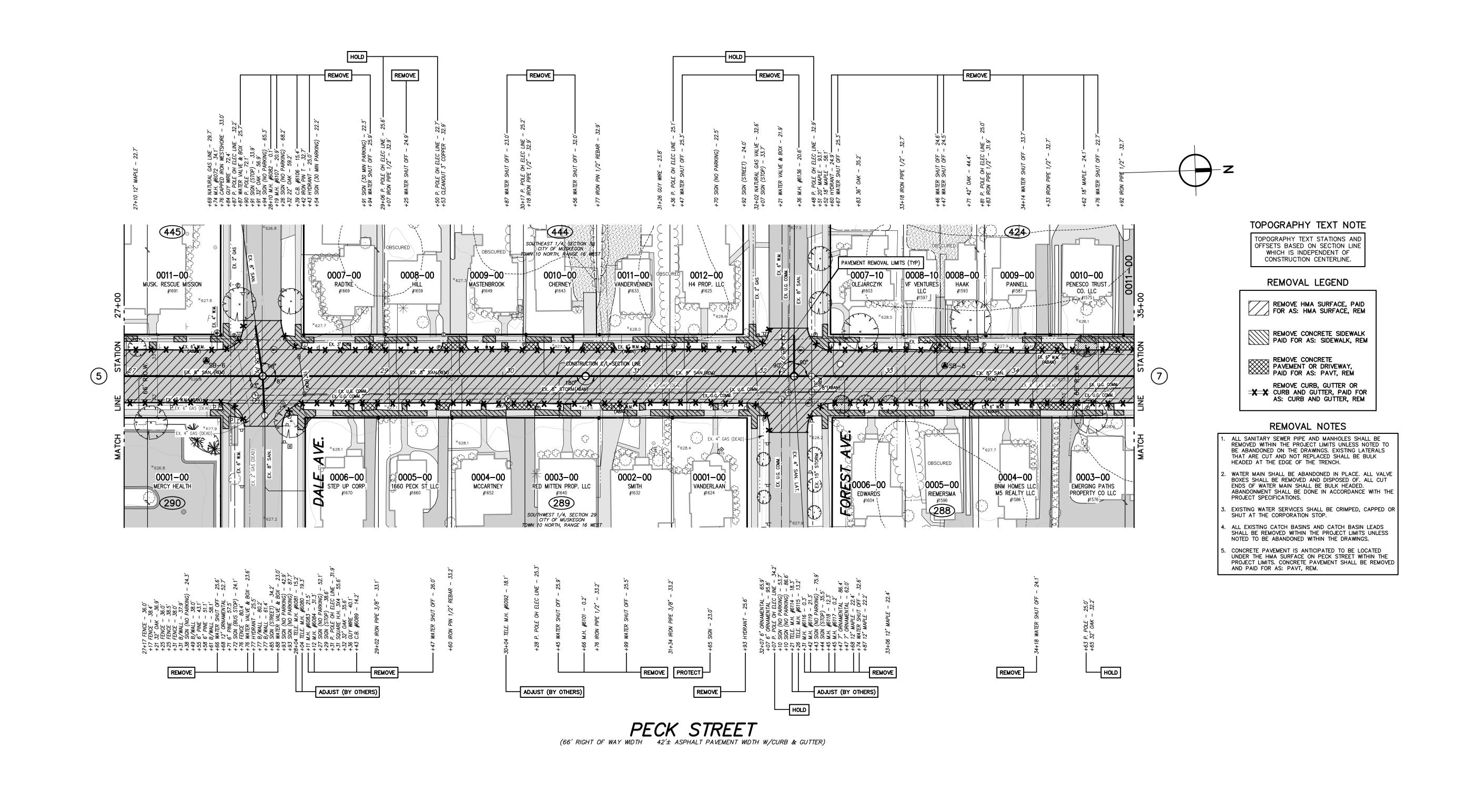
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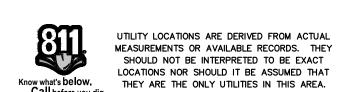
CITY OF MUSKEGON MUSKEGON COUNTY, MICHIGAN STREET IMPROVEMENTS

2190730 SHEET NO.

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REMOVAL PLAN

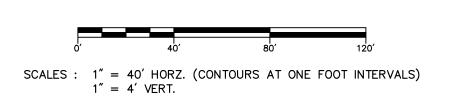




PROJECT DATUM INFORMATION

COORDINATE SYSTEM: STATE PLANE GRID
ZONE: MICHIGAN SOUTH 2113
ELLIPSOID: GRS 80
HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 88
GEOID: GEOID 12B
UNITS: INTERNATIONAL FEET

PROJECT COMBINED SCALE FACTOR (PCSF) =
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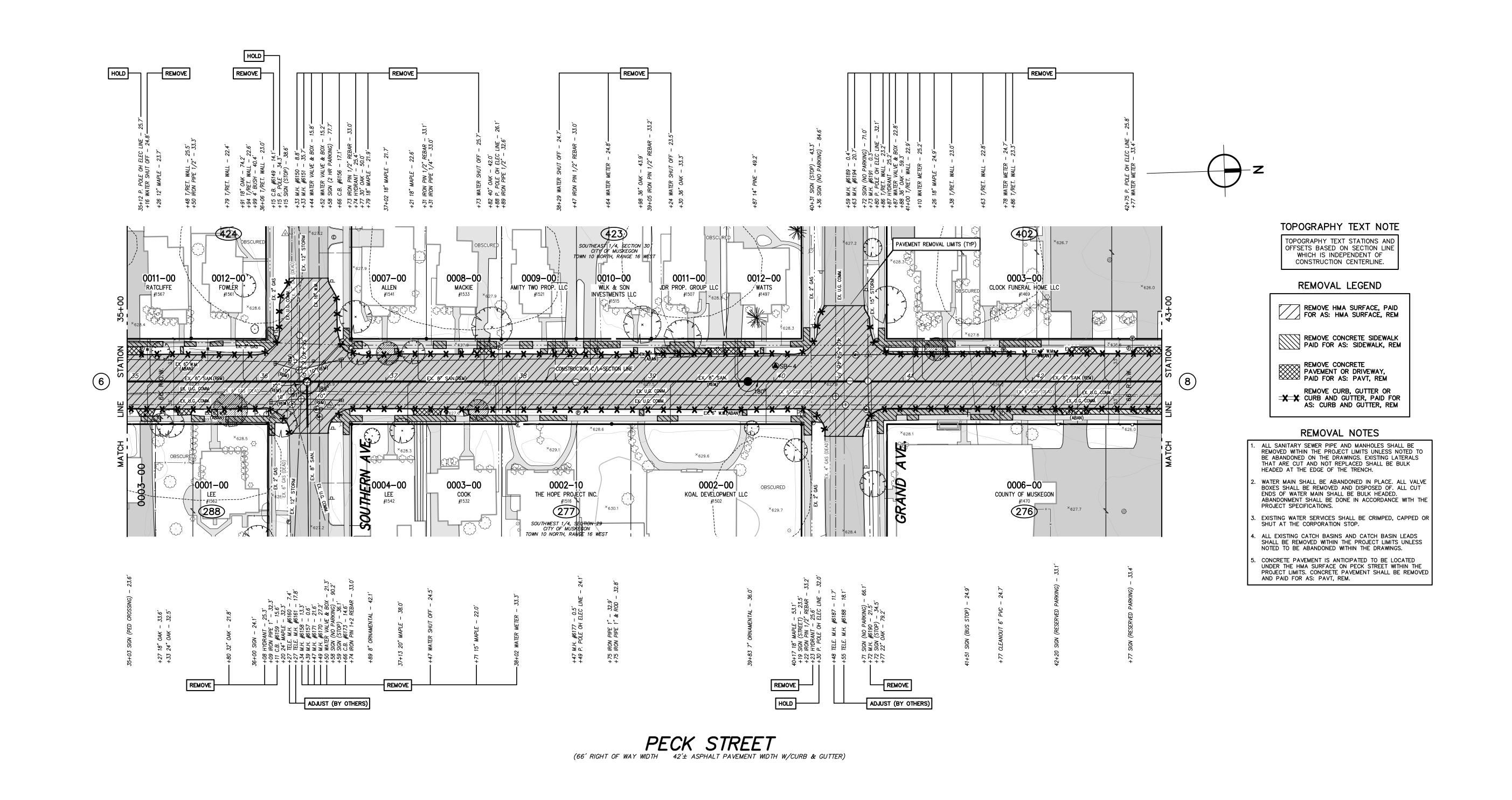
CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN

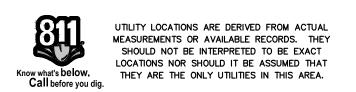
STREET IMPROVEMENTS

REMOVAL PLAN

2190730 SHEET NO.

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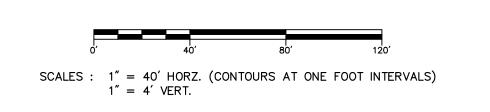


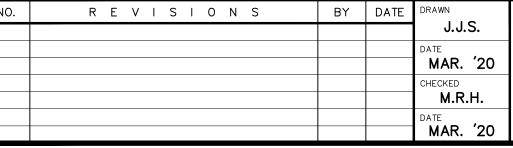


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PROJECT COMBINED SCALE FACTOR (PCSF) =
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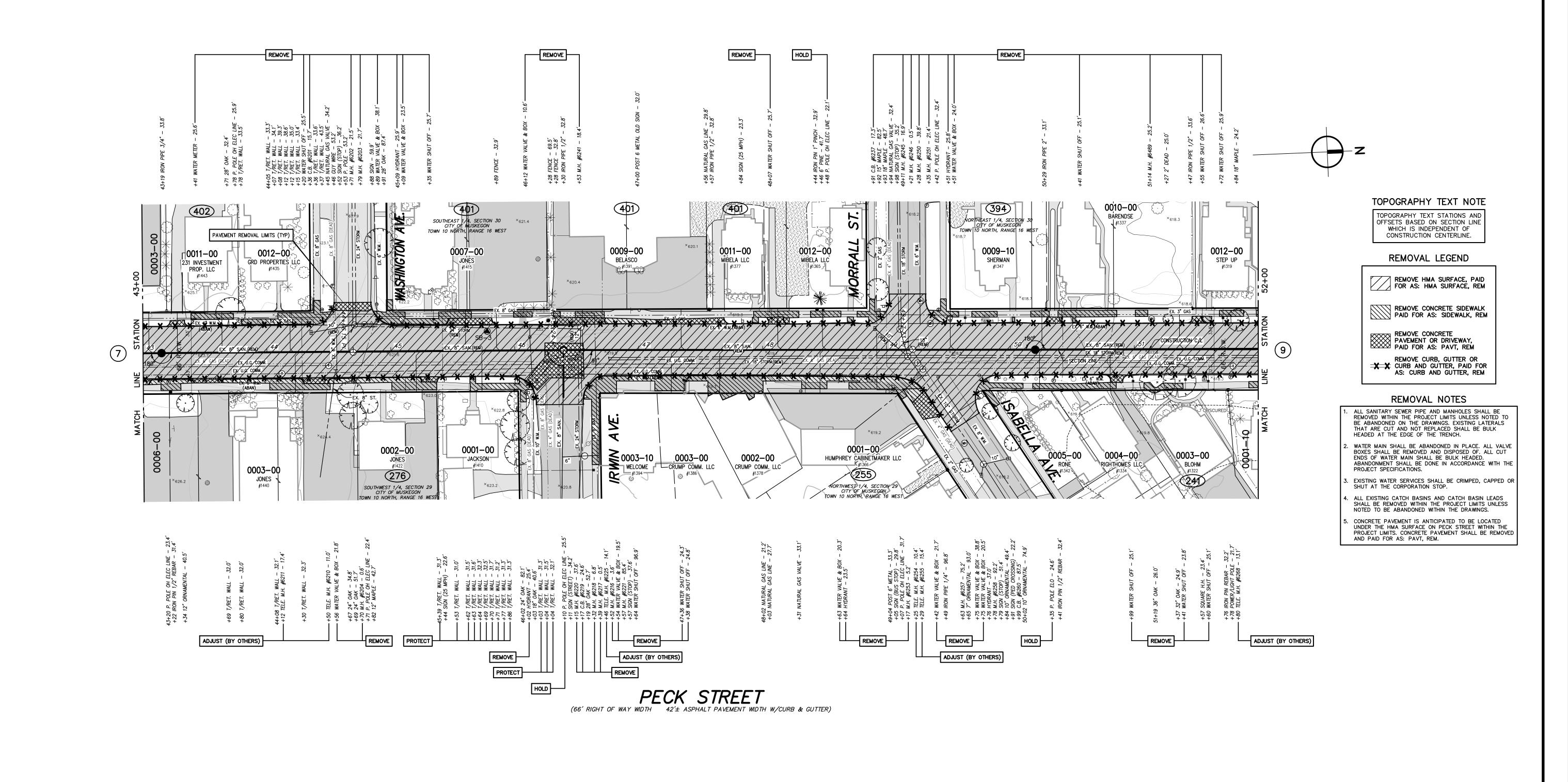
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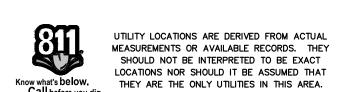
CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN

STREET IMPROVEMENTS

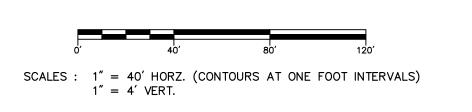
2190730
SHEET NO.
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REMOVAL PLAN





PROJECT DATUM INFORMATION COORDINATE SYSTEM: STATE PLANE GRID
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ELLIPSOID: GRS 80
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UNITS: INTERNATIONAL FEET PROJECT COMBINED SCALE FACTOR (PCSF) = GROUND DISTANCE = GRID DISTANCE/PCSF



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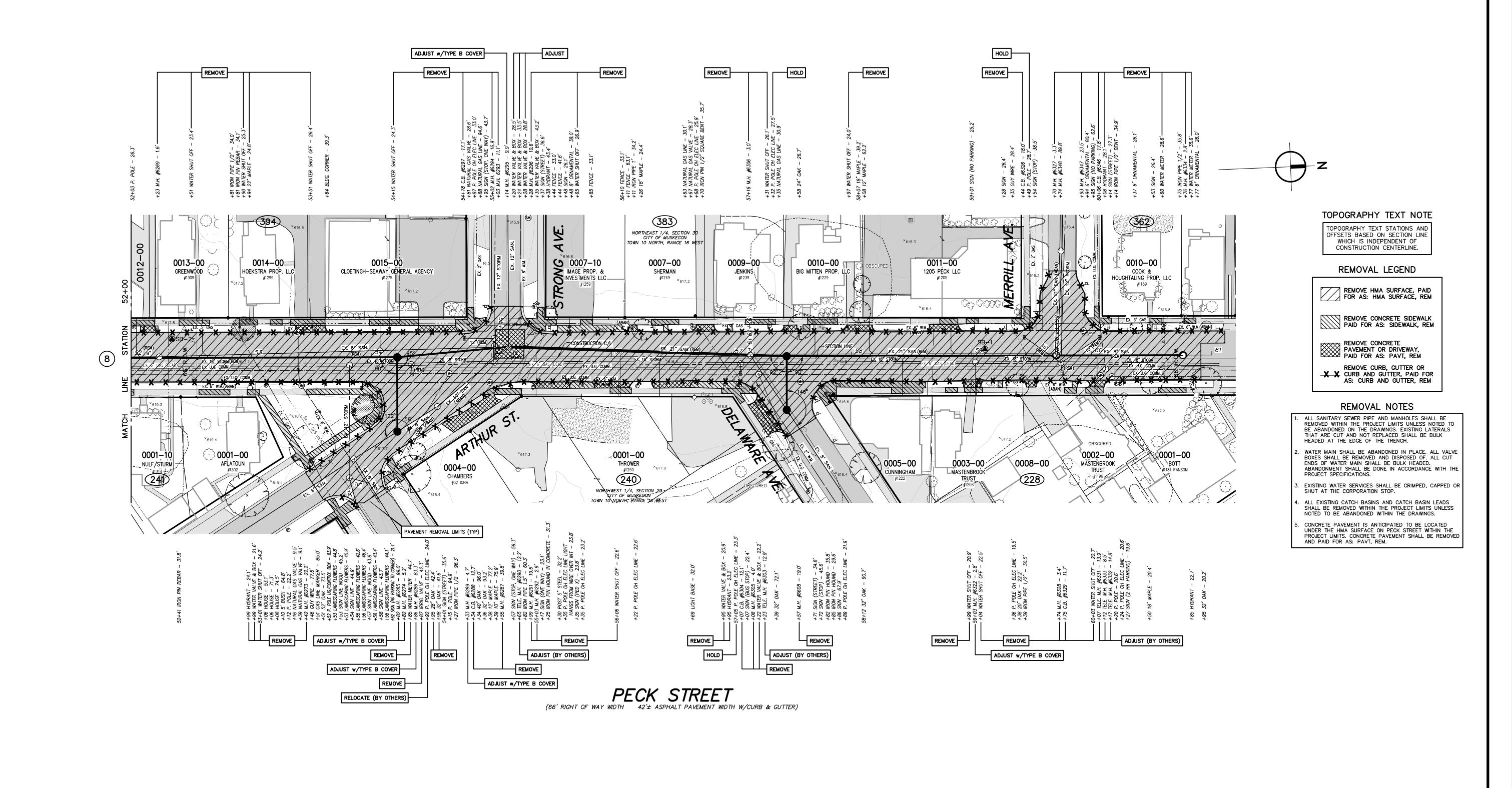
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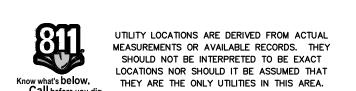
CITY OF MUSKEGON MUSKEGON COUNTY, MICHIGAN STREET IMPROVEMENTS

SHEET NO. REMOVAL PLAN

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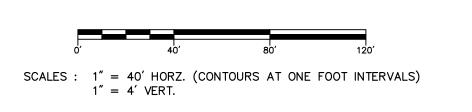




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CITY OF MUSKEGON MUSKEGON COUNTY, MICHIGAN

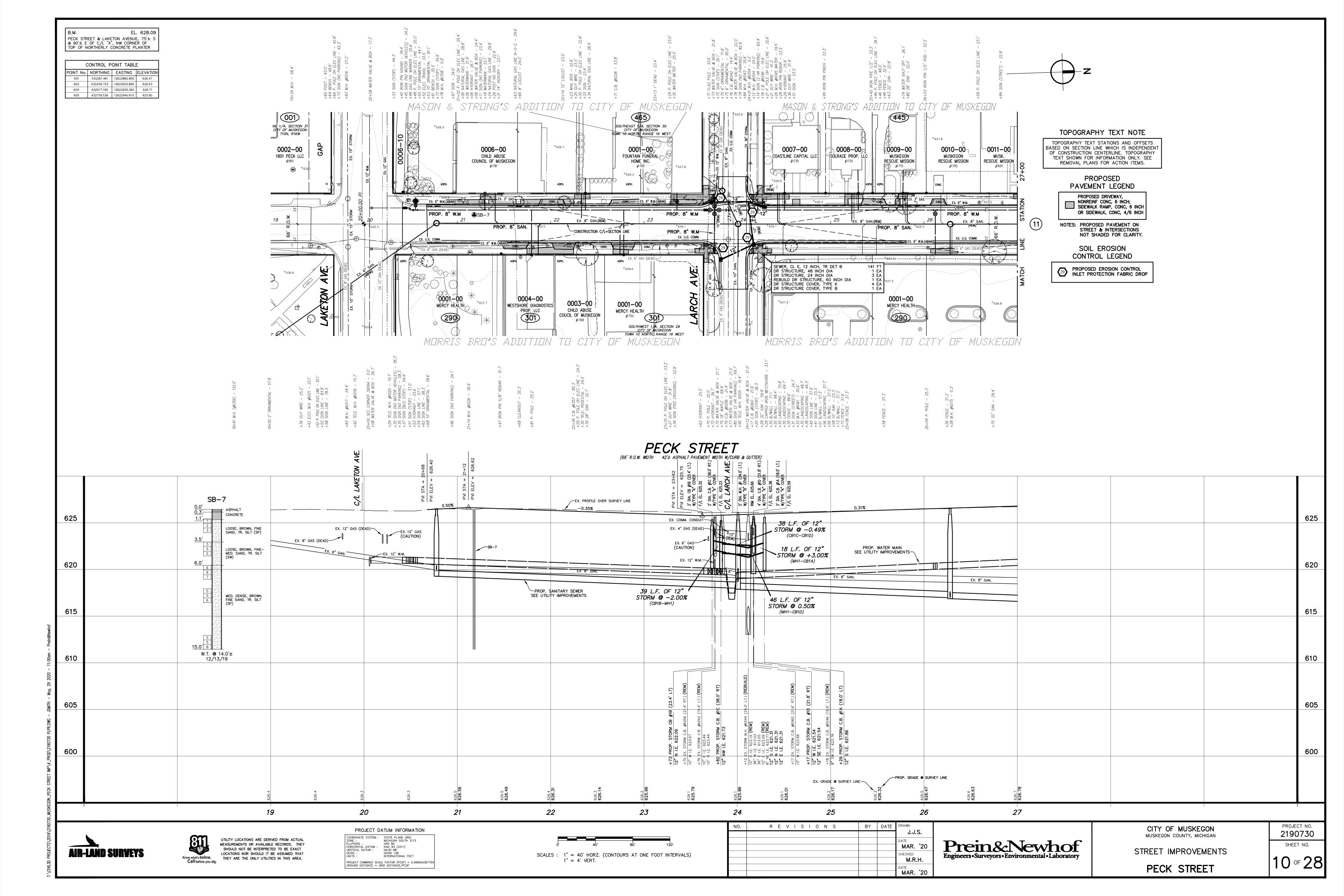
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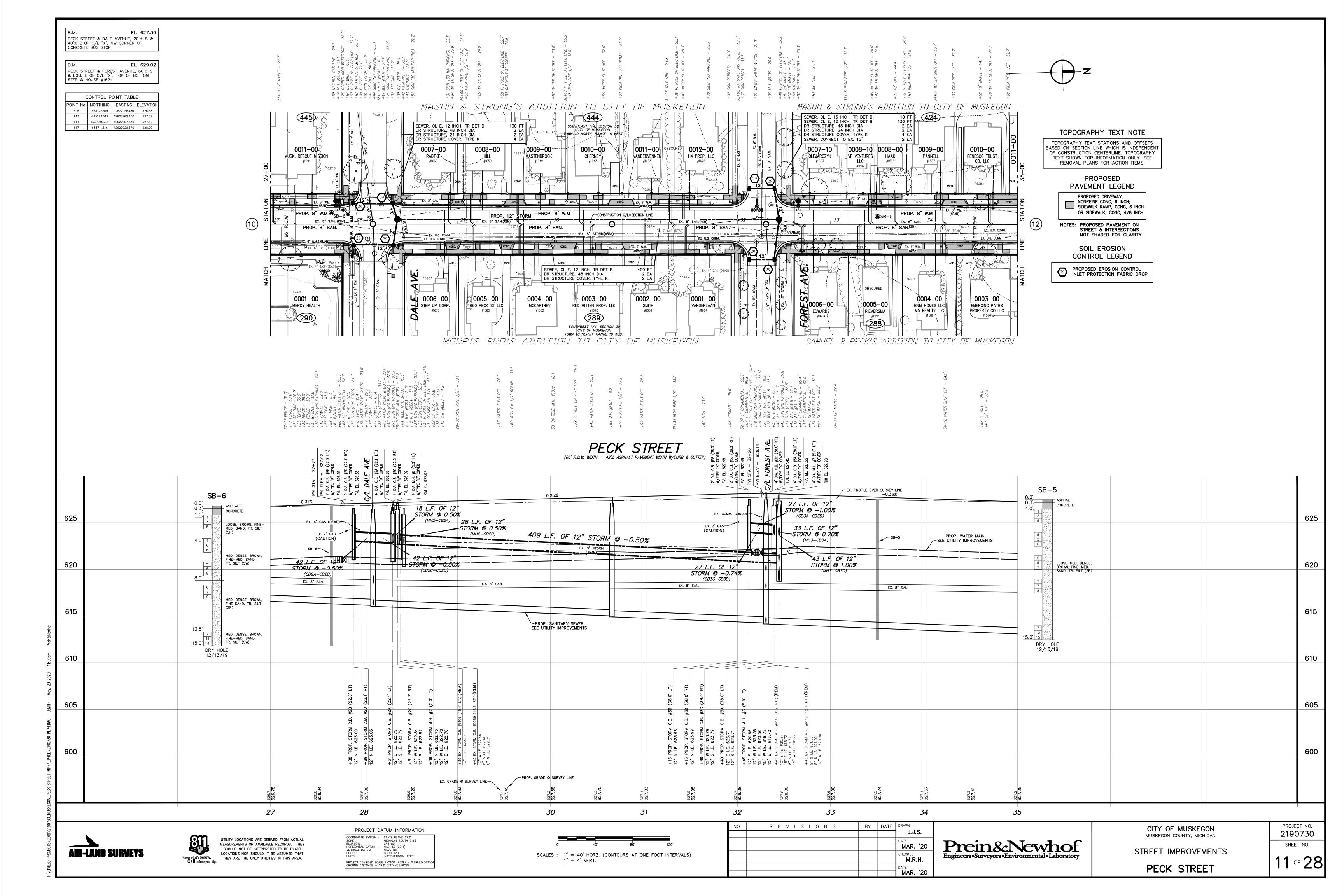
SHEET NO. 9 OF 28

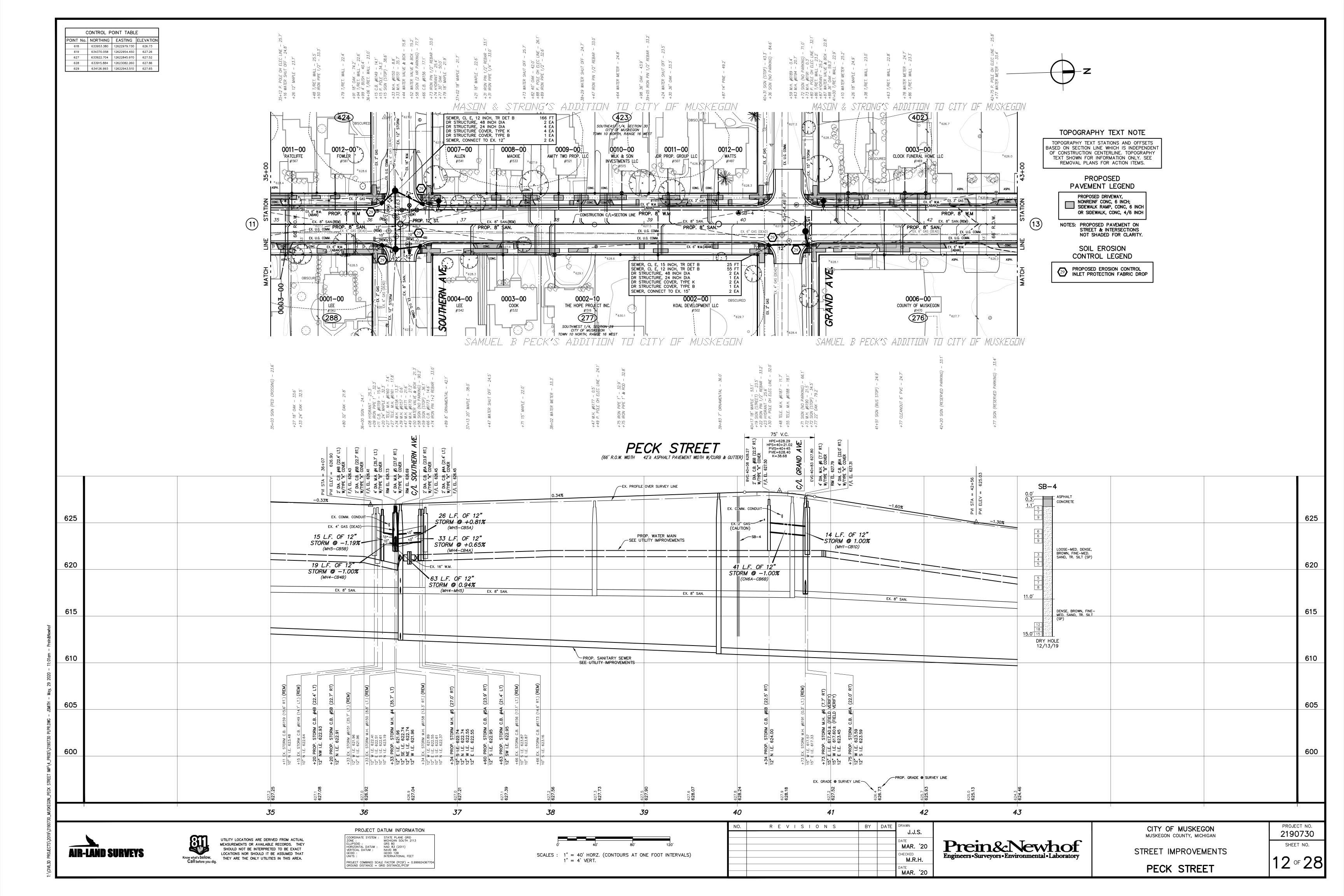
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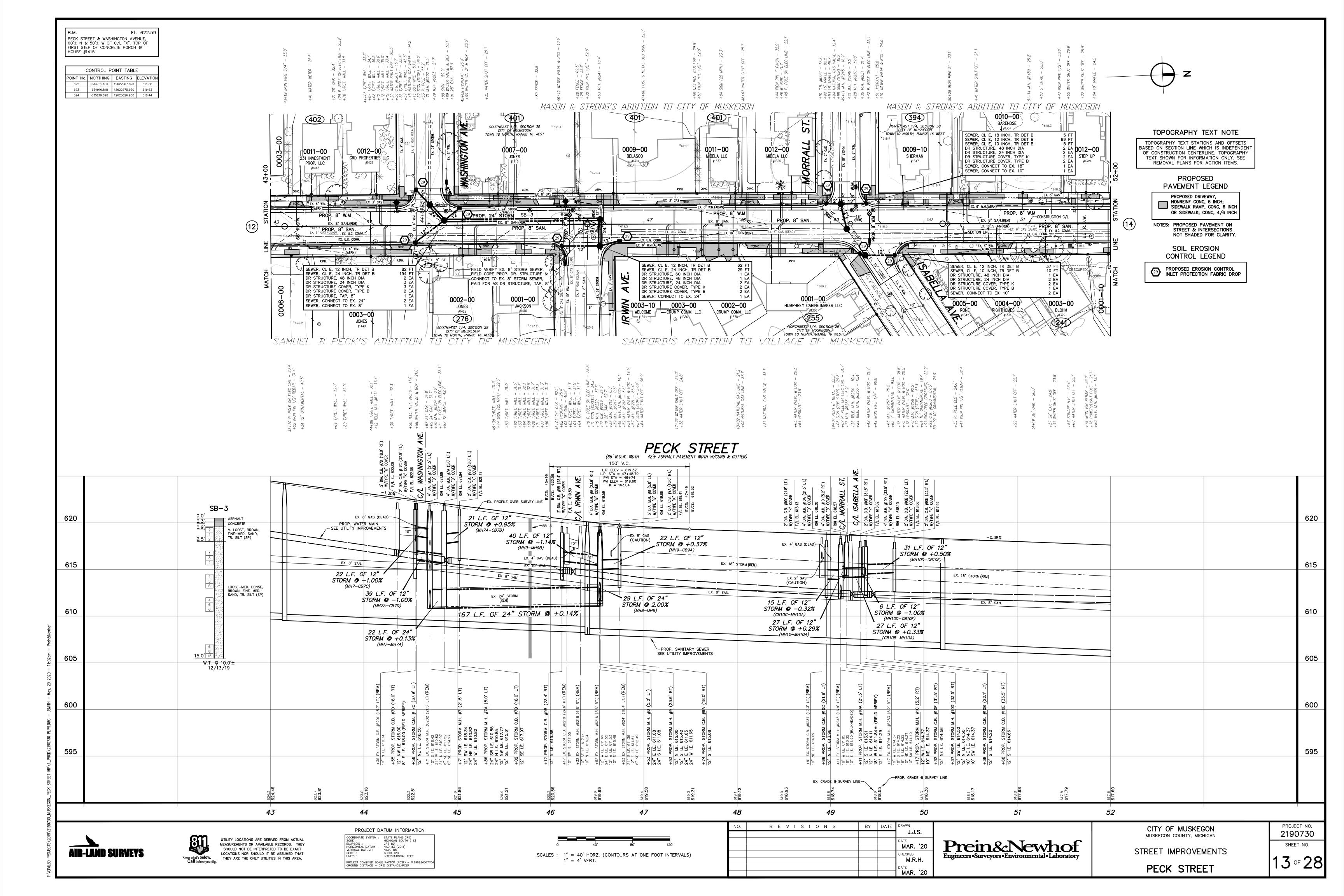
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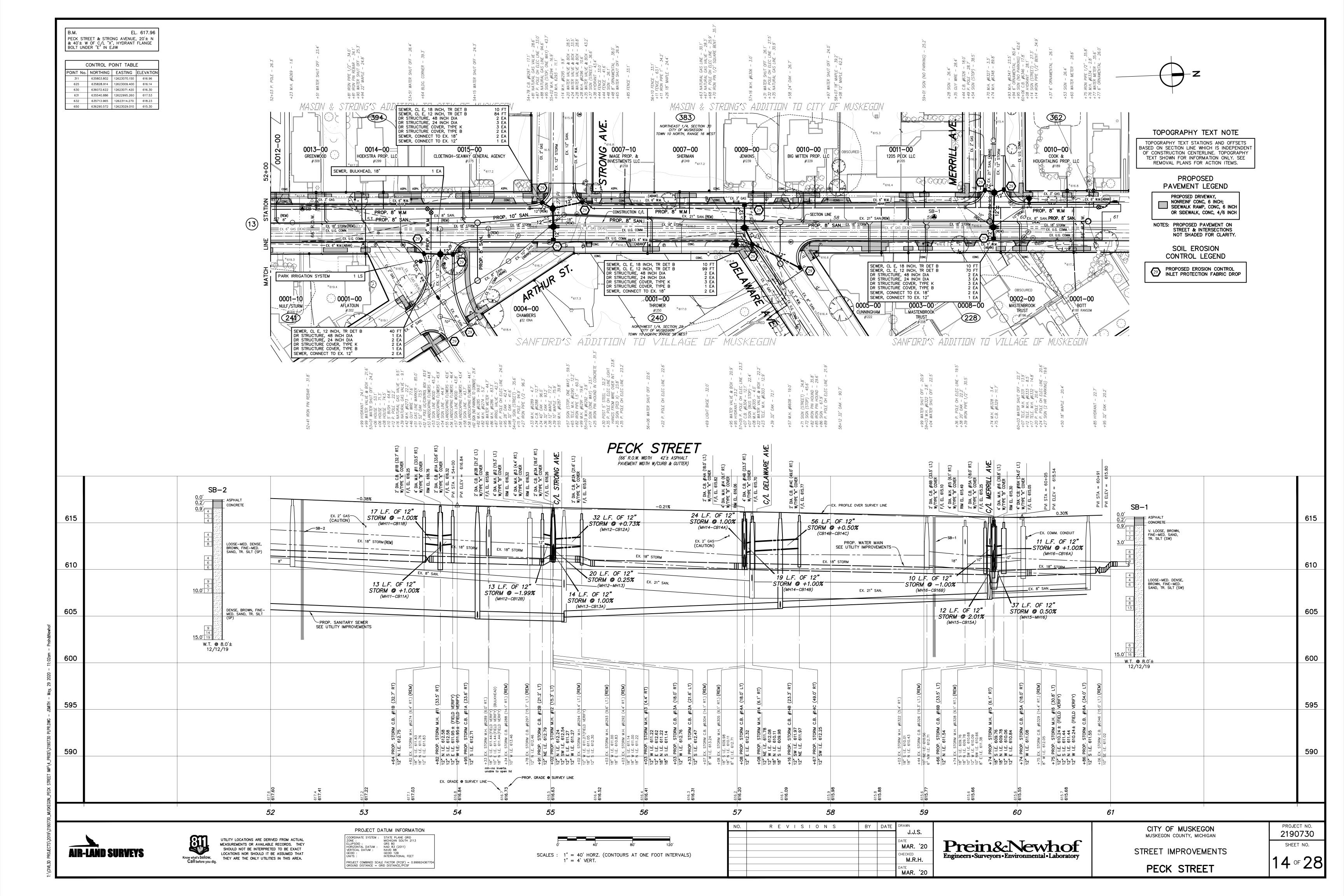
REMOVAL PLAN 9 of 2

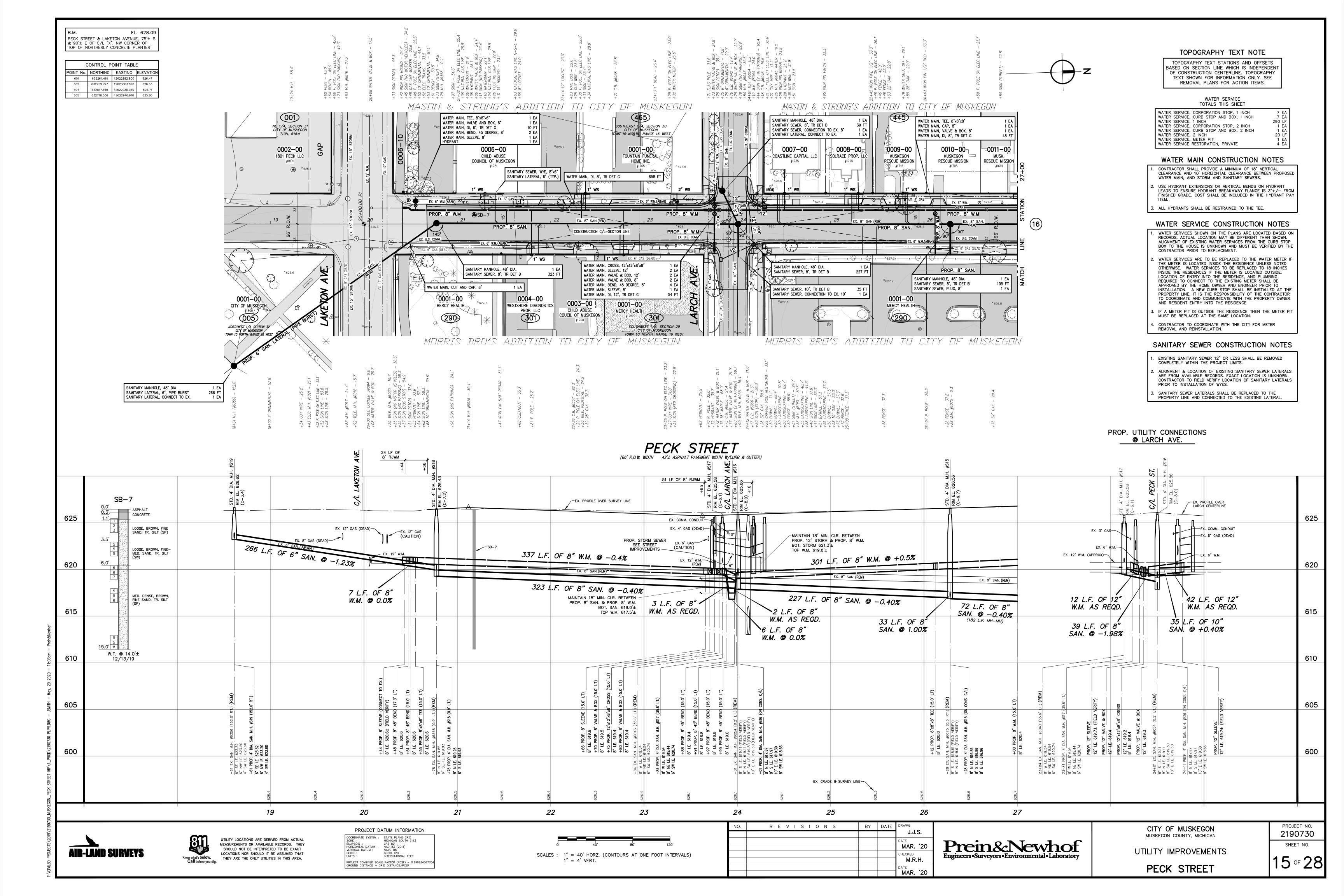


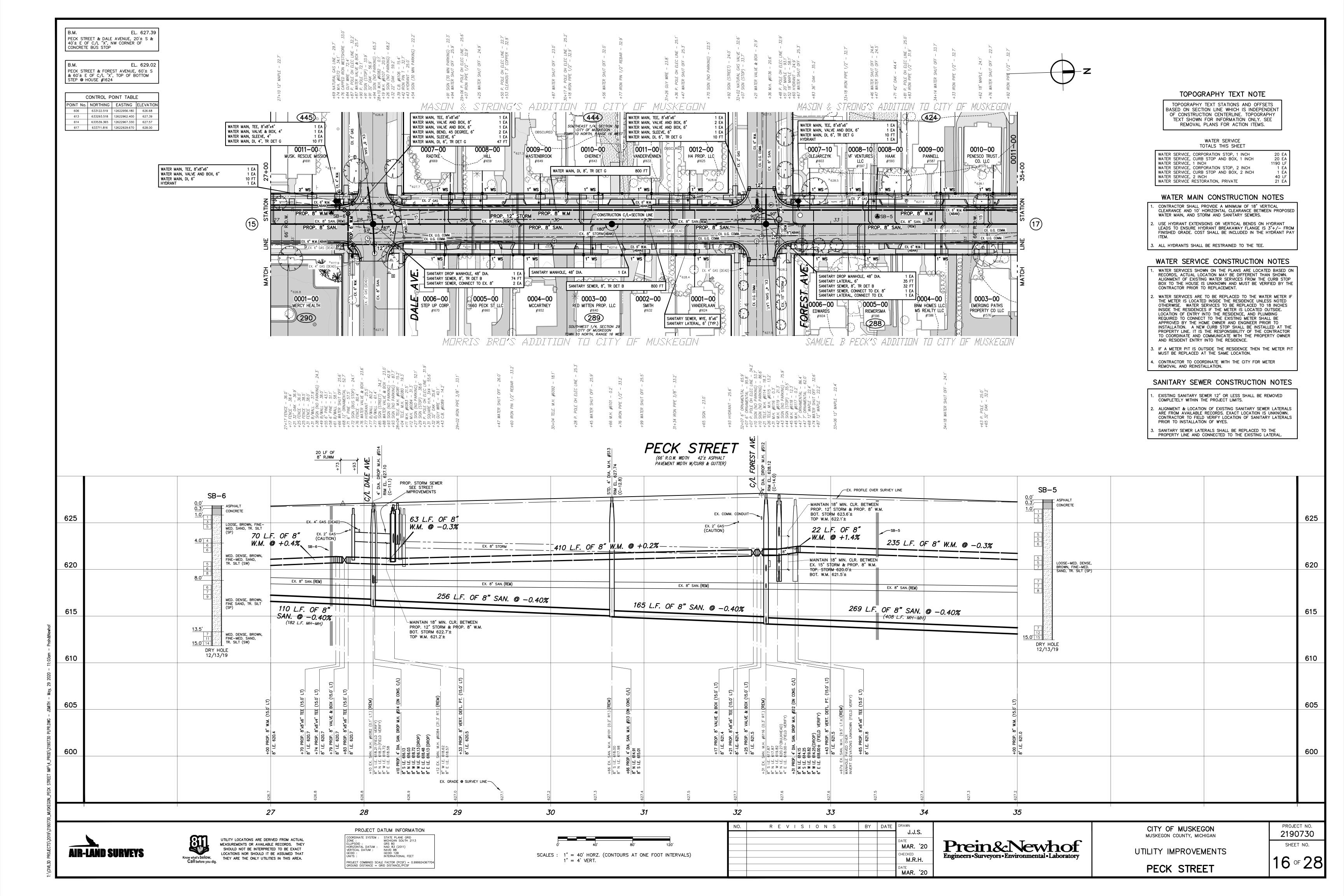


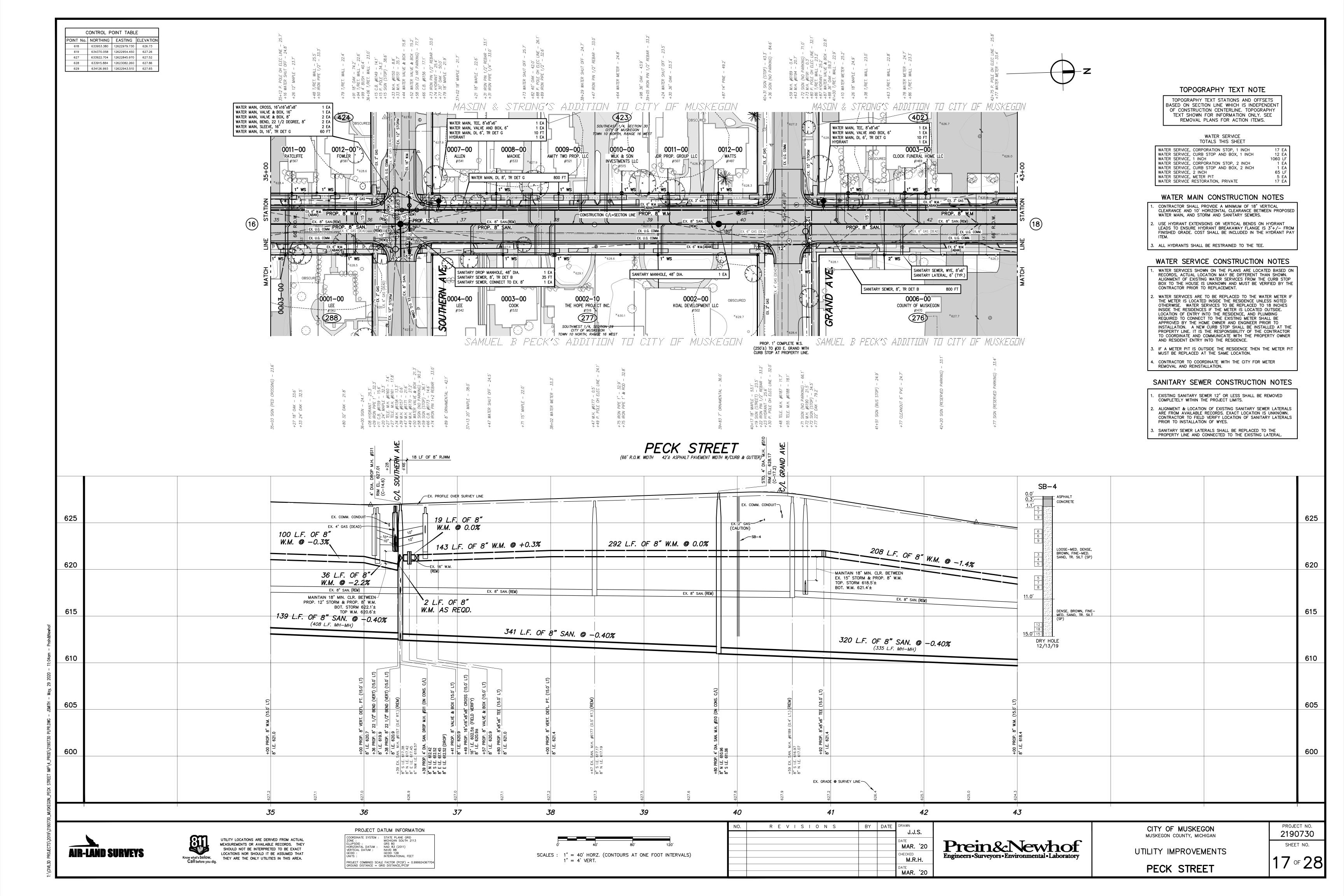


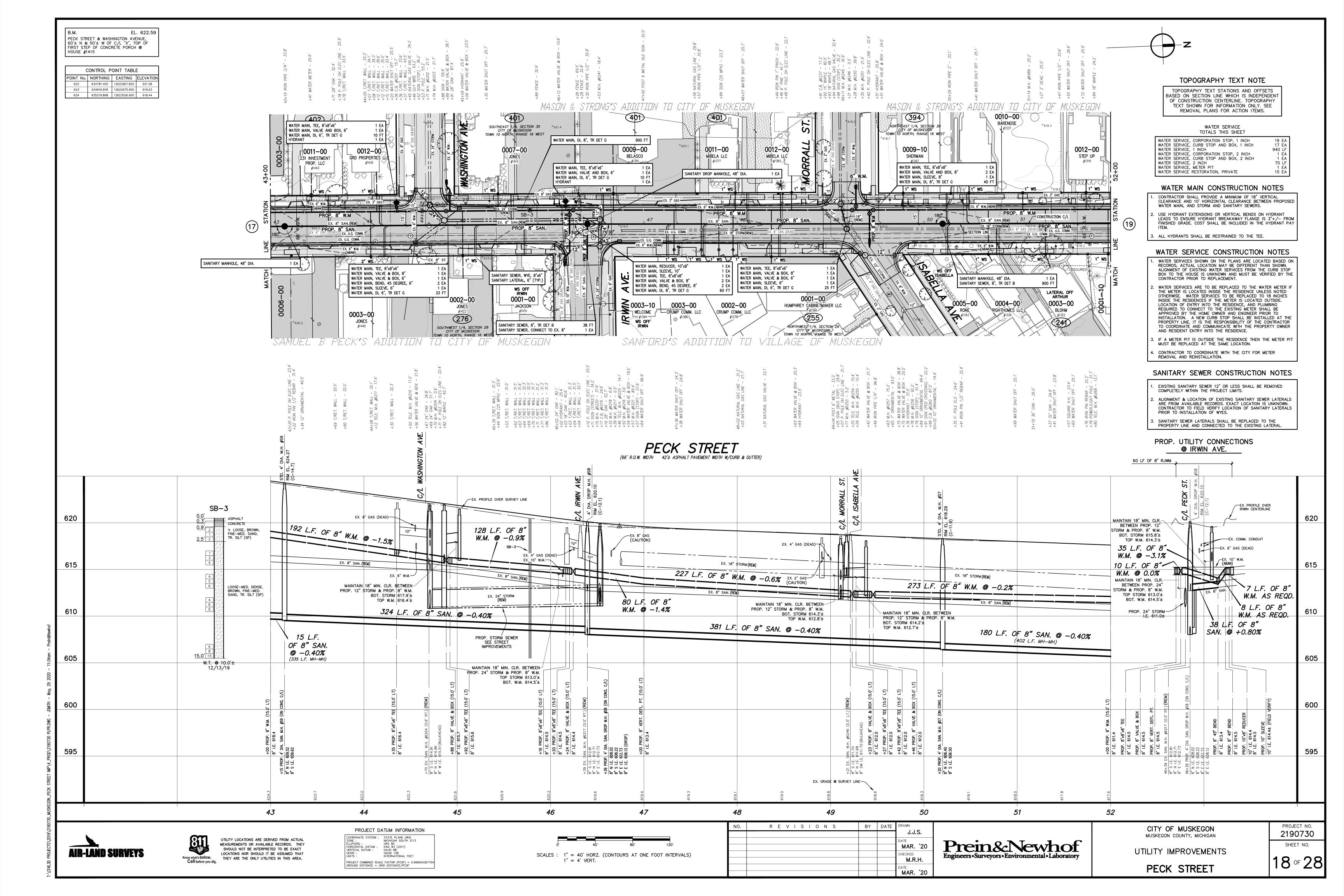


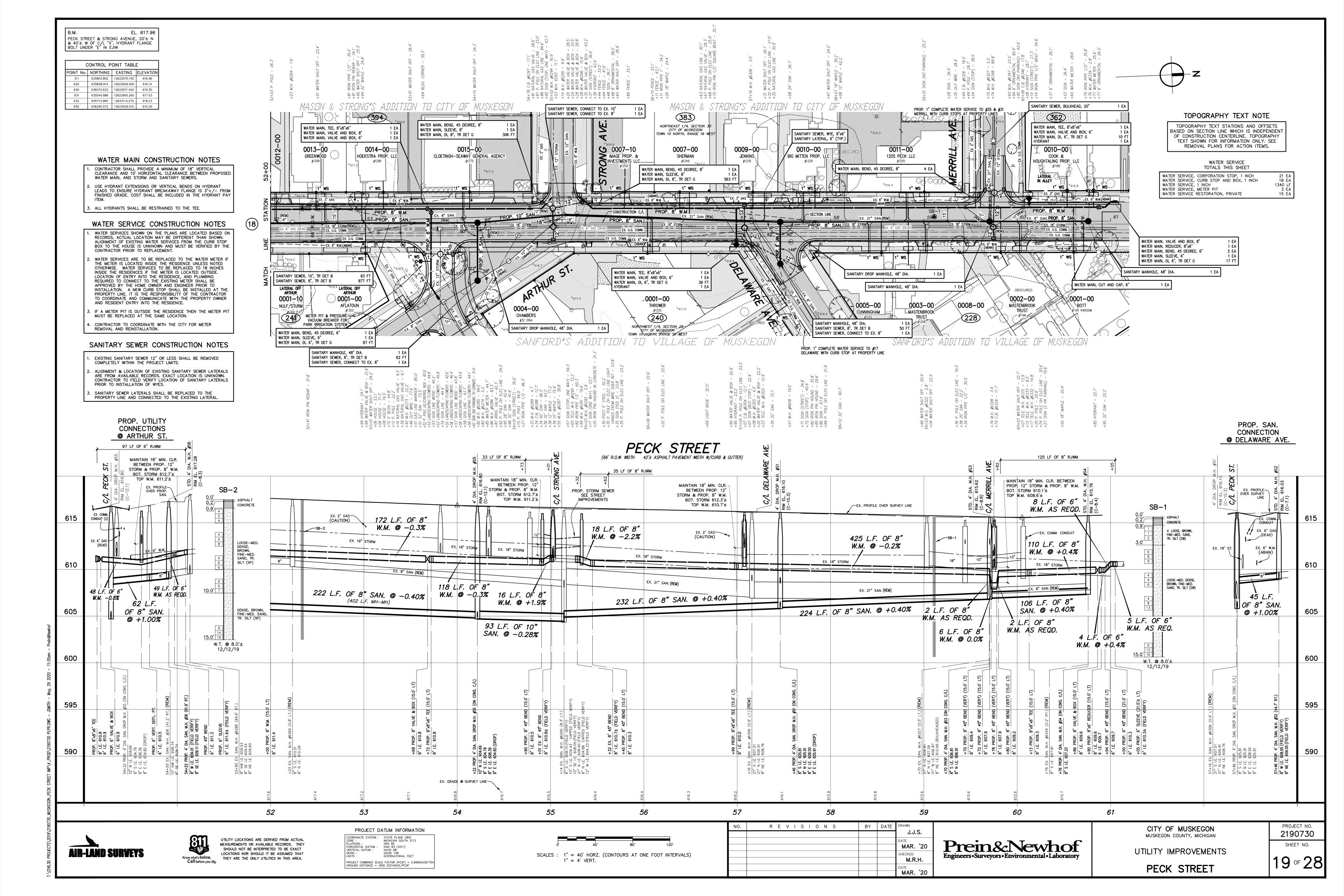


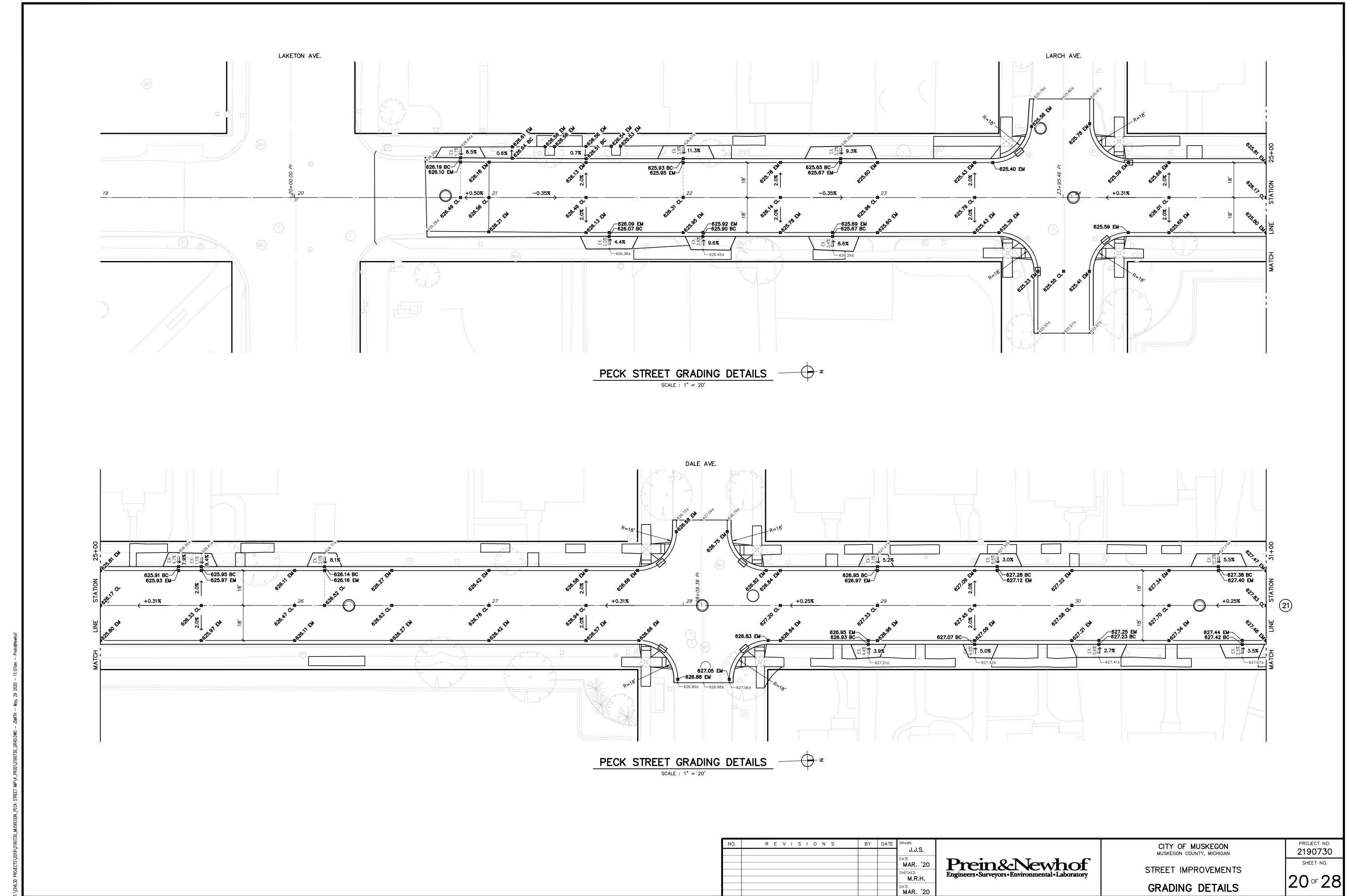


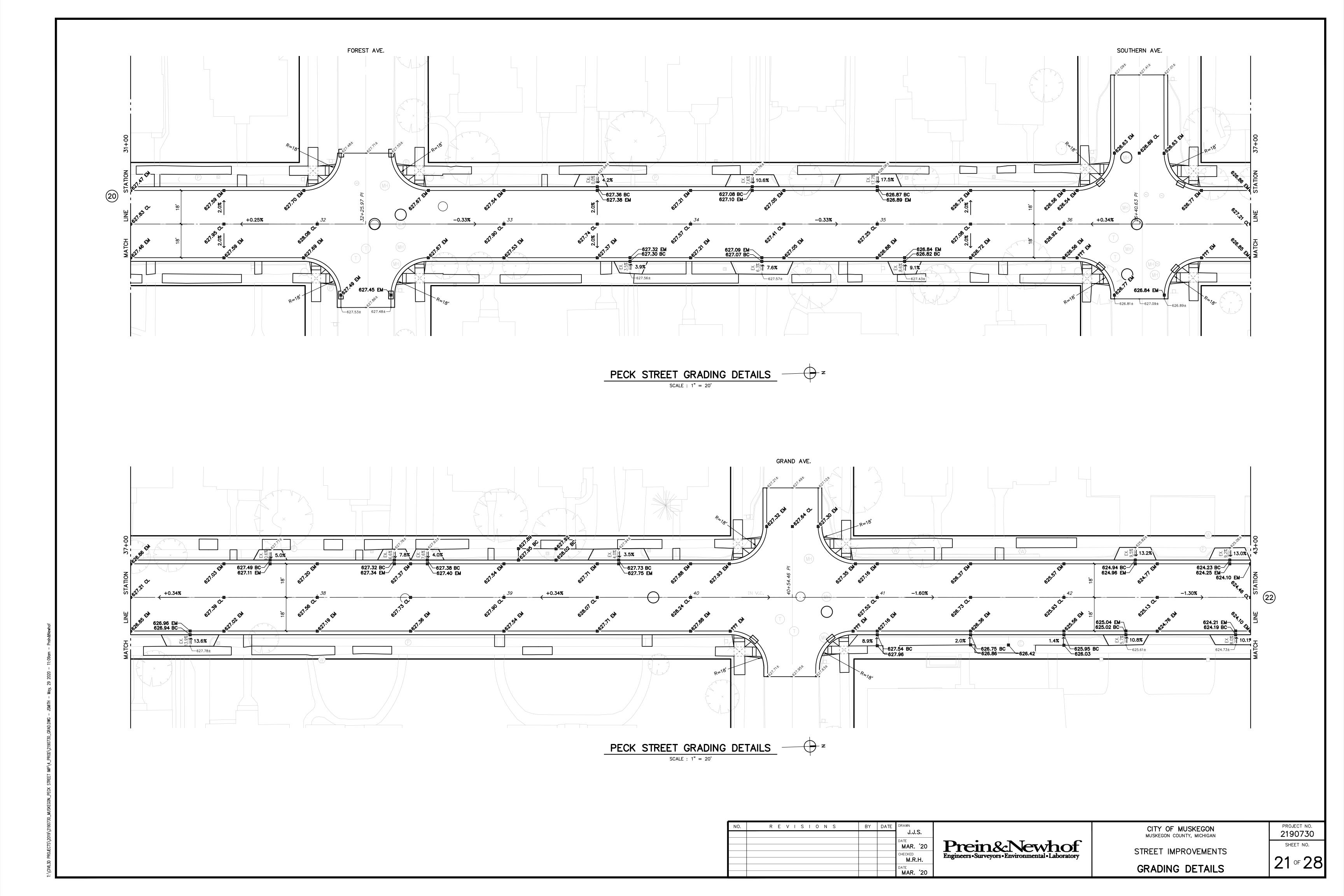


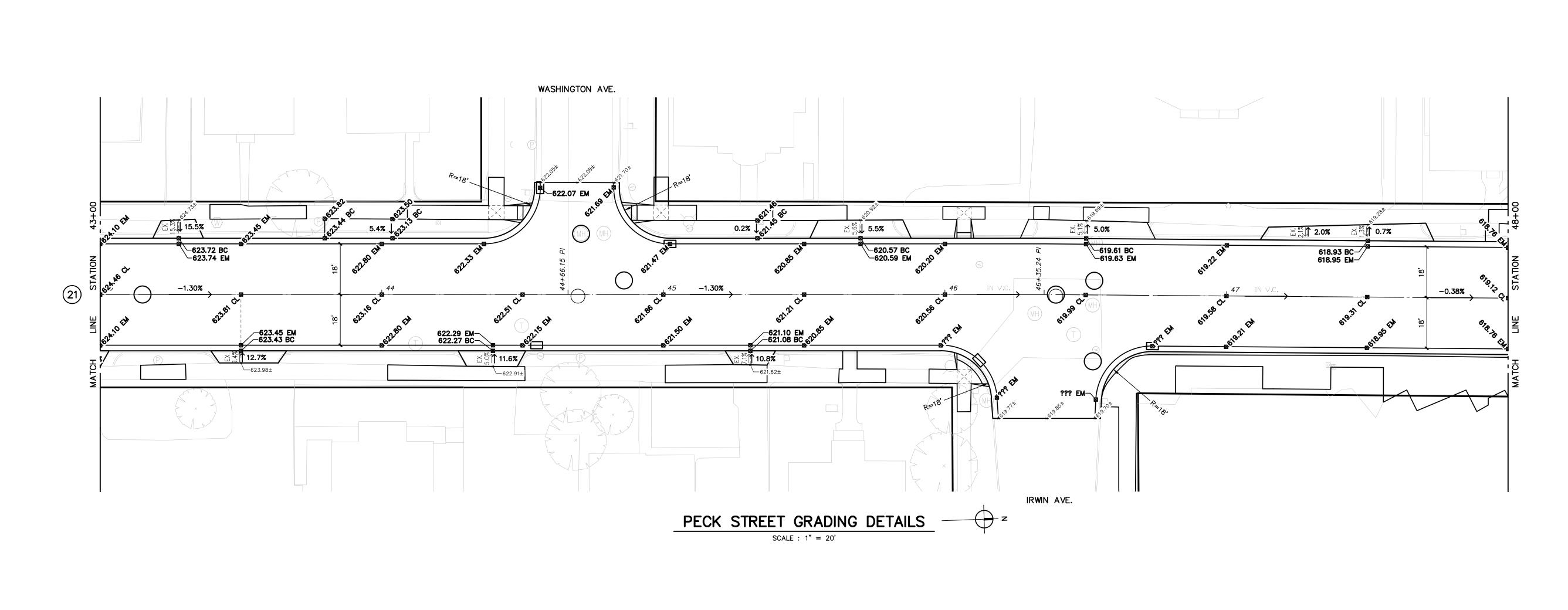


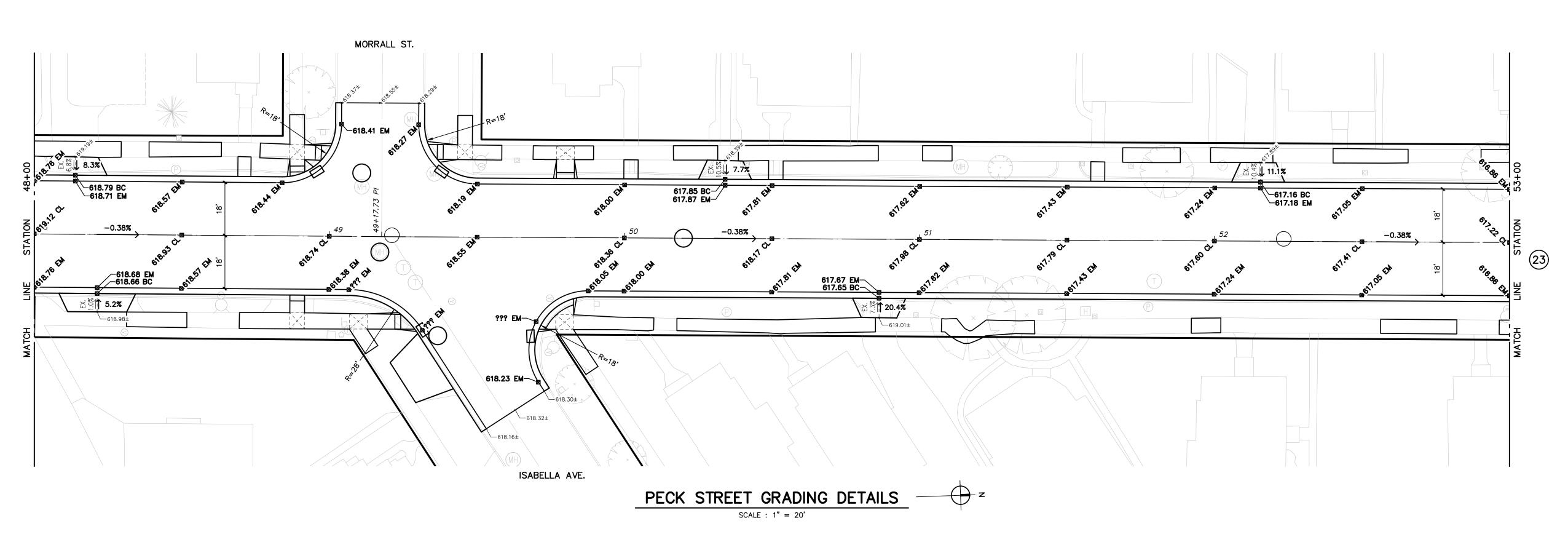












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CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN

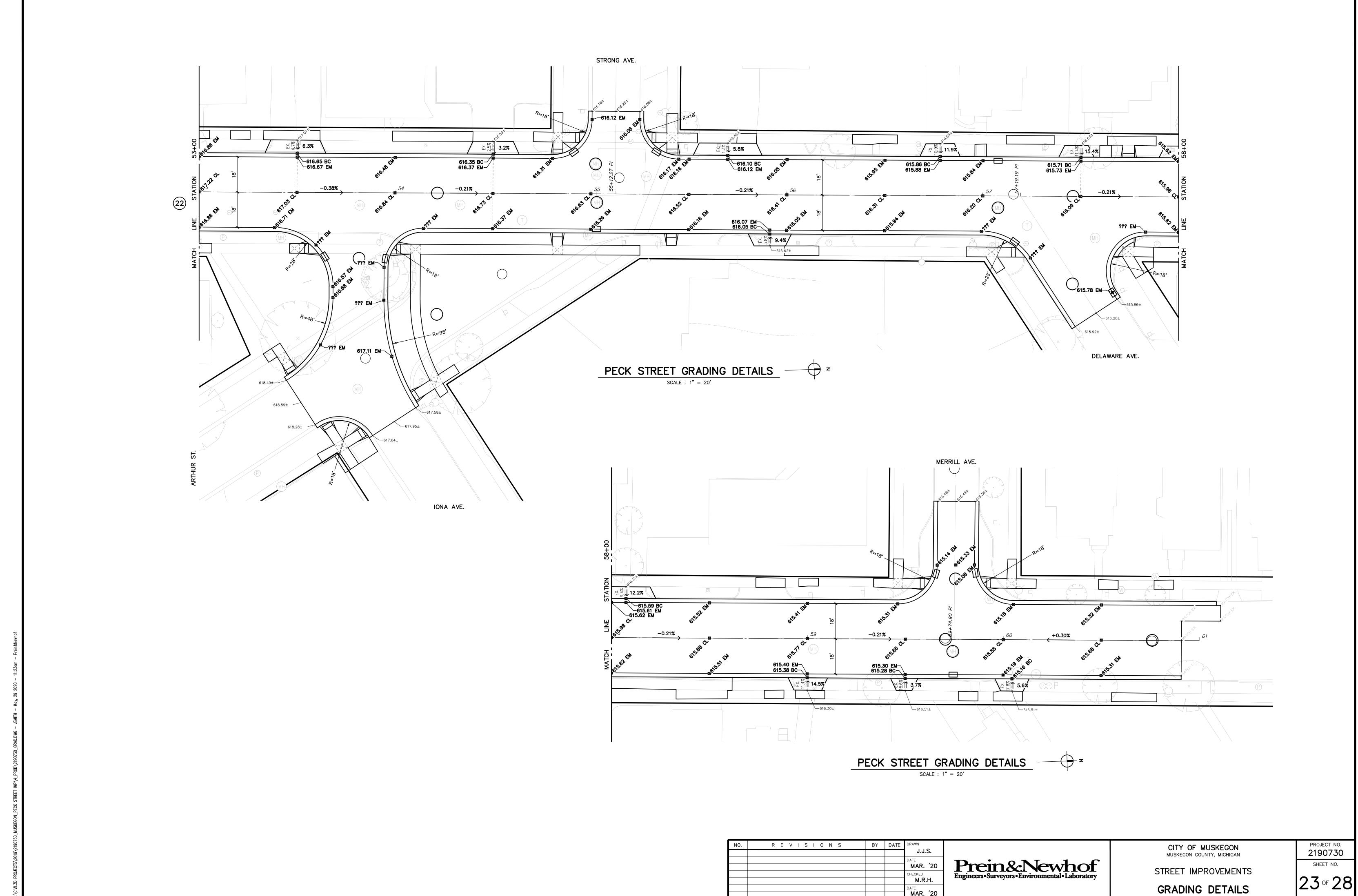
STREET IMPROVEMENTS

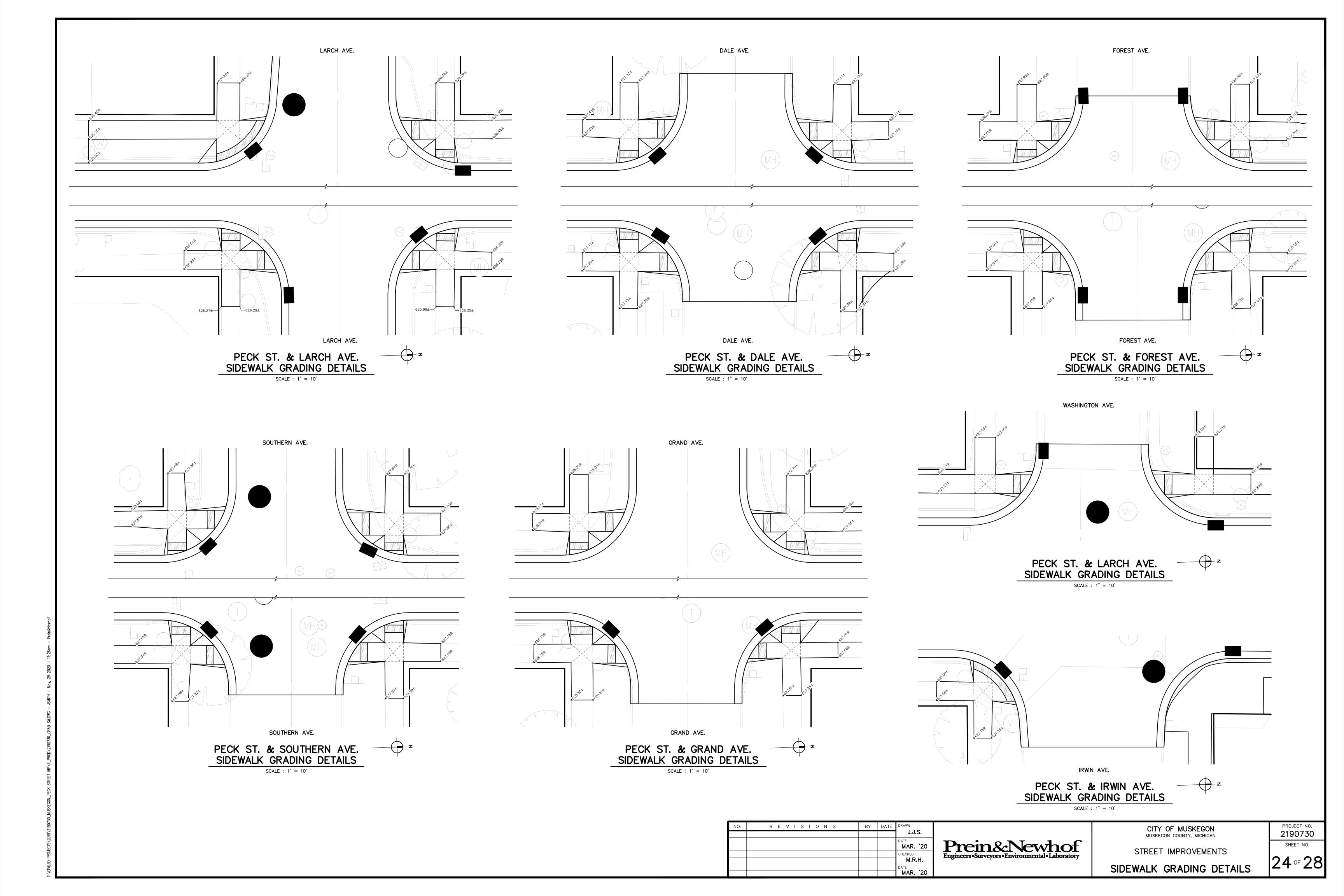
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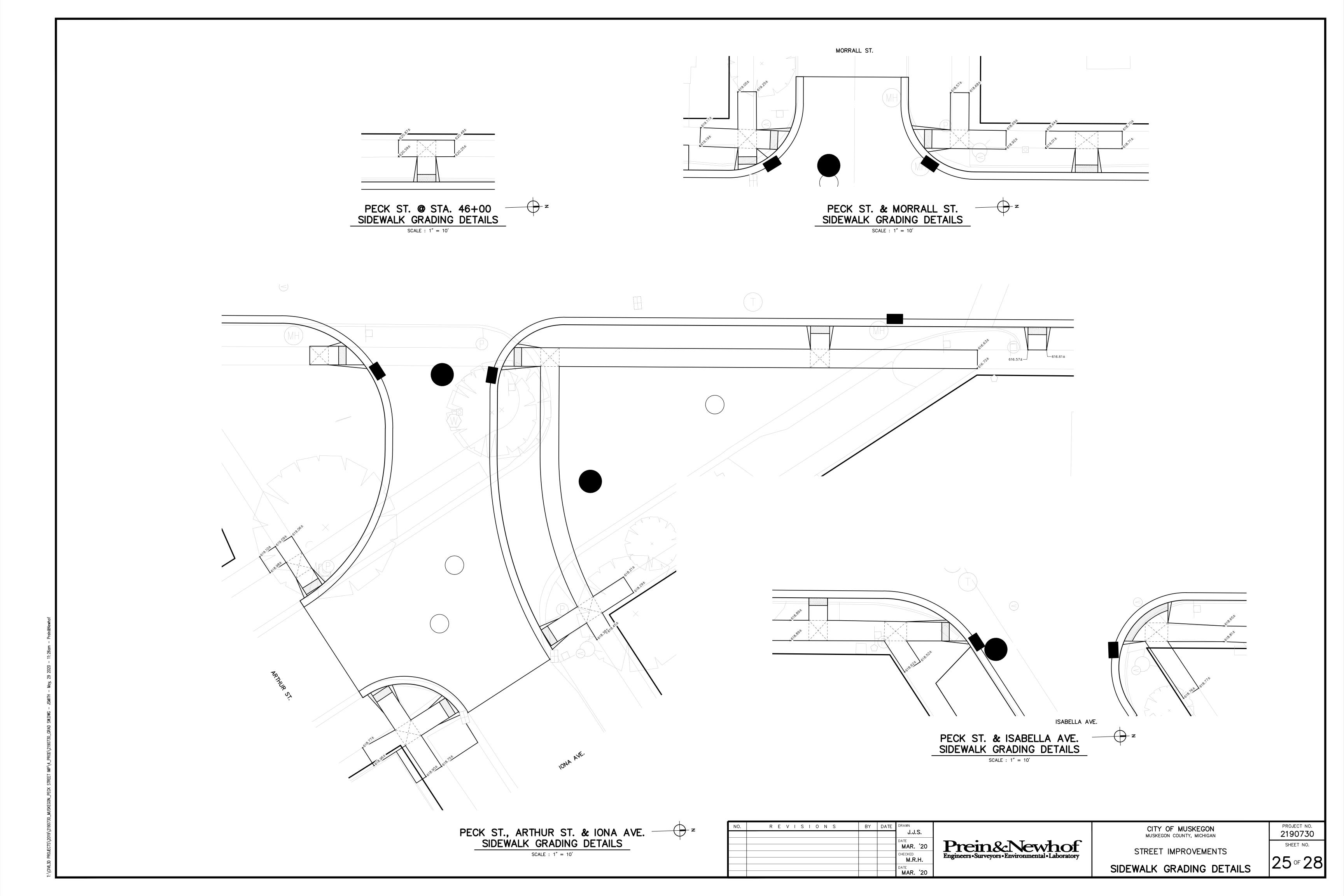
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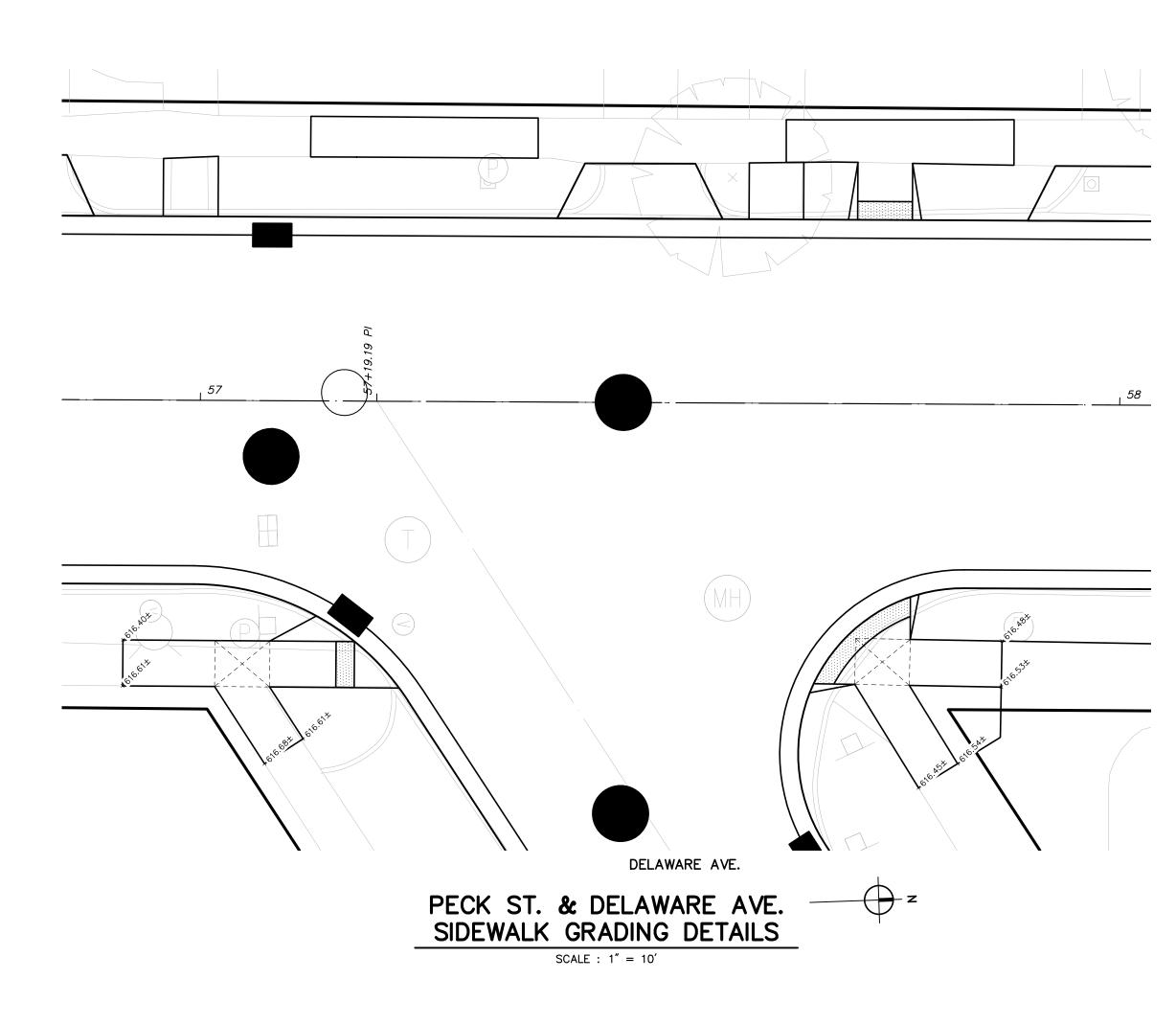
PROJECT NO. **2190730** 

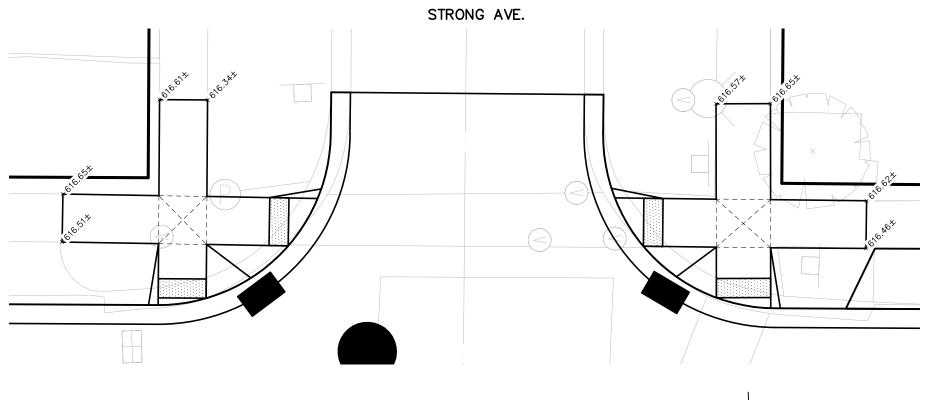
SHEET NO.







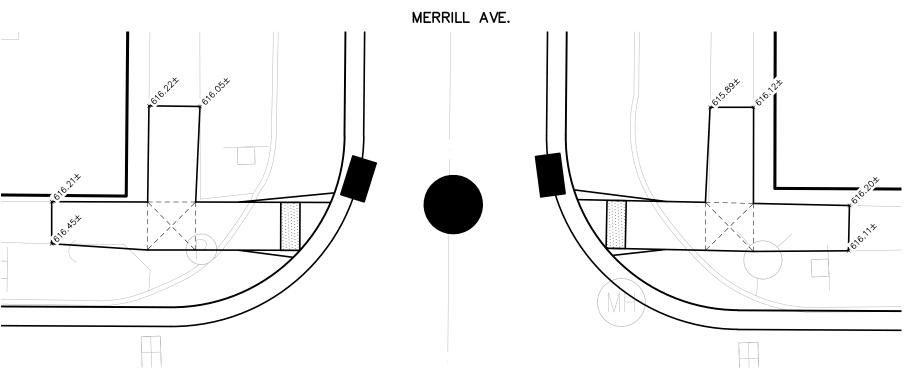




PECK ST. & STRONG AVE.

SIDEWALK GRADING DETAILS

SCALE: 1" = 10'



PECK ST. & MERRILL AVE.

SIDEWALK GRADING DETAILS

SCALE: 1" = 10'

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J.J.S.												
MAR. '20												
MAR. 20												
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M.R.H.												
DATE												

Prein&Newhof
Engineers - Surveyors - Environmental - Laboratory

CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN
STREET IMPROVEMENTS

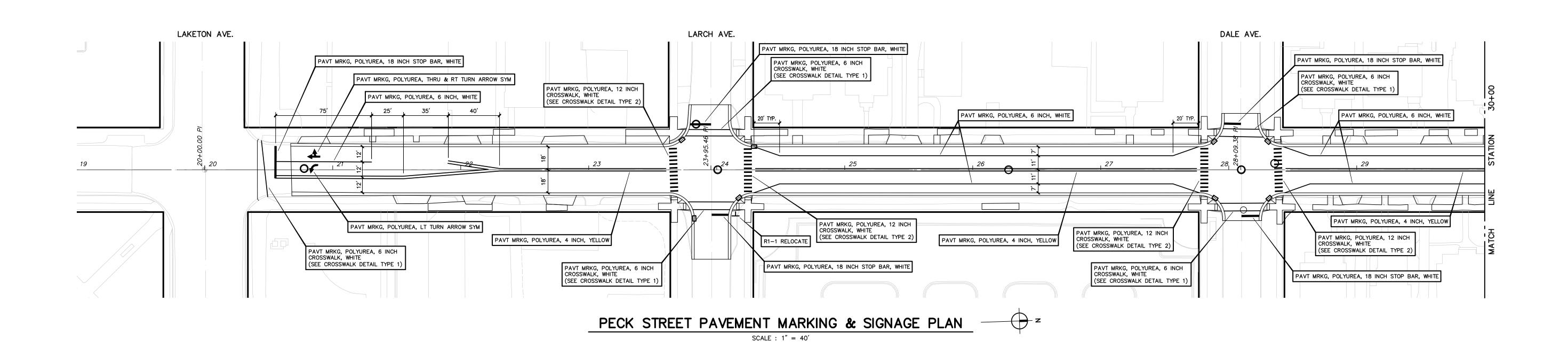
PROJECT NO. 2190730 SHEET NO. 26 OF 28

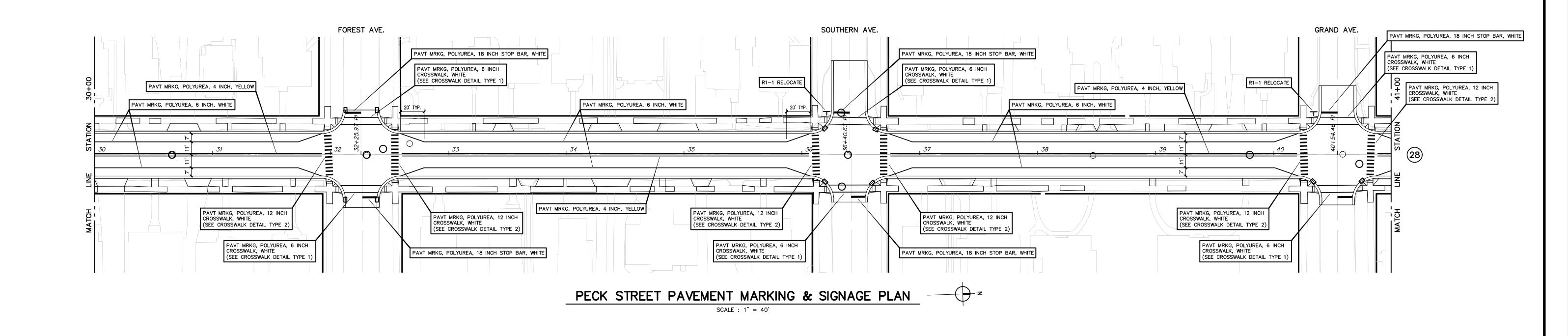
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SIREET IMPROVEMENTS

SIDEWALK GRADING DETAILS

26





NO. REVISIONS BY DATE DRAWN
J.J.S.

DATE
MAR. '20
CHECKED
M.R.H.

DATE
M.R.H.

Prein&Newhof
Engineers - Surveyors - Environmental - Laboratory

CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN

STREET IMPROVEMENTS

STREET IMPROVEMENTS

PAVEMENT MARKING & SIGNAGE PLAN

SHEET NO.

27 of 28

PROJECT NO.

2190730

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