

City of Muskegon 2025 Road & Utility Construction Project Summary

Project Name: Amity Bridge Removal

Project Type: Reconstruction

Contractor: Anlaan Corporation

City Neighborhood(s): Angell

Project Summary: The bridge has been deteriorating for a number of years and is not passing inspections. The bridge will be removed, the gully will be filled in and the roadway restored.

Changes to Expect: Since the bridge will be removed, the road will be closed to all traffic. Sidewalks will be replaced and roadway restored.

Timeline/Timeframe: To be determined

Lane, Road or Intersection Shutdown: Amity to Fork and the intersection of Myrtle/Cedar will be closed. Residences on the east side of the bridge will have to park along Fork or enter from the east.

Project Contact Information:

Joel Brookens
Assistant City Engineer
Joel.brookens@shorelinecity.com
(231) 724-6900

FAQs:

How will my trash get picked up? The contractor will work with the City and Republic Waste to make sure your trash is picked up. If your trash can needs to be moved, the Contractor will be responsible for moving it and returning it. It is advised to write your address on your can.

Why do all the trees in the streets need to be removed? The sewers and water mains that are being replaced are far underground, in some cases as deep as 12 feet down. In order to safely dig down that far, the trees need to be removed. Replacement trees will be planted the year after the project.

Why does the contractor need to get inside my house? A small portion of your water service pipe (the pipe that brings water into your home) is made of lead. The City is working to replace all water service pipes that have that small piece of lead, and the time has come for your service line to be replaced. The state requires the pipe be replaced all the way to your water meter, which is probably inside your home. The contractor will need to get to your water meter and work in that area as part of the replacement. In the meantime, your water is safe to drink. If you have any questions about this or about lead in your water, reach out to the project contacts listed above.

UTILITIES

ELECTRIC
JOEL BROWN
CONSUMERS ENERGY
700 E STERNBERG ROAD
NORTON SHORES, MI 49441
(231) 332-2682

TELEPHONE
MIKE THOMPSON
FRONTIER COMMUNICATIONS
860 TERRACE STREET
MUSKEGON MI 49440

NATURAL GAS
ANTHONY FERRIER
DTE ENERGY
2359 OLTHOFF DRIVE
MUSKEGON MI 49444

CABLE
COMCAST
JASON BROWN
JASON_BROWN@COMCAST.COM
OFFICE 734-359-1942

WATER & SEWER
CITY OF MUSKEGON - DPW
1350 E KEATING AVENUE
MUSKEGON MI 49442
(231) 724-4100

STANDARD PLANS

R-1-G DRAINAGE STRUCTURES
R-7-F COVER B
R-15-G COVER K
R-28-J SIDEWALK RAMP AND DETECTABLE WARNING DETAILS
R-29-I DRIVEWAY OPENINGS & APPROACHES AND CONCRETE SIDEWALKS
R-30-G CONCRETE CURB & GUTTER
R-83-C UTILITY TRENCHES
R-96-E SOIL EROSION & SEDIMENTATION CONTROL MEASURES

TRAFFIC/SAFETY STANDARD PLANS

*WZD-100-A GROUND DRIVEN SIGN SUPPORTS FOR TEMPORARY SIGNS
*WZD-125-E TEMPORARY TRAFFIC CONTROL DEVICES
* INDICATES SPECIAL DETAIL INCLUDED IN PROPOSAL

CITY OF MUSKEGON
PLAN AND PROFILE OF PROPOSED
AMITY AVE BRIDGE REMOVAL
IN COOPERATION WITH
MICHIGAN DEPARTMENT OF TRANSPORTATION
AND
FEDERAL HIGHWAY ADMINISTRATION
CONTROL SECTION: 61000
JOB NUMBER: 218168
SN: 7699
MUSKEGON, SECTION 20, T10N, R16W



SHEET INDEX

SHEET	DESCRIPTION
1.	TITLE SHEET
2.	CROSS SECTION & DETAILS
3.	EXISTING AND REMOVALS
4.	PROPOSED
5.	TRAFFIC CONTROL PLAN



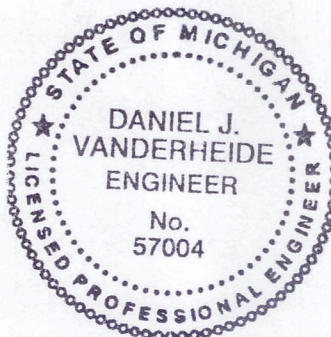
MUSKEGON

AMITY AVE. TRAFFIC DATA

2023 PRESENT ADT	250
2023 COMMERCIAL	1 %
2043 FUTURE ADT	400
2043 COMMERCIAL	2%
DESIGN SPEED	30 MPH
POSTED SPEED	NOT POSTED

CONSTRUCTION INCLUDES 0.08 MILES OF HMA PAVEMENT RECONSTRUCTION; INCLUDING BRIDGE REMOVAL, HMA REMOVAL, HMA PAVEMENT, STORM SEWER, CONCRETE SIDEWALKS, AND CURB & GUTTER ON AMITY AVE IN THE CITY OF MUSKEGON, MUSKEGON COUNTY.

PREPARED UNDER THE SUPERVISION OF:



DAN VANDERHEIDE
9/27/24
DAN VANDERHEIDE P.E.
CITY ENGINEER

CITY OF MUSKEGON
ENGINEERING DEPARTMENT
1350 E KEATING AVE
MUSKEGON MI 49442

57004
REGISTRATION NUMBER

NOTE:

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THESE IMPROVEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2018 AASHTO: A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS.

GENERAL NOTES:

- EXISTING CONDITIONS INCLUDING ELEVATIONS ARE SUBJECT TO CHANGE DUE TO CONSTRUCTION OUTSIDE THE CONTROL OF THE CITY OF MUSKEGON. CONTRACTOR IS TO VERIFY EXISTING CONDITIONS OF THE SITE, MATCH ALL EXISTING MEETS AND COORDINATE WORK ACTIVITIES WITH NEIGHBORING CONTRACTORS.
- UPON REQUEST AND APPROVAL, THE CONTRACTOR MAY OBTAIN A WATER SUPPLY FROM THE CITY OF MUSKEGON FIRE HYDRANTS AT NO COST, PROVIDED THAT THEY FOLLOW THE CONDITIONS OF THE CITY WATER DEPARTMENT.
- FOR PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL CALL MISS DIG, 1-800-482-7171, A MINIMUM OF 3 WORKING DAYS EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO EXCAVATING IN THE VICINITY OF ALL UTILITY LINES. ALL MISS DIG PARTICIPATING MEMBERS WILL BE NOTIFIED, THIS DOES NOT RELIEVE THE CONTRACTOR THE RESPONSIBILITY OF NOTIFYING OWNERS WHO MAY NOT BE PART OF THE MISS DIG ALERT SYSTEM.
- PUBLIC UTILITIES OF ALL TYPES HAVE BEEN SHOWN ON THE PLAN USING AVAILABLE INFORMATION, BUT ARE NOT GUARANTEED AS ACCURATE OR THAT UTILITIES OTHER THAN THOSE SHOWN ARE NOT PRESENT.
- THE CONTRACTOR SHALL SAW CUT ALL MEETS RELATIVE TO SIDEWALK OR PAVEMENT CONSTRUCTION UNLESS WAIVED BY THE ENGINEER. PAYMENT FOR SAW CUTTING SHALL BE INCLUDED IN THE PAYMENT FOR THE PAY ITEMS PAVT, REM, MODIFIED; CURB AND GUTTER, REM; AND/OR SIDEWALK, REM. NO ADDITIONAL PAYMENT WILL ALLOWED FOR SAW CUTTING.
- THE CONTRACTOR SHALL PREVENT EROSION AND CONTROL SEDIMENTATION ASSOCIATED WITH THE PROJECT. KEEP SEDIMENTATION WITHIN THE RIGHT OF WAY (OR CONSTRUCTION LIMITS) AND OUT OF SURFACE WATERS. CONSTRUCT AND MAINTAIN TEMPORARY EROSION AND SEDIMENTATION CONTROLS, TO INCLUDE INLET PROTECTION, FABRIC DROPS ON ALL INLET STRUCTURES NEW AND EXISTING AND INSTALL TEMPORARY EROSION, SEDIMENTATION CONTROLS AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL REMOVE ON A DAILY BASIS SOIL TRACKED ONTO EXISTING PAVED ROADS. (VACUUM METHODS ARE PREFERRED BUT BROOM SWEEPING IS ACCEPTABLE IF THE MATERIAL IS REMOVED) THE CONTRACTOR SHALL INSPECT ALL SOIL EROSION / SEDIMENTATION CONTROL MEASURES ON A WEEKLY BASIS OR AFTER EACH RAIN FALL EVENT, CLEAN REPAIR, OR REPLACE, AS NECESSARY, TO ENSURE PROPER FUNCTION. ALL SOIL EROSION / SEDIMENTATION CONTROLS SHALL REMAIN UNTIL ALL DISTURBED AREAS ARE STABILIZED. ALL SOIL EROSION / SEDIMENTATION CONTROL, EXCEPT FOR THE EROSION CONTROL, INLET PROTECTION, FABRIC DROP AND SILT FENCE SHALL BE INCLUDED WITH THE PAY ITEM PROJECT CLEAN UP. NO OTHER PAYMENT SHALL BE MADE.
- EXISTING TRAFFIC CONTROL SIGNS THAT NEED TO BE REMOVED TO ALLOW THE CONTRACTOR TO WORK WILL BE REMOVED BY THE CONTRACTOR AND STORED IN A SAFE PLACE TO AVOID DAMAGE. THE CONTRACTOR SHALL THEN REINSTALL THE SIGNS IN THEIR ORIGINAL LOCATION OR AS DIRECTED BY THE ENGINEER. REMOVAL AND REPLACEMENT OF THE SIGNS WILL BE INCLUDED IN THE ITEM OF MINOR TRAFFIC DEVICES. SIGNS THAT ARE DAMAGED BY THE CONTRACTOR WILL BE REPLACED BY CITY FORCES, AND THE CONTRACTOR WILL PAY THE CITY FOR THE COST OF REPLACEMENT.
- OLD PLANS DO NOT EXIST FOR THIS STRUCTURE.
- THE BRIDGE PAINT CONTAINS LEAD.
- THIS PROJECT HAS BEEN EVALUATED USING THE FAA NOTICE CRITERIA TOOL FOR A STRUCTURE HEIGHT OF 25 FEET ABOVE A GROUND ELEVATION OF 620 FEET AND NO PERMITS ARE REQUIRED.



3 WORKING DAYS
EXCLUDING SAT, SUN & HOLIDAYS

BEFORE YOU DIG
CALL MISS DIG

Know what's below.
Call before you dig.

NOTES:

Date:

Revisions:
1. 9/18/2024 GI comments
2. 3.

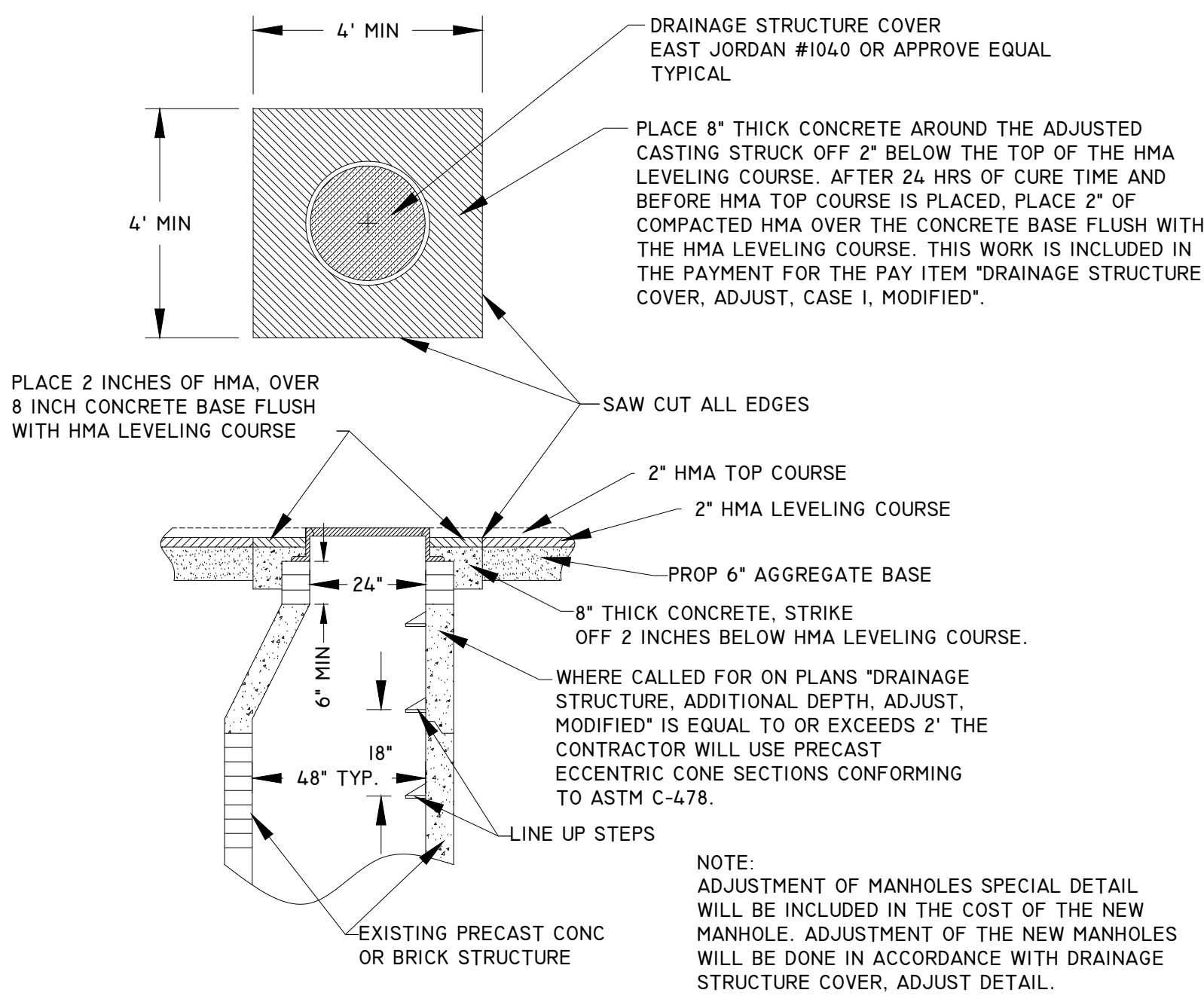
Drawn: K PARKER
Date: 2024
Checked: Date:

H 92123 AMITY,
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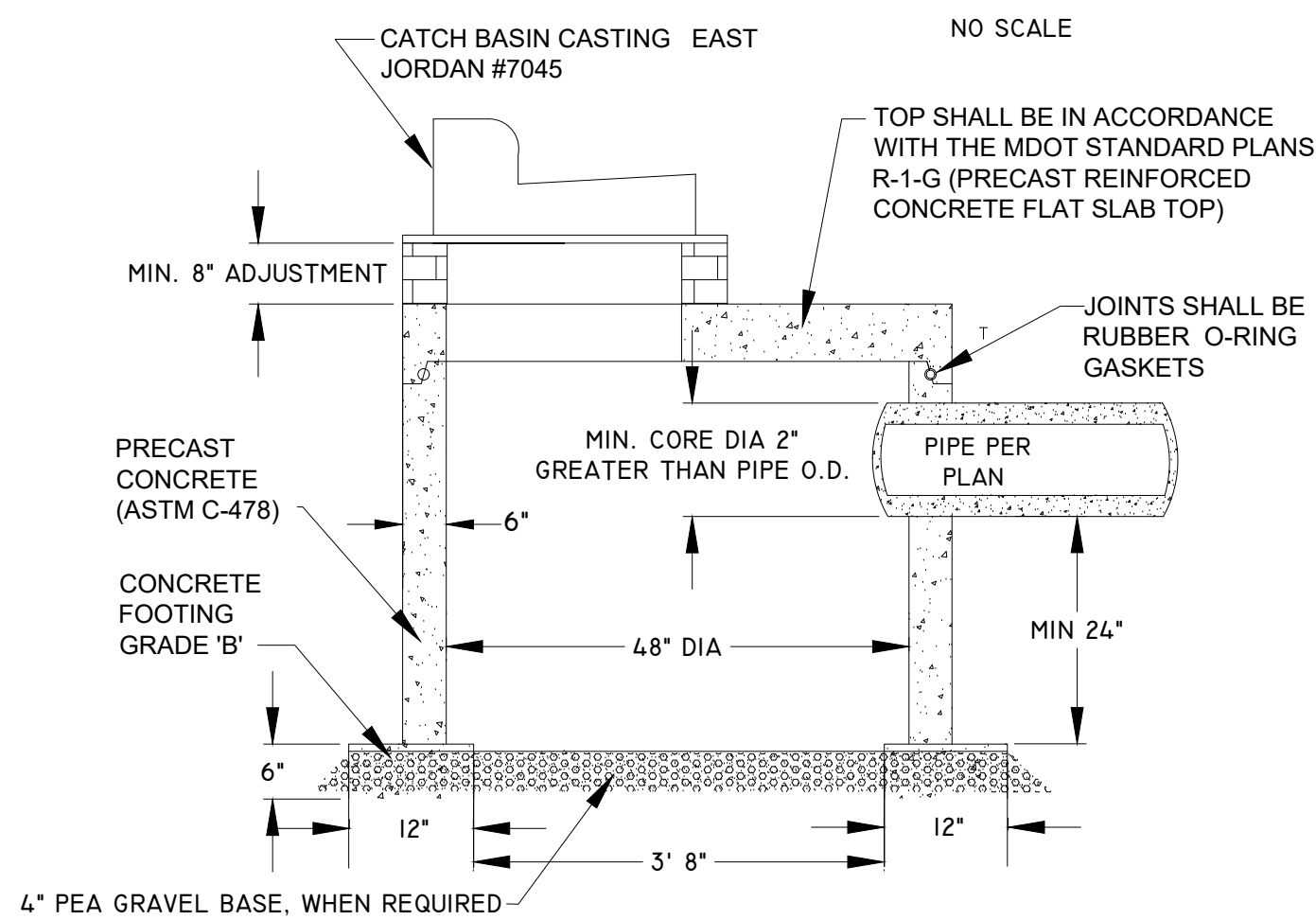
CITY OF MUSKEGON
OFFICE OF THE CITY ENGINEER

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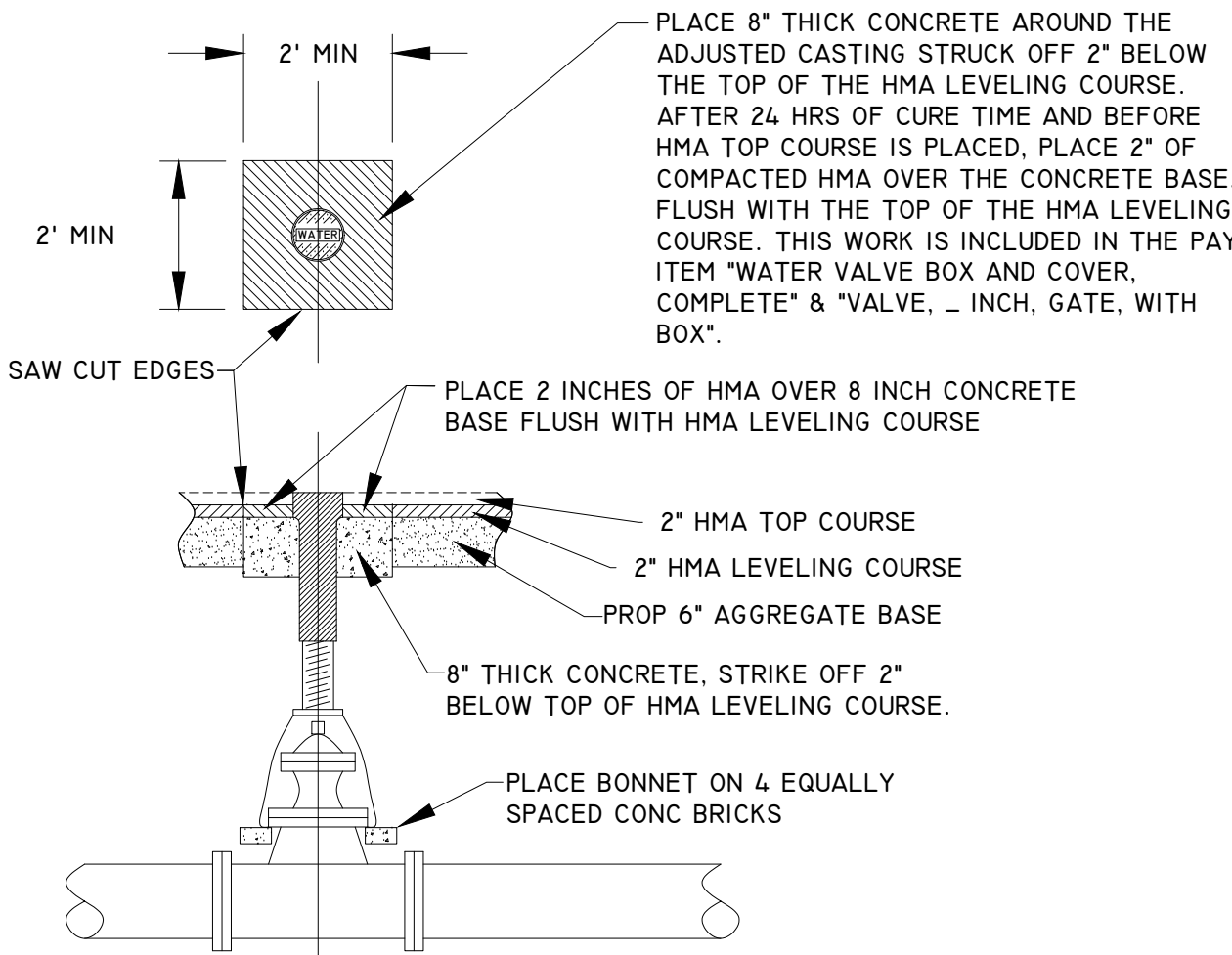
DETAIL FOR: DRAINAGE STRUCTURE COVER, ADJUST, CASE I, MOD.



DETAIL FOR: CATCH BASIN 4 FT SPECIAL DETAIL

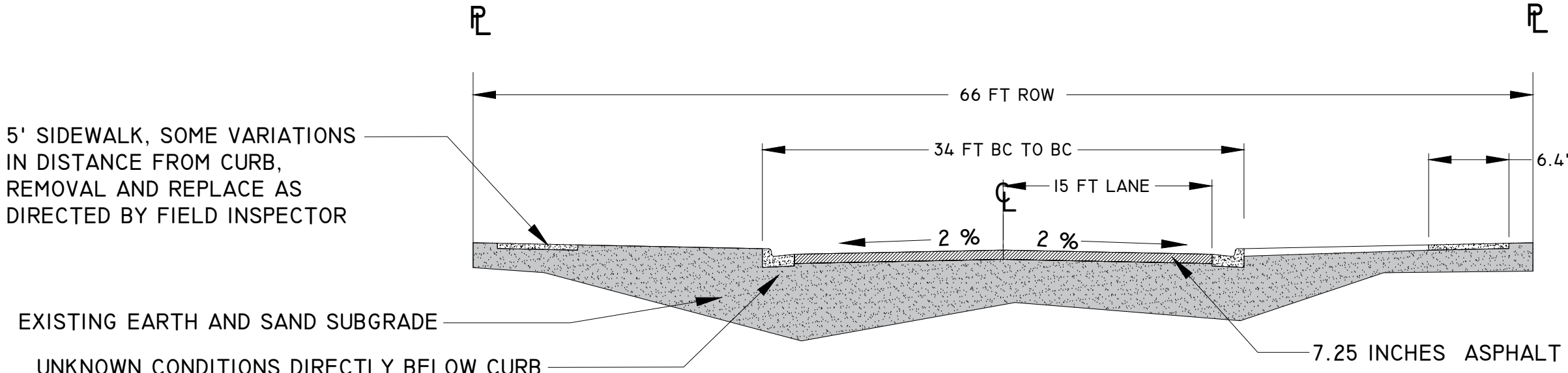


DETAIL FOR: WATER VALVE BOX AND COVER, COMPLETE

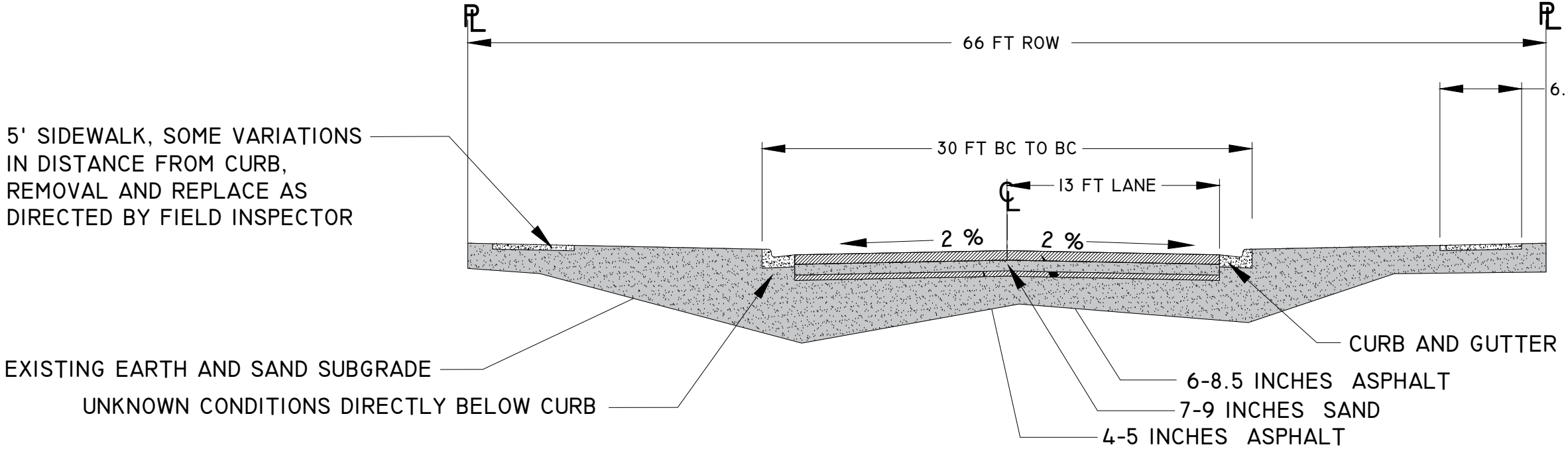


DETAIL SHEET

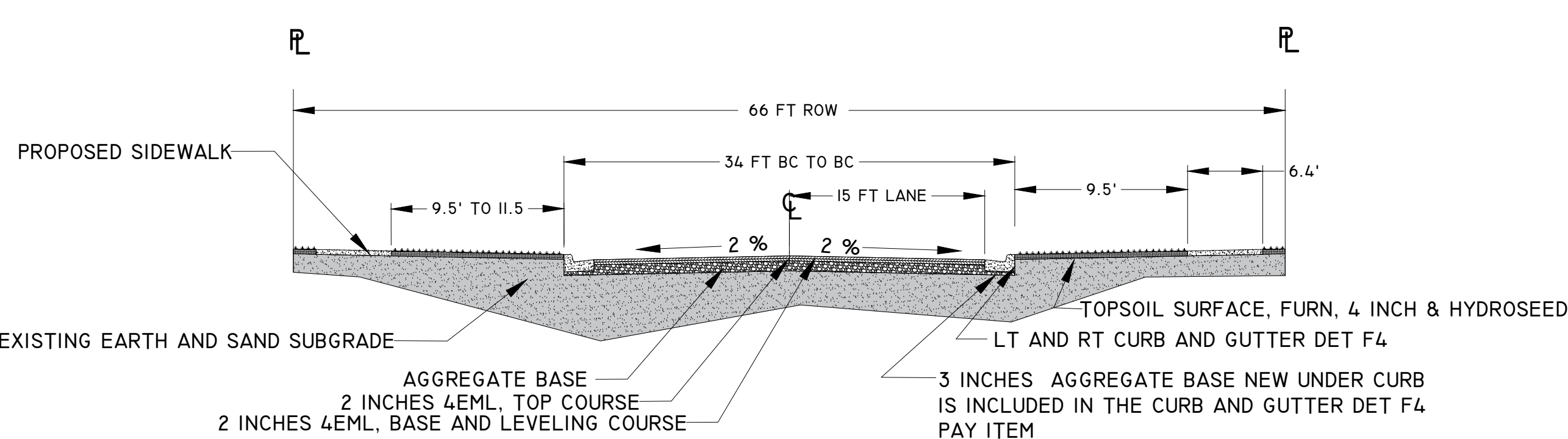
EXISTING PROFILE 0+41 TO 1+00 MYRTLE TO CEDAR



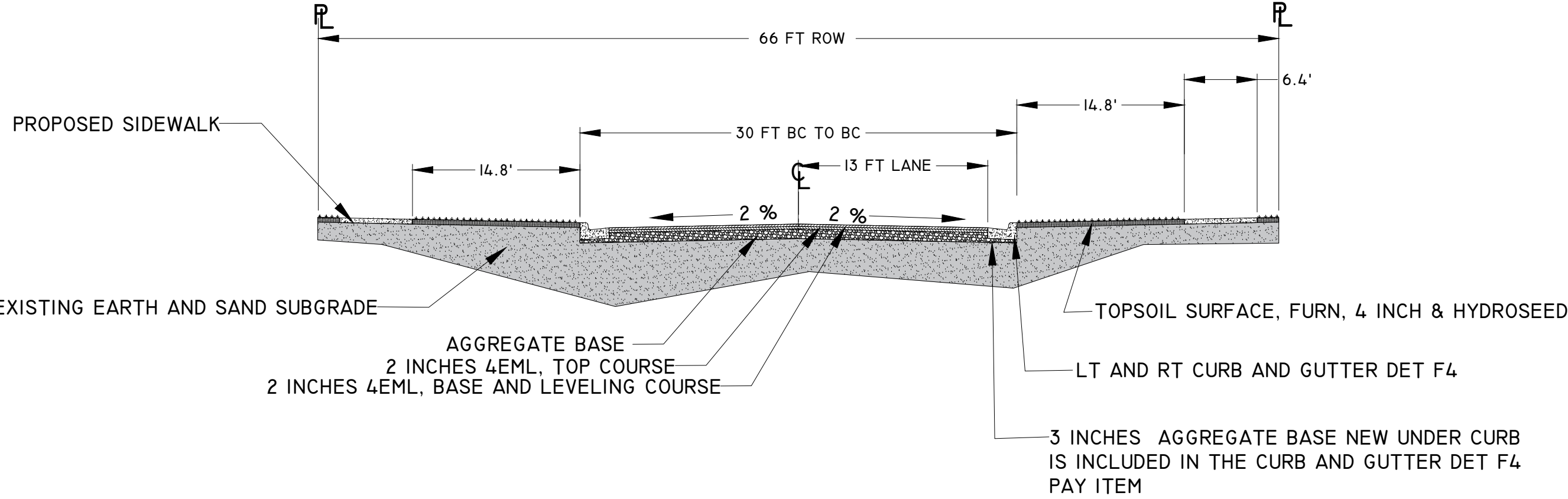
EXISTING PROFILE CEDAR AND 2+00 TO 4+77 EXCLUDING BRIDGE PORTION



PROPOSED 0+41 TO 1+13 MYRTLE TO CEDAR



PROPOSED PROFILE 1+13 TO 4+77



DRAINAGE STRUCTURE COVERS

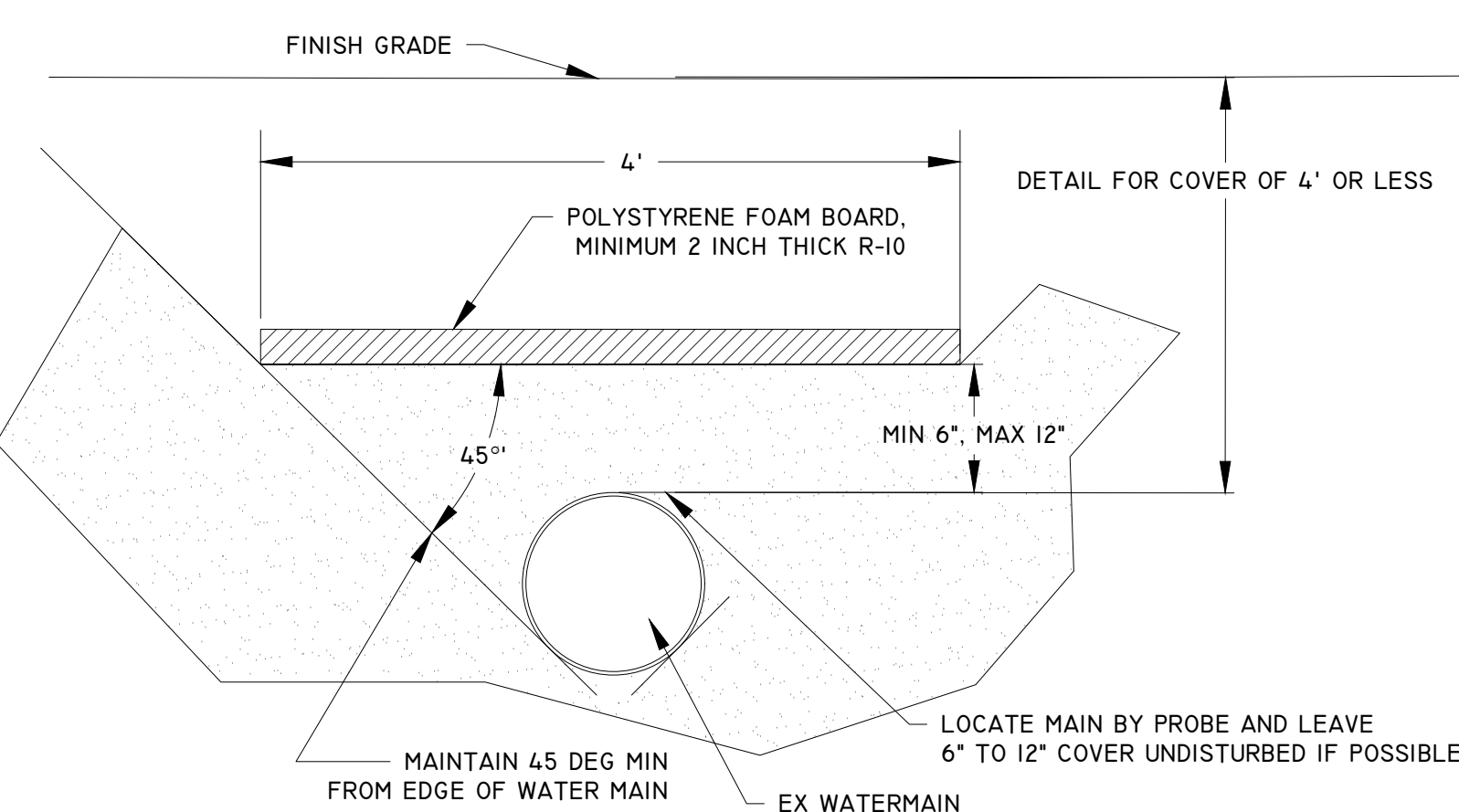
TYPE	CASTING DESCRIPTION	QTY
COVER B, MODIFIED	MANHOLE CASTING EAST JORDAN #1040 OR EQUAL SEE MANHOLE CASTING DETAIL FOR TYPE A SOLD COVER	6
COVER K, MODIFIED	CATCH BASIN CASTING EAST JORDAN #7045 OR EQUAL	4

HMA APPLICATION

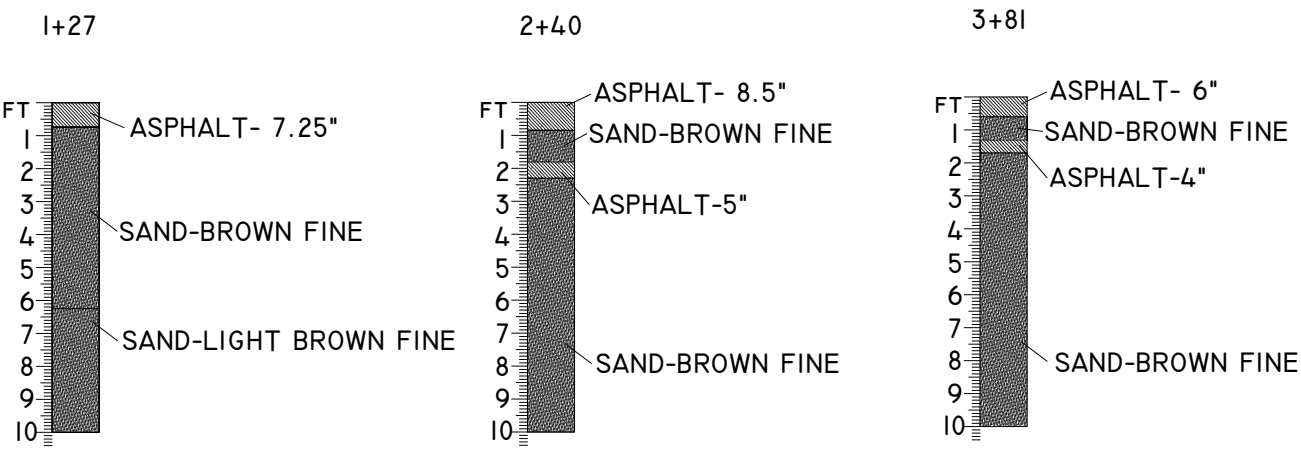
HMA MIX	RATE	PERFORMANCE GRADE	
HMA, 4E3 (TOP COURSE)	220# / SYD	64-28	2 INCH-1 LIFT
HMA, 4E3 (LEVELING COURSE)	220# / SYD	58-22	2 INCH-1 LIFT
HAND PATCHING (HMA, 4E3)	440# / SYD	64-28	4 INCH-2 LIFTS

*HMA BOND COAT, SS-IH, AT 0.05 TO 0.15 GAL/SY, SHALL BE PLACED BETWEEN EACH LIFT. THE COST IS INCLUDED WITH THE HMA, _ PAY ITEM.

DETAIL FOR: INSULATION BOARD, 2 INCH



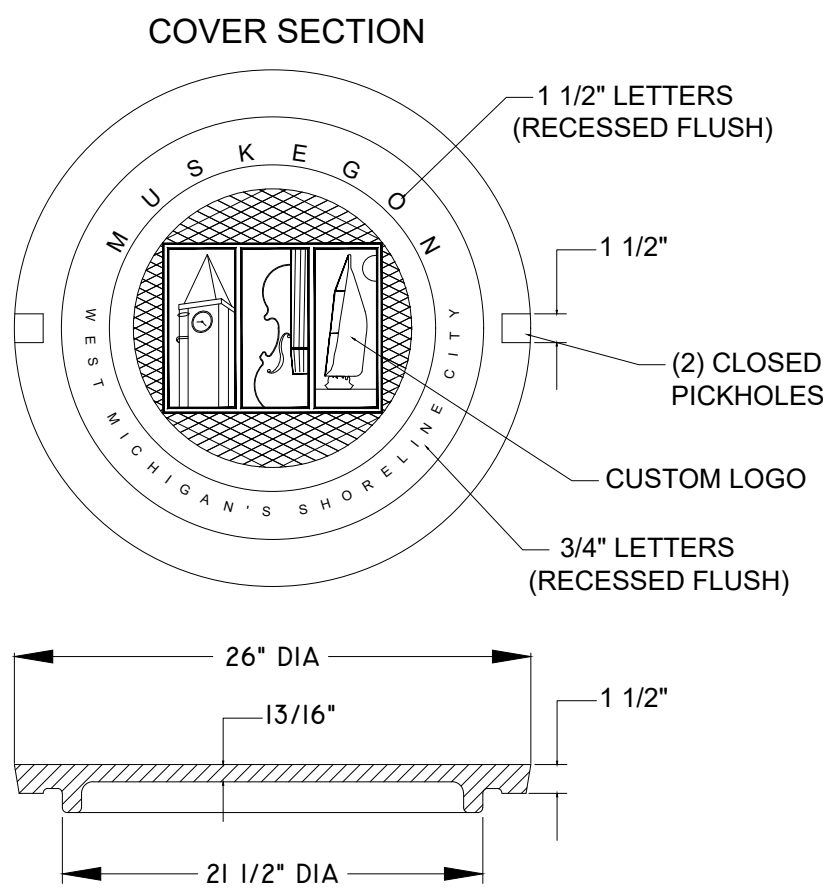
SOIL BORINGS



SOIL BORES PERFORMED ON JUNE 18, 2024 WITH 3-1/4" HOLLOW STEM AUGER. WATER NOT ENCOUNTERED. COMPLETE REPORT IS INCLUDED IN CONTRACT.

DETAIL FOR: TYPE A SOLID COVER

TYPE A LOGO MANHOLE COVER



EXCAVATION NOTE: STA 0+41 TO 4+77

EXCAVATION, EARTH: THERE WILL BE APPROXIMATELY 1731 CYD. EXCAVATION, EARTH. ALL OF EXCAVATED MATERIAL MEETING CLASS II WILL BE USED AS EMBANKMENT.

EMBANKMENT, LM: THERE WILL BE APPROXIMATELY 3251 CYD EMBANKMENT, LM. 1731 CYD FROM ONSITE EXCAVATION, EARTH AND 1520 CYD ADDITIONAL. DUE CONSTRUCTION PHASING, STOCK PILING MAY BE REQUIRED. IF STOCKING PILING IS NOT DESIRABLE, CONTRACTOR MAY REMOVE SOILS FROM THE SITE AND PROVIDE FILL AS NEEDED AT NO ADDITIONAL COST TO THE CITY. IN THIS CASE, FILL WILL BE INCLUDED IN THE PAY ITEM EMBANKMENT

NOTES:

Date:

Revisions: 1. 9/30/2024 GI comments

Drawn: K PARKER
Date: 2024
Checked: _____
Date: _____

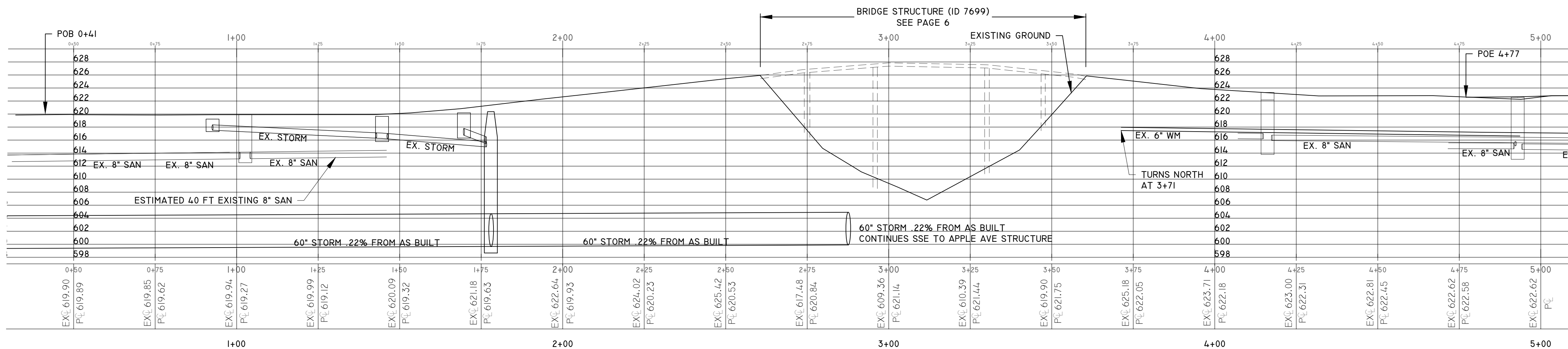
CROSS SECTION
AND DETAILS

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CITY OF MUSKEGON
OFFICE OF THE CITY ENGINEER

2

EXISTING PROFILE VIEW



QUANTITIES THIS SHEET		
DESCRIPTION	QUANTITY	UNIT
CLEARING	47	ACRE
DR STRUCTURE, REM, MOD	4	EA
SEWER, REM, LESS THAN 24 INCH	145	FT
CURB AND GUTTER, REM	809	FT
FENCE, REM	40	FT
SIDEWALK, REM	474	SYD
STRUCTURES, REM (ID 7699)	1	LSUM
EROSION CONTROL, INLET PROTECTION, FABRIC DROP	3	EA
PAV'T, REM, MOD	1506	SYD
SILT FENCE	200	FT

Drawn: K PARKER
 Date: 2024
 Revisions:
 1. 9/30/2024 GI comments
 2.
 3.
 Checked:
 Date:

EXISTING AND
DEMO

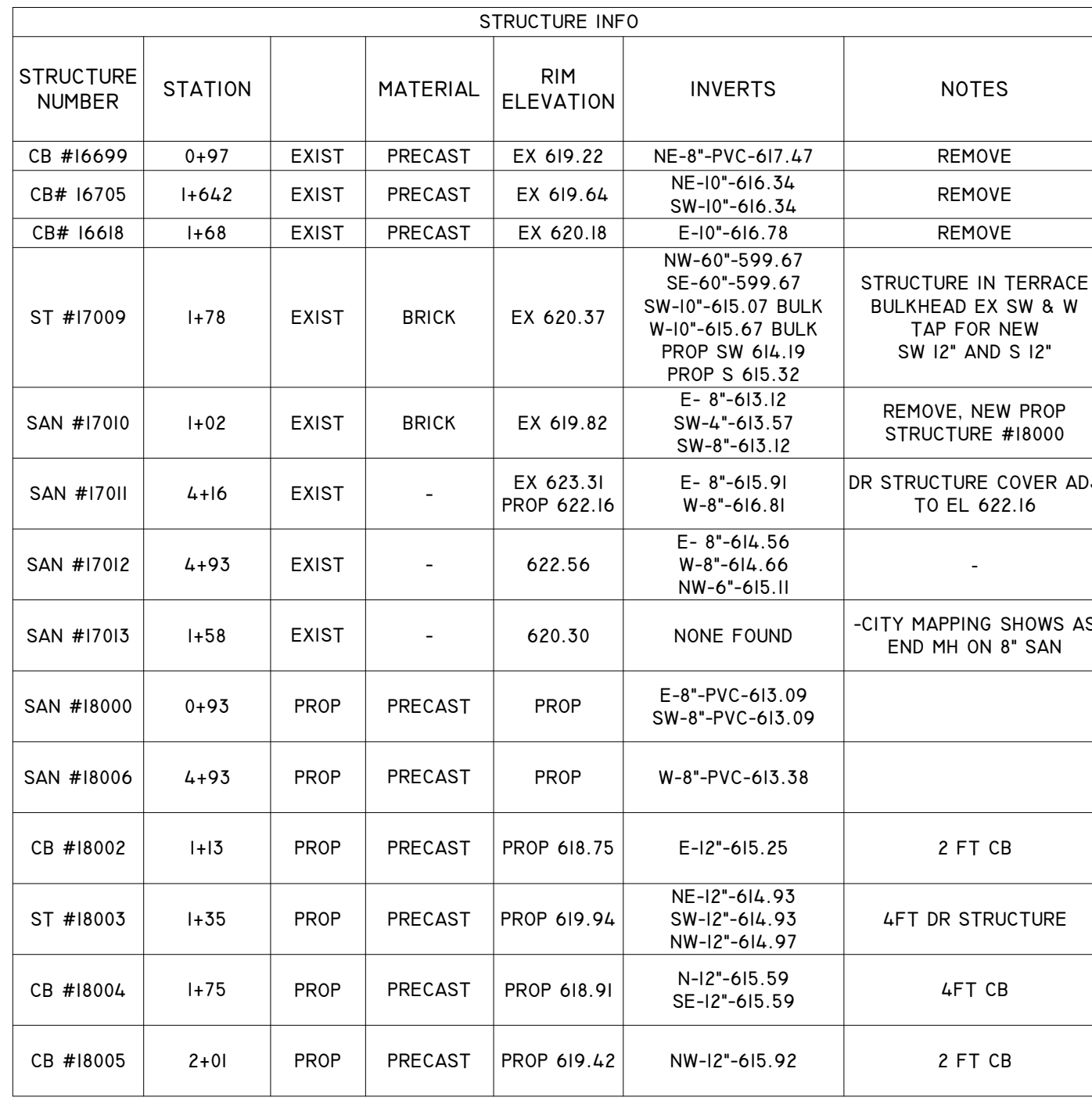
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CITY OF MUSKEGON
OFFICE OF THE CITY ENGINEER

0 10 20 FEET

North Arrow

LINETYPE LEGEND	
--	GAS
- - - -	BURIED GAS LINE
- - - -	OH LINE
- - - -	OVERHEAD WIRES
- - - -	SAN
- - - -	SANITARY SEWER
- - - -	STRM
- - - -	STORM SEWER
- - - -	ROW
- - - -	RIGHT OF WAY LINE
- - - -	WM
- - - -	WATER MAIN



PERMANENT SIGN QUANTITIES THIS SHEET						
SIGN	TYPE	DESCRIPTION	QUANTITY	DIM	AREA	TOTAL
RI-1	TYPE (IIIA)	STOP	1	30X30	6.25 SFT	6.25 SFT
WI-6	TYPE (IIIB)	ARROW (LEFT/RIGHT)	2	60X30	12.5 SFT	25 SFT
		POST, STEEL, 3 LB	5		14 FT EA	70 FT

QUANTITIES THIS SHEET		
DESCRIPTION	QUANTITY	UNIT
EMBANKMENT, LM	3251	CYD
EXCAVATION, EARTH	1731	CYD
AGGREGATE BASE, 8 INCH	1550	SYD
CULV. CL F, 12 INCH	124	FT
CULV END SECT. METAL, 12 INCH	2	EA
SANITARY SEWER TAP, 8 INCH, MODIFIED	2	EA
SANITARY SEWER, PVC, SDR 35, 8 INCH, DET B	10	FT
DR STRUCTURE COVER, ADJ, CASE 2, MODIFIED	3	EA
DR STRUCTURE, 48 INCH DIA	2	EA
DR STRUCTURE COVER, ADJ, ADD DEPTH, MODIFIED	2.5	FT
CATCH BASIN 2 FT DIA SPECIAL DETAIL	3	EA
CATCH BASIN 4 FT DIA SPECIAL DETAIL	1	EA
DR STRUCTURE COVER, TYPE B, MODIFIED	5	EA
DR STRUCTURE COVER, TYPE K, MODIFIED	4	EA
HMA, 4EML, BASE AND LEVELING	175	TON
HMA, 4EML, TOP COURSE	175	TON
DRIVEWAY, NONREINF CONC, 8 INCH	18	SFT
CURB AND GUTTER, CONC, DET F4, MOD	971	FT
DETECTABLE WARNING SURFACE	10	FT
CURB RAMP OPENING, CONC	18	FT
SIDEWALK, CONC, 4 INCH	4378	SFT
SIDEWALK, CONC, 8 INCH	50	SFT
CURB RAMP, CONC, 7 INCH	152	SFT
TOPSOIL SURFACE, FURN, 4 INCH	2634	SYD
HYDROSEEDING	2634	SYD
WATER VALVE BOX AND COVER, COMPLETE	1	EA
SANITARY MANHOLE SPECIAL DETAIL	1	EA
INSULATION BOARD, 2 INCH	456	SFT

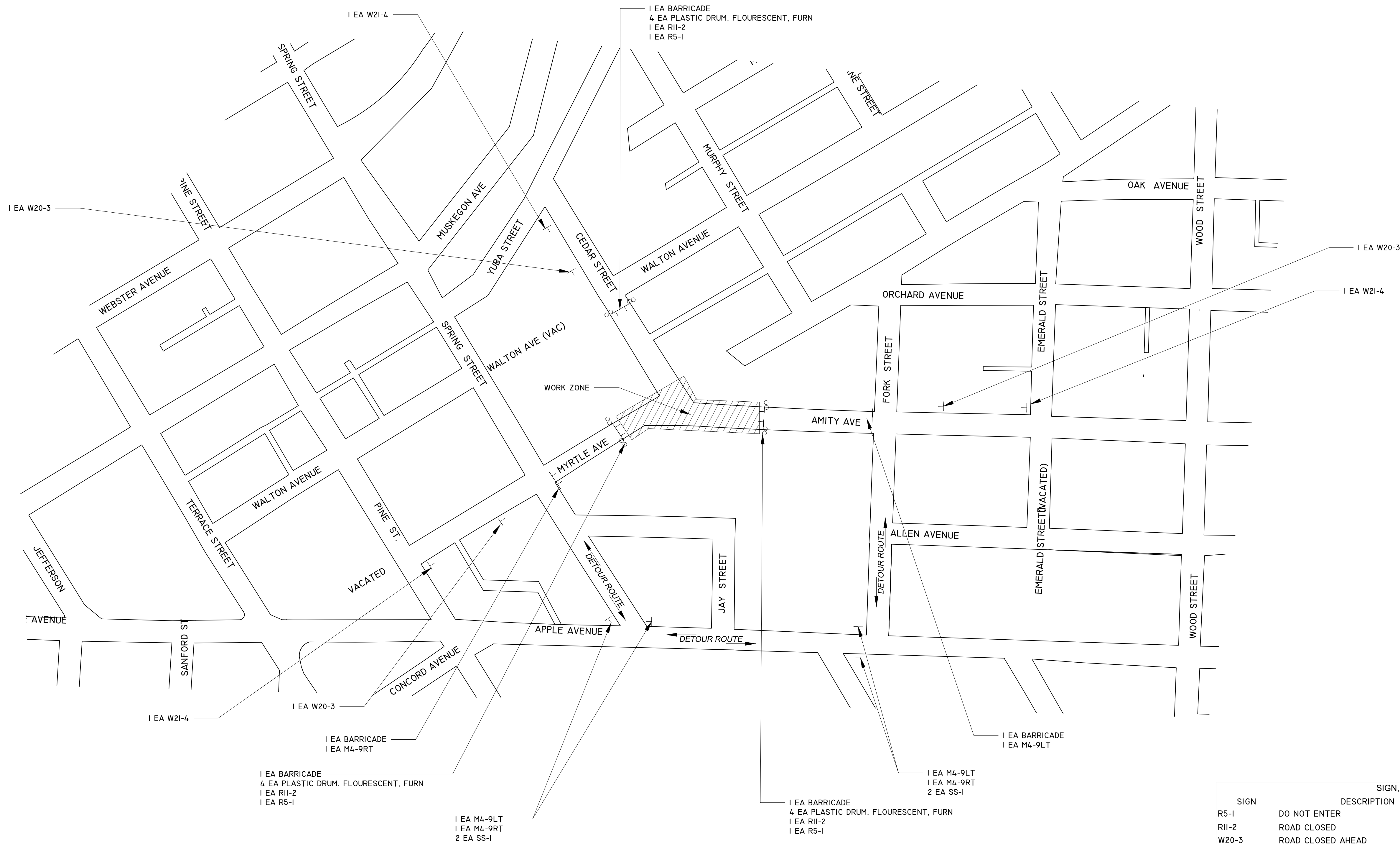
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PROPOSED

CITY OF MUSKOGEE	H 92123 AMITY,
OFFICE OF THE CITY ENGINEER	MYRTLE TO FORK

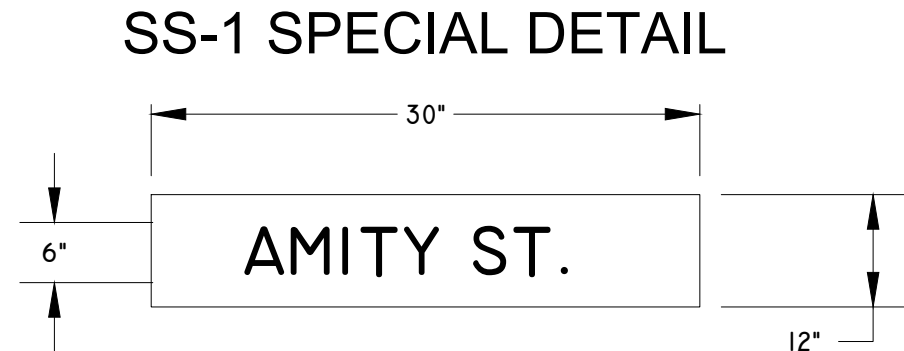
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TRAFFIC CONTROL PLANS



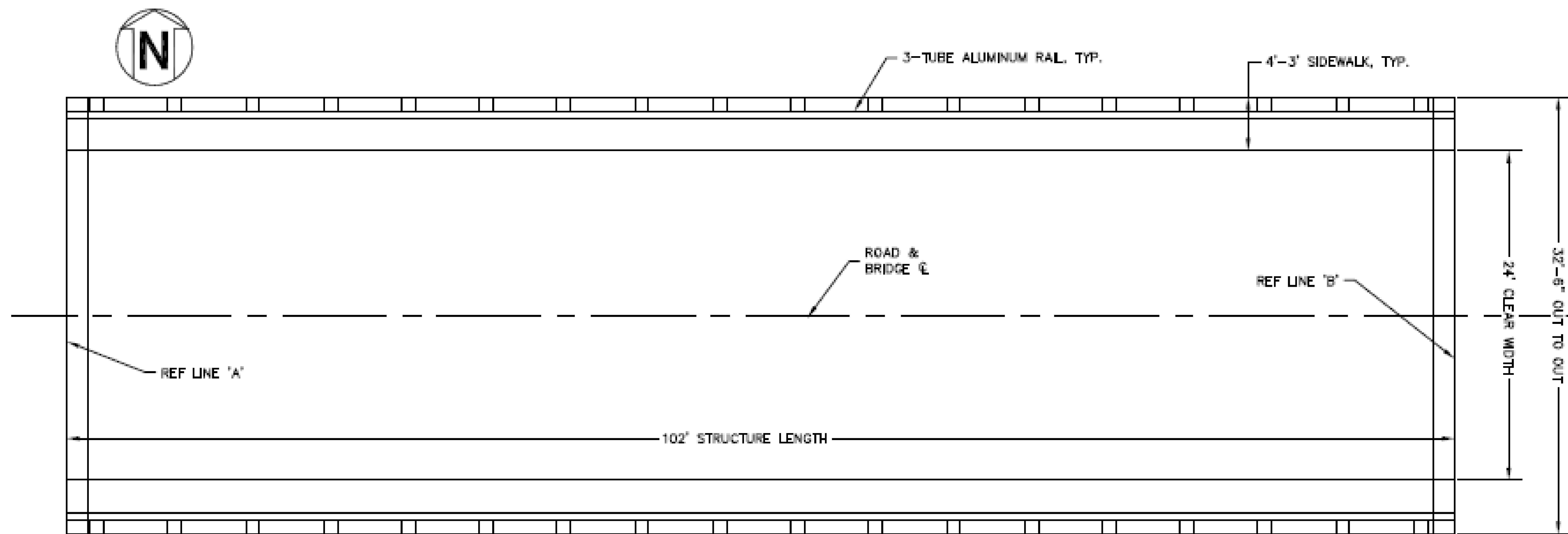
- HMA TOP COURSE SHALL BE PLACED AFTER ALL WORK, EXCEPT PAVEMENT MARKING IS COMPLETE.
- TRAFFIC CONTROL WILL COMPLETELY CLOSE ACCESS TO PUBLIC IN CONSTRUCTION AREA. NO LOCAL TRAFFIC PERMITTED.
- IN ADDITION TO THE 12 PLASTIC DRUMS USED AS CHANNELING DEVICES AND IN CONJUNCTION WITH TYPE III BARRICADES, THE CONTRACTOR WILL SUPPLY AN ADDITIONAL 30 PLASTIC DRUMS FOR IDENTIFYING HAZARDS IN THE CONSTRUCTION ZONE.

SIGN, TYPE B, TEMPORARY, SPECIAL			
DESCRIPTION	QUANTITY	AREA	TOTAL
SS-1	4	1.25 SFT	5 SFT



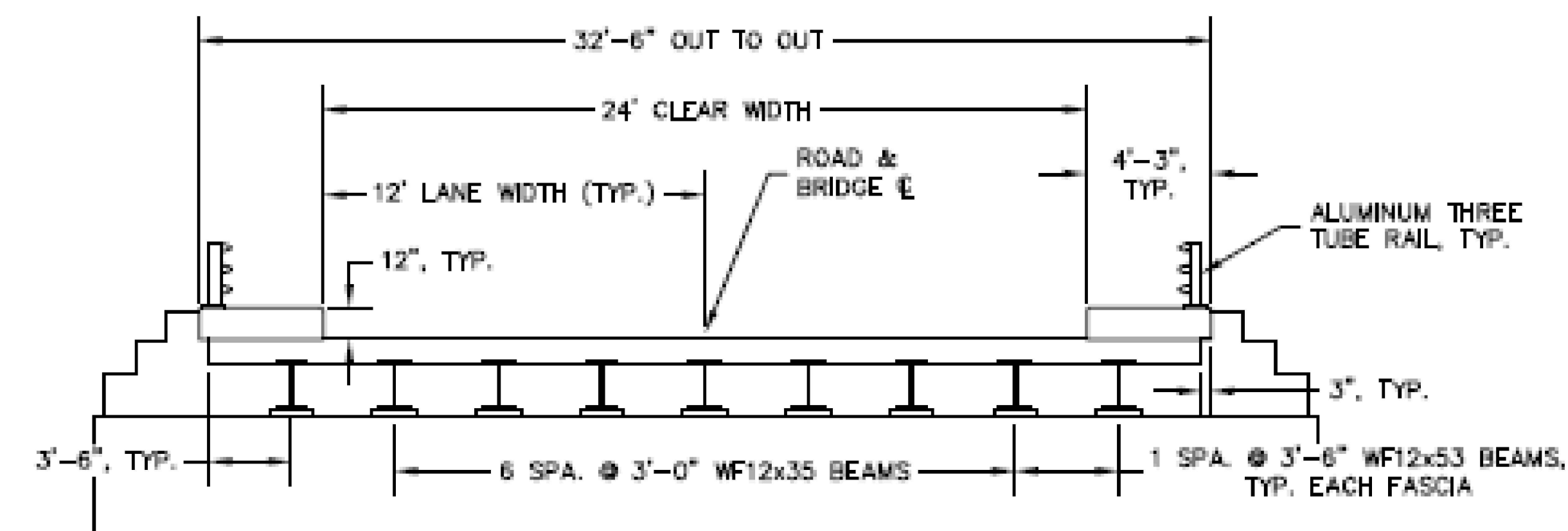
SIGN, TYPE B, TEMPORARY					
SIGN	DESCRIPTION	QUANTITY	DIM	AREA	TOTAL
R5-1	DO NOT ENTER	3	30X30	6.25 SFT	18.75 SFT
RII-2	ROAD CLOSED	3	30X60	12.5 SFT	37.5 SFT
W20-3	ROAD CLOSED AHEAD	3	48X48	16 SFT	37.5 SFT
W21-4	ROAD WORK AHEAD	3	48X48	16 SFT	37.5 SFT
M4-9RT	DETOUR (RT)	3	30X24	5 SFT	15 SFT
M4-9LT	DETOUR (LT)	3	30X24	5 SFT	15 SFT
R9-9	SIDEWALK CLOSED	6	12X18	1.5 SFT	9 SFT
				170.25	SFT

QUANTITIES THIS SHEET		
DESCRIPTION	QUANTITY	UNIT
MINOR TRAFFIC DEVICES	1	LS
BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, FURN	5	EA
BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, OPER	5	EA
PLASTIC DRUM, FLUORESCENT, FURN	42	EA
PLASTIC DRUM, FLUORESCENT, OPER	42	EA
SIGN, TYPE B, TEMP, PRISMATIC, FURN	171	SFT
SIGN, TYPE B, TEMP, PRISMATIC, OPER	171	SFT
SIGN, TYPE B, TEMP, PRISMATIC, SPECIAL, FURN	5	SFT
SIGN, TYPE B, TEMP, PRISMATIC, SPECIAL, OPER	5	SFT

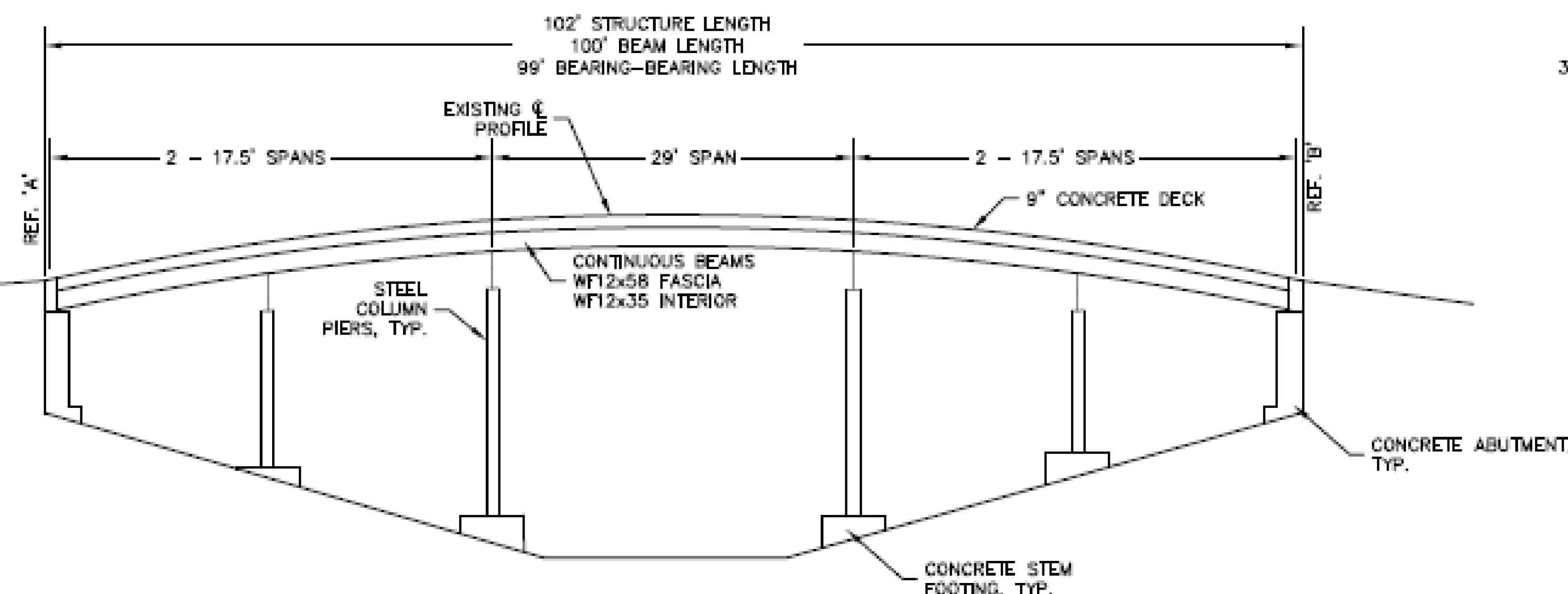


PLAN VIEW
SCALE: NOT TO SCALE

FOR INFORMATION ONLY



SECTION VIEW
SCALE: NOT TO SCALE



ELEVATION VIEW
SCALE: NOT TO SCALE

SN 7699 ASSUMPTIONS:

F_y: 36 ksi
F_c: 3 ksi
UNBRACED LENGTH: TOP FLANGE EMBEDDED IN DECK
SKEW: 0
DECK DEPTH: 9 in
HAUNCH DEPTH: 0 in
HMA: 0 in
RAIL WT: 20 lb/ft

SN 7699

CITY OF
MUSKEGON

GENERAL PLAN OF STRUCTURE
AMITY STREET OVER
ABANDONED RAILROAD GRADE

SCED

SCOTT CIVIL ENGINEERING COMPANY
GRAND RAPIDS, MICHIGAN

DRAWN BY: [] CHECKED BY: [] DATE: 10/19/22