

- NOTES:
- CONTRACTOR IS RESPONSIBLE FOR CALCULATING THEIR OWN EARTHWORK/GRADING TAKEOFF QUANTITIES FOR THE PROPOSED SITE. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS ENCOURAGED TO VISIT THE SITE TO BETTER DETERMINE THE NECESSARY AMOUNT OF STRIPPING TO OCCUR THROUGHOUT THE SITE.
  - TOPSOIL SHALL NOT BE USED AS FILL UNDER THE PAVEMENT OR BUILDING AREAS.
  - AGGREGATE BASE SHALL BE MNDOT CLASS 5. QUANTITY FOR AGGREGATE BASE IS ASSUMED TO BE IN PLACE AND COMPACTED. CONTRACTOR SHALL MAKE ADJUSTMENTS FOR LOOSE VOLUME IF NECESSARY.
  - AGGREGATE BASE AND GEOTEXTILE FABRIC QUANTITIES ASSUME THEY EXTEND 1' BEYOND EDGE OF PAVEMENT.
  - GEOTEXTILE FABRIC PANELS SHALL BE A MINIMUM OF 12' WIDE AND INSTALLED WITH A MINIMUM OVERLAP OF 18" WITH JOINTS ORIENTATED TO FOLLOW TRAFFIC MOVEMENT.
  - GEOTEXTILE FABRIC QUANTITY DOES NOT INCLUDE REQUIRED OVERLAP.
  - GEOTEXTILE FABRIC SHALL BE MNDOT TYPE V GEOTEXTILE.
  - WHERE RUNOFF DRAINS AWAY FROM CURBING, GUTTER SHALL BE INSTALLED AS OUTFLOW. WHERE CURBING RECEIVES WATER, GUTTER SHALL BE INSTALLED AS INFLOW.
  - SEE THE OVERALL SITE PLAN SHEET C-4 FOR NON-STANDARD HEIGHT CURBING LOCATIONS.

	DAYLIGHT EDGE
	NEW CURB(IN-FLOW)
	NEW CURB(OUT-FLOW)
	GRADE BREAK/FLOWLINE/HIGH POINT
	FINISH GROUND
	FLOWLINE
	HIGH POINT
	STRUCTURE INVERT ELEVATION
	LOW POINT
	MIDPOINT OF CURVE
	MATCH EXISTING GROUND
	POINT OF CURVATURE
	STRUCTURE RIM ELEVATION
	TOP OF CURB/THICKENED EDGE
	TOP OF CONCRETE
	TOP OF WALK
	TOP OF WALL
	BOTTOM OF WALL

	ADA ACCESSIBLE ROUTE
	MEETS ADA GRADING REQUIREMENTS

PROJECT BENCHMARK #1: TOP NUT OF EXISTING FIRE HYDRANT LOCATED APPROXIMATELY 5 FEET EAST FROM THE SOUTHWEST CORNER OF THE SUBJECT PROPERTY. ELEVATION: 1198.94 (NAVD 83)

PROJECT BENCHMARK #2: RIM OF EXISTING SANITARY MANHOLE LOCATED APPROXIMATELY 21 FEET NORTHWEST FROM THE SOUTHWEST CORNER OF THE SUBJECT PROPERTY. ELEVATION: 1200.55 (NAVD 83)

PROJECT BENCHMARK #3: RIM OF EXISTING SANITARY MANHOLE LOCATED APPROXIMATELY 98 FEET NORTHWEST FROM THE NORTHWEST CORNER OF THE SUBJECT PROPERTY. ELEVATION: 1197.82 (NAVD 83)

BASIS OF BEARING: CROW WING COUNTY

NO.	REVISIONS

**7 BREW DRIVE-THRU COFFEE**  
**1050 HIGHWAY 210 WEST**  
**BAXTER, MINNESOTA**

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.

*Andrew J. Thill*  
ANDREW J. THILL  
DATE: 1/7/26  
LICENSE # 51435

LE JOB #	25017.1
PROJECT DATE:	1/7/2026
CHECKED BY:	AJT
DRAWN BY:	TJJ
APPROVED BY:	AJT

CALL BEFORE YOU DIG  
MINNESOTA  
UTILITIES UNDERGROUND LOCATION SERVICE  
1-800-252-1166

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## SWPPP NARRATIVE

**\* CONTRACTOR SHALL FILL IN ALL INFORMATION IN SHADED AREAS \***

**PROJECT NAME**  
7 BREW DRIVE-THRU COFFEE

**PROJECT LOCATION**  
1050 HIGHWAY 210 WEST  
BAXTER, MINNESOTA 56425  
CROW WING COUNTY  
SECTION: 5  
TOWNSHIP: 133  
RANGE: 28  
QUARTER SECTION: DDA  
LATITUDE: 46.355966°N  
LONGITUDE: 94.223823°W  
METHOD FOR DETERMINING LATITUDE/LONGITUDE: MAP  
IS THE SITE LOCATED ON INDIAN COUNTRY LANDS, OR ON A PROPERTY OF RELIGIOUS OR CULTURAL SIGNIFICANCE TO AN INDIAN TRIBE? NO

**PROJECT SIZE**  
TOTAL PROJECT AREA - 1.11 ACRES  
AREA TO BE DISTURBED - 1.34 ACRES  
IMPERVIOUS AREA BEFORE CONSTRUCTION - 18,603 SF  
PERCENTAGE IMPERVIOUS AREA BEFORE CONSTRUCTION - 38.6%  
IMPERVIOUS AREA AFTER CONSTRUCTION - 22,641 SF  
PERCENTAGE IMPERVIOUS AREA AFTER CONSTRUCTION - 47.0%

**PROJECT TYPE AND DESCRIPTION**  
TYPE: COMMERCIAL  
DESCRIPTION: CONSTRUCTION ACTIVITIES INCLUDE A NEW BUILDING ON AN UNDEVELOPED LOT. THIS BUILDING WILL RESULT IN NEW SANITARY AND WATER SERVICES, STORM SEWER AND THREE NEW DRIVEWAYS AND PARKING LOT.

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT**

TRACKING NUMBER: \_\_\_\_\_

**RECEIVING WATERS**  
DOES THE SITE DISCHARGE STORMWATER INTO A MUNICIPAL SEPARATE STORM SEWER SYSTEM? YES  
ARE THERE ANY WATERS WITHIN 50 FEET OF THE SITE? NO  
IS THE END BODY OF WATER LISTED ON IMPAIRED WATERS OR TMDL LIST? UNKNOWN  
DESCRIBE RECEIVING WATERS: CITY OF BAXTER STORM SEWER SYSTEM. UNKNOWN WHERE IT LEADS TO.

**DRAINAGE PATTERNS**  
THE SITE CURRENTLY FLOWS TO THE NORTH EAST CORNER TO AN EXISTING DRY POND. AFTER CONSTRUCTION, STORMWATER WILL FLOW TO NEW INLETS OR THROUGH CURB CUTS WHERE IT WILL ALL LEAD TO THE EXISTING POND TO THE NORTHEAST.

**SOIL TYPE(S)**  
PREDOMINANT SOIL(S) AREA:  
ZIMMERMAN-URBAN LAND COMPLEX, 0-6% SLOPES, RATING A SOILS

**ENDANGERED SPECIES**  
ARE THERE ANY KNOWN ENDANGERED SPECIES OR THREATENED SPECIES AND CRITICAL HABITATS ON OR NEAR THE PROJECT AREA? ARE NOT KNOWN

**HISTORIC PRESERVATION**  
ARE THERE ANY KNOWN HISTORIC SITES ON OR NEAR THE CONSTRUCTION SITE? ARE NOT KNOWN

**ESTIMATED DATES OF CONSTRUCTION**

START DATE: \_\_\_\_\_

COMPLETION DATE: \_\_\_\_\_

**RAIN GAUGE**

RAIN GAUGE LOCATION (IF APPLICABLE): \_\_\_\_\_

**OWNER CONTACT INFORMATION**

COLD BREW, LLC  
MIKE ARNDT  
P.O. BOX 476  
MAIZE, KS 67101  
620-466-5000  
Mike@natmodusa.com

**CONTRACTOR**

BUSINESS NAME: \_\_\_\_\_

CONTACT NAME: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

EMAIL ADDRESS: \_\_\_\_\_

**EMERGENCY 24-HOUR CONTACT**

BUSINESS NAME: \_\_\_\_\_

CONTACT NAME: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

**PARTY RESPONSIBLE FOR LONG TERM OPERATION & MAINTENANCE OF STORM SEWER SYSTEM**  
SEE OWNER INFORMATION

**POLLUTANTS**  
POTENTIAL POLLUTANTS ON SITE ARE UNSTABILIZED SOILS, FUELS, LUBRICANTS, LITTER AND DEBRIS, BUILDING MATERIALS, OFF SITE TRACKING, SANITARY WASTE;

OTHER: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**LIST OF AUTHORIZED NON-STORMWATER DISCHARGES PRESENT AT THE SITE**

AUTHORIZED NON-STORMWATER DISCHARGE	WILL OR MAY OCCUR AT YOUR SITE?	
DISCHARGES FROM EMERGENCY FIRE-FIGHTING ACTIVITIES	<input type="checkbox"/> YES	<input type="checkbox"/> NO
FIRE HYDRANT FLUSHINGS	<input type="checkbox"/> YES	<input type="checkbox"/> NO
LANDSCAPE IRRIGATION	<input type="checkbox"/> YES	<input type="checkbox"/> NO
WATER USED TO WASH VEHICLES	<input type="checkbox"/> YES	<input type="checkbox"/> NO
WATER USED TO CONTROL DUST	<input type="checkbox"/> YES	<input type="checkbox"/> NO
POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHINGS	<input type="checkbox"/> YES	<input type="checkbox"/> NO
EXTERNAL BUILDING WASHDOWN (SOAPS/SOLVENTS ARE NOT USED AND EXTERNAL SURFACES DO NOT CONTAIN HAZARDOUS SUBSTANCES)	<input type="checkbox"/> YES	<input type="checkbox"/> NO
PAVEMENT WASH WATERS	<input type="checkbox"/> YES	<input type="checkbox"/> NO
UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE	<input type="checkbox"/> YES	<input type="checkbox"/> NO
UNCONTAMINATED, NON-TURBID DISCHARGES OF GROUND WATER OR SPRING WATER	<input type="checkbox"/> YES	<input type="checkbox"/> NO
FOUNDATION OR FOOTING DRAINS	<input type="checkbox"/> YES	<input type="checkbox"/> NO
UNCONTAMINATED CONSTRUCTION DEWATERING WATER	<input type="checkbox"/> YES	<input type="checkbox"/> NO

NOTE: IF MARKED YES, CONTRACTOR SHALL IDENTIFY LOCATIONS ON THE PLAN SHEET.

**CHEMICALS**

LIST OF CHEMICALS AND STORAGE PLACE FOR EACH (IF APPLICABLE):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**SPILL PREVENTION AND RESPONSE:**  
DESCRIBE PROCEDURES YOU WILL USE TO PREVENT AND RESPOND TO LEAKS, SPILLS, AND OTHER RELEASES:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**FUELING AND MAINTENANCE OF EQUIPMENT OR VEHICLES**  
DESCRIBE EQUIPMENT/VEHICLE FUELING AND MAINTENANCE PRACTICES THAT WILL BE IMPLEMENTED TO ELIMINATE THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**WASHING OF EQUIPMENT AND VEHICLES**  
DESCRIBE EQUIPMENT/VEHICLE WASHING PRACTICES THAT WILL BE USED TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER TYPES OF WASH WATERS:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DESCRIBE HOW YOU WILL PREVENT THE DISCHARGE OF SOAPS, DETERGENTS, OR SOLVENTS AND PROVIDE STORAGE BY EITHER (1) COVER TO PREVENT THESE DETERGENTS FROM COMING INTO CONTACT WITH RAINWATER, OR (2) A SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THESE AREAS:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**TRAINING DOCUMENTATION**

SWPPP PREPARATION	TANNER JOSE - LOWRY ENGINEERING
PREPARED BY:	12/01/2025
DATE PREPARED:	701-235-0199
PHONE NUMBER:	tjose@lowryeng.com
EMAIL:	MARCH OF 2023
DATE OF TRAINING:	VIRTUAL CLASS ON DEMAND
NAME OF INSTRUCTOR:	UNIVERSITY OF MINNESOTA
ENTITY PROVIDING TRAINING:	DESIGN OF CONSTRUCTION STORMWATER
CONTENT OF TRAINING COURSE:	POLLUTION PREVENTION PLANS
TOTAL HOURS OF TRAINING:	12 HOURS

SWPPP IMPLEMENTATION, REVISING, AMENDING, AND INSPECTING

NAME: \_\_\_\_\_

DATE OF TRAINING: \_\_\_\_\_

NAME OF INSTRUCTOR: \_\_\_\_\_

ENTITY PROVIDING TRAINING: \_\_\_\_\_

CONTENT OF TRAINING COURSE: \_\_\_\_\_

TOTAL HOURS OF TRAINING: \_\_\_\_\_

BMP INSTALLATION, MAINTENANCE, AND REPAIR

NAME: \_\_\_\_\_

DATE OF TRAINING: \_\_\_\_\_

NAME OF INSTRUCTOR: \_\_\_\_\_

ENTITY PROVIDING TRAINING: \_\_\_\_\_

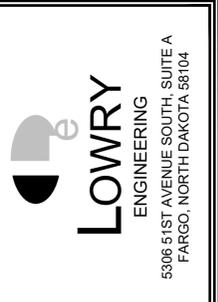
CONTENT OF TRAINING COURSE: \_\_\_\_\_

TOTAL HOURS OF TRAINING: \_\_\_\_\_

**CERTIFICATION AND NOTIFICATION**  
I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_



REVISIONS	
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**1050 HIGHWAY 210 WEST**  
**BAXTER, MINNESOTA**

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LICENSE #: 51435

LE JOB #	25017.1
PROJECT DATE:	1/7/2026
CHECKED BY:	AJT
DRAWN BY:	TJJ
APPROVED BY:	AJT

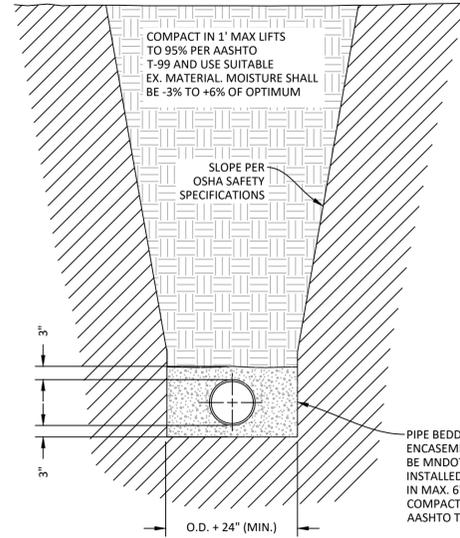
SWPPP NARRATIVE

**C-7.2**

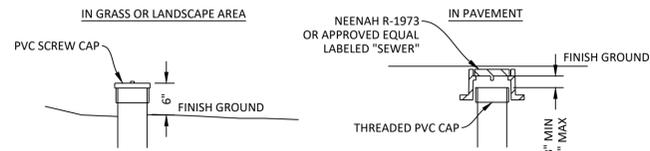
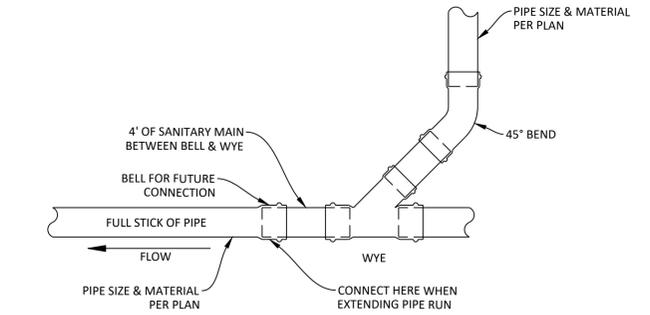
**DISCLAIMER**  
THIS SWPPP TEMPLATE WAS PARTIALLY COMPLETED BY LOWRY ENGINEERING FOR USE BY THE RESPONSIBLE PARTY FOR THE PROPOSED CONSTRUCTION PROJECT. LOWRY ENGINEERING IS NOT RESPONSIBLE FOR THE ACCURACY, ENFORCEMENT, MAINTENANCE, OR MANAGEMENT OF THE SWPPP IN ANY WAY AND MAKES NO REPRESENTATION REGARDING THE MATTER.



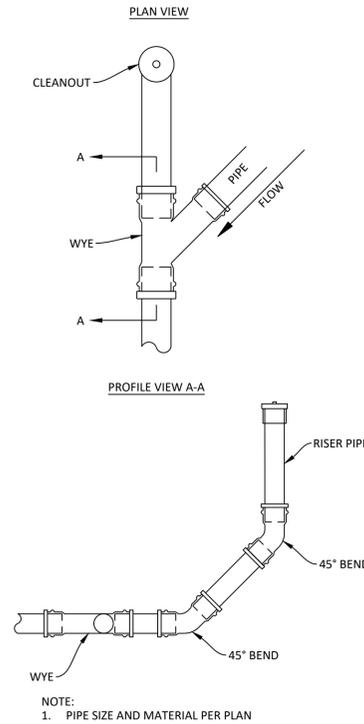




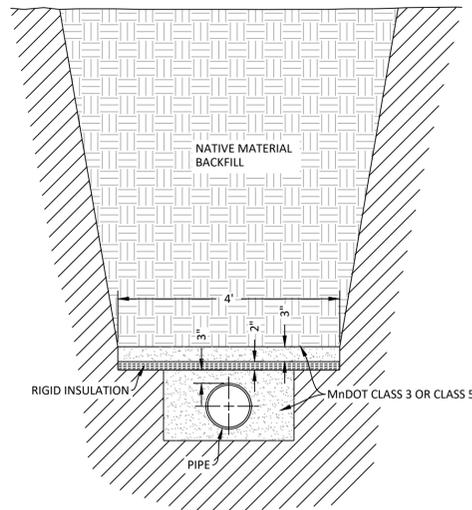
**1 SANITARY TRENCH BACKFILL**  
N.T.S.



**2 SANITARY SEWER CLEANOUT**  
N.T.S.

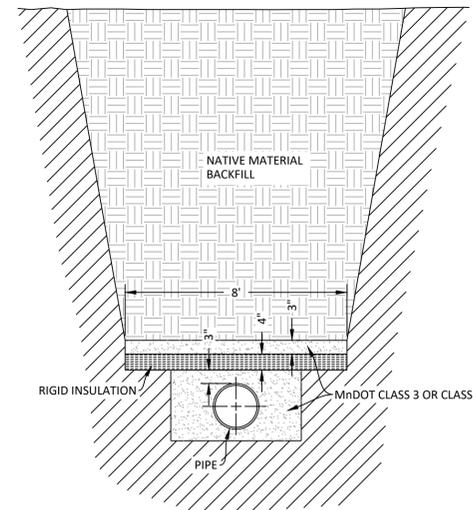


**3 SANITARY SEWER CLEANOUT AT BEND**  
N.T.S.



NOTE:  
1. THIS DETAIL IS INTENDED TO SHOW THE INSULATION PORTIONS ONLY. TRENCH BACKFILL AND OTHER ITEMS SHALL BE PER TRENCH DETAIL.  
2. RIGID INSULATION SHALL BE POLYSTYRENE PLASTIC FOAM SPECIFICALLY DESIGNED FOR USE IN UNDERGROUND CONSTRUCTION. SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 35 PSI. BOARDS MUST COMPLY WITH ASTM-D 1621.

**4 SINGLE LAYER INSULATION IN TRENCH - 2"**  
N.T.S.



NOTE:  
1. THIS DETAIL IS INTENDED TO SHOW THE INSULATION PORTIONS ONLY. TRENCH BACKFILL AND OTHER ITEMS SHALL BE PER TRENCH DETAIL.  
2. RIGID INSULATION SHALL BE POLYSTYRENE PLASTIC FOAM SPECIFICALLY DESIGNED FOR USE IN UNDERGROUND CONSTRUCTION. SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 35 PSI. BOARDS MUST COMPLY WITH ASTM-D 1621.

**5 DOUBLE LAYER INSULATION IN TRENCH - 4"**  
N.T.S.

REVISIONS


**7 BREW DRIVE-THRU COFFEE**  
**1050 HIGHWAY 210 WEST**  
**BAXTER, MINNESOTA**

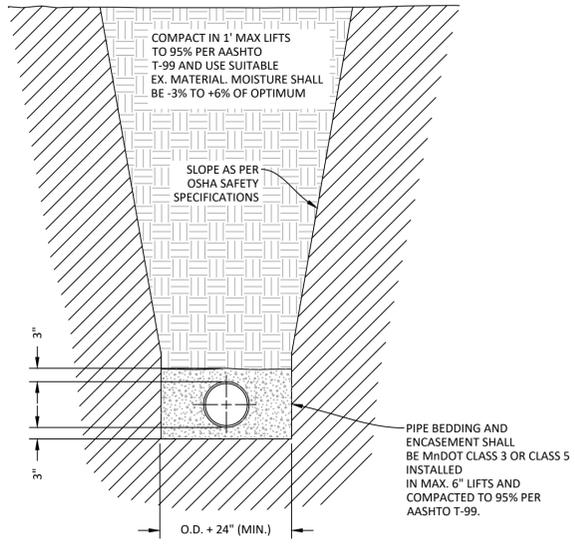
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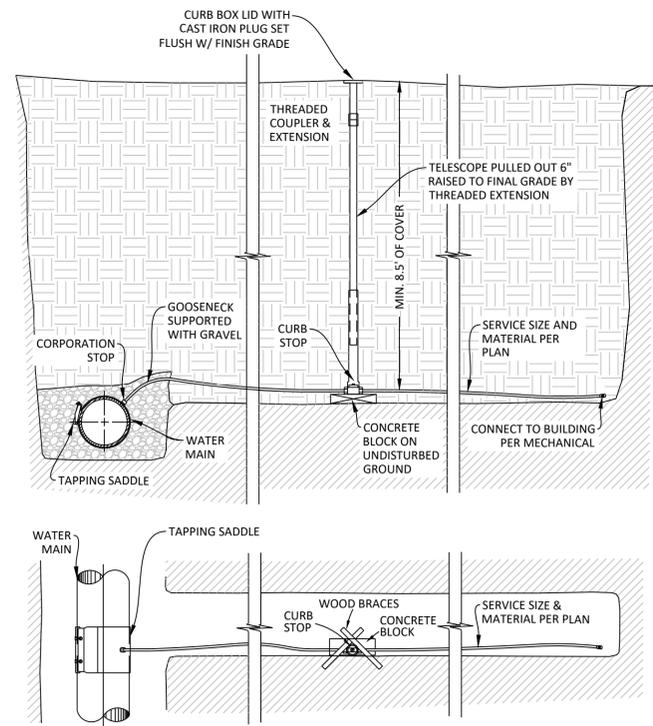
TYPICAL DETAILS

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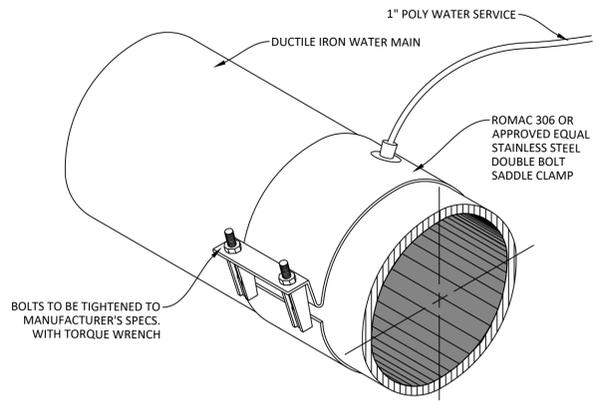
NOTE:  
1. CONTRACTOR SHALL INSTALL RIBBON 18" ABOVE TOP OF CENTER OF PIPE.

1 WATER MAIN TRENCH DETAIL  
N.T.S.



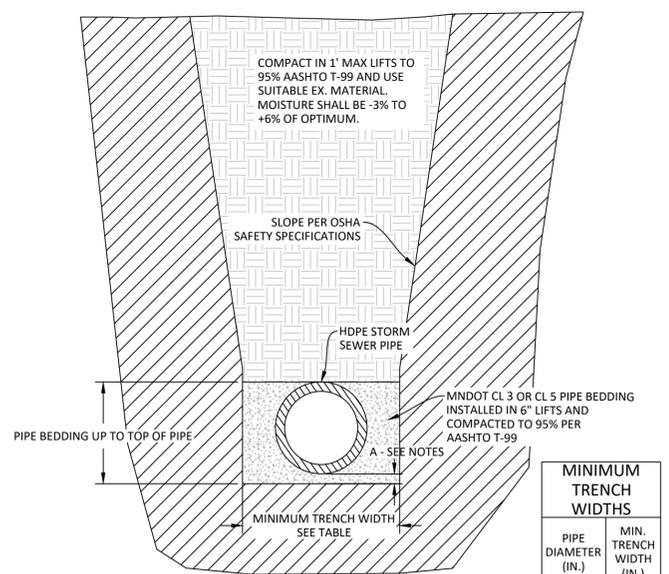
NOTE:  
1. STOP BOX TO BE INSTALLED ALONG SIDE OF TRENCH AND SUPPORTED TO THE TRENCH WALL WITH TWO WOODEN BRACES TO PROVIDE SUPPORT DURING BACKFILL.  
2. CURB STOP SHALL BE TYPICAL 6104 A.Y. MCDONALD OR APPROVED EQUAL.  
3. CORP. STOP SHALL BE TYPICAL 4701 A.Y. MCDONALD OR APPROVED EQUAL.  
4. TAPPING SADDLE SHALL BE ROMAC 306 STAINLESS STEEL WITH DOUBLE BOLT OR APPROVED EQUAL. BOLTS SHALL BE TIGHTENED TO MANUFACTURER'S SPECIFICATIONS WITH TORQUE WRENCH.

2 WATER SERVICE FOR NEW INSTALLATIONS  
N.T.S.



BOLTS TO BE TIGHTENED TO MANUFACTURER'S SPECS. WITH TORQUE WRENCH

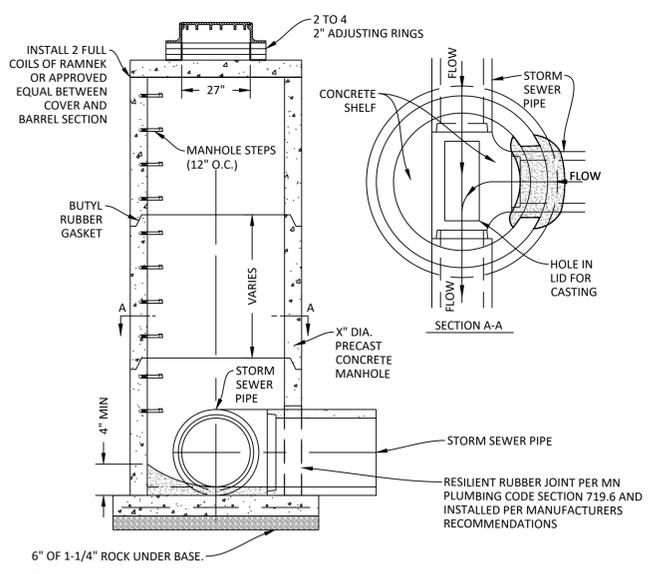
3 WATER MAIN TAPPING SADDLE  
N.T.S.



NOTES:  
1. BEDDING DEPTH BELOW PIPE (DIMENSION A ABOVE) SHALL BE 4" FOR 4"-36" PIPE AND 6" FOR 42"-60" PIPE.  
2. IN CLAY SOILS, LAST 3" OF PIPE MEASURED FROM BACK OF FLARED END SECTION TO BE BEDDED IN CLAY AND NOT CLASS 5 OR CLASS 3 TO PREVENT SCOUR.

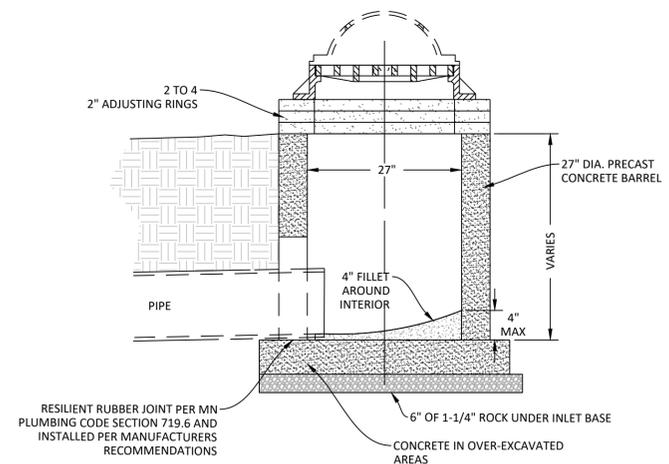
MINIMUM TRENCH WIDTHS	
PIPE DIAMETER (IN.)	MIN. TRENCH WIDTH (IN.)
4	21
6	23
8	26
10	28
12	30
15	34
18	39
24	47
30	56
36	63
42	72
48	80
60	96

4 HDPE PIPE CULVERT TRENCH BACKFILL  
N.T.S.



NOTE:  
1. ALL ROUND MANHOLES SHALL MEET REQUIREMENTS OF ASTM C478.  
2. LIFT HOLES TO BE MANUFACTURED WATER PROOF.  
3. BACKFILL AROUND MANHOLE IN 1' MAX LIFTS TO 95% PER AASHTO T-99. USE EXISTING MATERIAL UNLESS NOTED OTHERWISE. MOISTURE SHALL BE -3% TO +6% OF OPTIMUM.  
4. CASTING TYPE PER MANHOLE SCHEDULE.  
5. SOLID COVERS SHALL BE CAST WITH THE WORD "STORM" IN THE CENTER OF THE COVER IN LETTERS 2" HIGH. CONTRACTOR MAY USE CONCRETE OR HDPE RINGS. IF HDPE RINGS ARE UTILIZED, SILICONE SEAL SHALL BE USED IN BETWEEN RINGS PER MANUFACTURER RECOMMENDATIONS. IF CONCRETE RINGS ARE USED, GROUT SHALL BE USED BETWEEN, OUTSIDE, AND INSIDE OF RINGS. GROUT SHALL MEET REQUIREMENTS OF ASTM C270.  
6. REBAR AND WALL THICKNESS PER MANUFACTURER'S RECOMMENDATION.  
7. BUTYL RUBBER GASKET SHALL BE INSTALLED ON ALL JOINTS. GASKET SHALL MEET ASTM C443 REQUIREMENTS.  
8. DOGHOUSE TO BE CONCRETE INSIDE AND OUT WITH 3,000 PSI CONCRETE. CONCRETE SHALL BE VIBRATED AND TROWEL FINISHED.  
9. WHEN STRUCTURE IS INSTALLED IN THE CURB LINE, THE CONTRACTOR SHALL SET MANHOLE SO THAT BACK OF CASTING ALIGNS WITH CURB FLOW LINE.  
10. ALL ROUND MANHOLES/INLETS INSTALLED IN PAVEMENT SHALL HAVE A MINIMUM HEIGHT OF SIX (6) FEET FROM RIM TO BOTTOM OF STRUCTURE. IF LOWEST INVERT IS ABOVE THIS, CONTRACTOR SHALL FILL BOTTOM VOID WITH 4,000 PSI CONCRETE AND FORM INVERTS ACCORDINGLY.

5 ROUND STORM MANHOLE/INLET  
N.T.S.



RESILIENT RUBBER JOINT PER MN PLUMBING CODE SECTION 719.6 AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS

NOTE:  
1. ALL ROUND MANHOLES SHALL MEET REQUIREMENTS OF ASTM C478.  
2. LIFT HOLES TO BE MANUFACTURED WATER PROOF.  
3. BACKFILL AROUND MANHOLE IN 1' MAX LIFTS TO 95% PER AASHTO T-99. USE EXISTING MATERIAL UNLESS NOTED OTHERWISE. MOISTURE SHALL BE -3% TO +6% OF OPTIMUM.  
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6. REBAR AND WALL THICKNESS PER MANUFACTURER'S RECOMMENDATION.  
7. IF MANHOLE IS USED AS A CURB & GUTTER INLET, THE MANHOLE SHALL HAVE HOLE AVAILABLE FOR CONNECTION TO CURB & GUTTER DRAIN TILE AS REQUIRED.  
8. BUTYL RUBBER GASKET IS REQUIRED ON ALL JOINTS. GASKET SHALL MEET ASTM C443 REQUIREMENTS.  
9. DOGHOUSE TO BE CONCRETE INSIDE AND OUT WITH 3,000 PSI CONCRETE. CONCRETE SHALL BE VIBRATED AND TROWEL FINISHED.  
10. WHEN STRUCTURE IS INSTALLED IN THE CURB LINE, THE CONTRACTOR SHALL SET MANHOLE SO THAT BACK OF CASTING ALIGNS WITH CURB FLOW LINE.

6 27" YARD INLET  
N.T.S.

REVISIONS


7 BREW DRIVE-THRU COFFEE  
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BAXTER, MINNESOTA

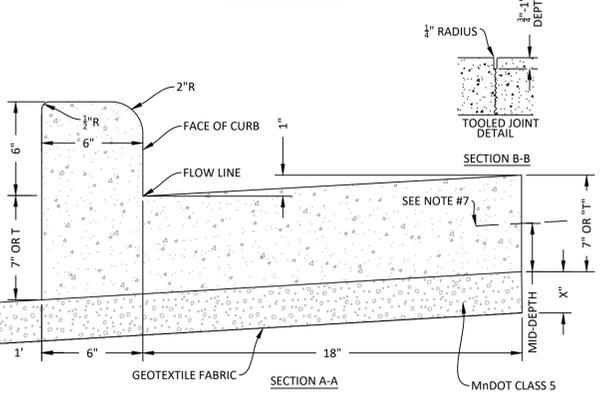
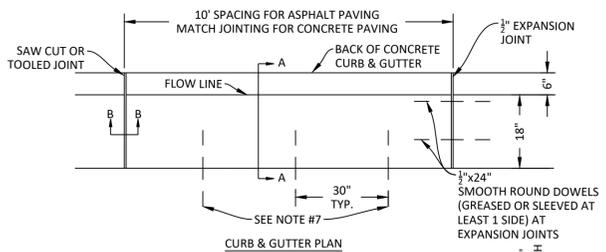
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DRAWN BY:	TJJ
APPROVED BY:	AJT

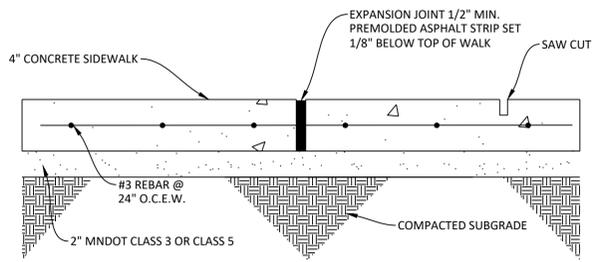
TYPICAL DETAILS

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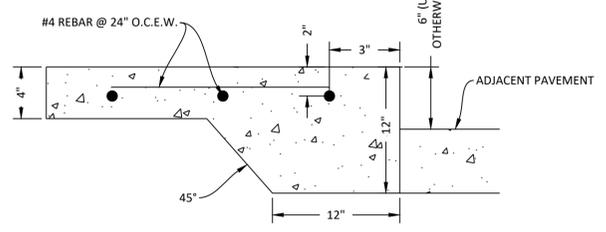
- NOTES:
- DIMENSION "T" SHALL MATCH THE THICKNESS OF THE ADJOINING CONCRETE SLAB WITH EITHER INTEGRAL OR SEPARATE CURB. CONTRACTOR SHALL INSTALL AS 7" OR T", WHICHEVER IS GREATER.
  - WHEN OUTFLOW CURB IS SPECIFIED, SLOPE SHALL BE 1/4" PER FOOT.
  - PROVIDE FULL DEPTH EXPANSION JOINT WITH 1/2" EXPANSION MATERIAL AT P.C.'S, HIGH POINTS, AND 60' INTERVALS FOR ASPHALT PAVING OR MATCH ADJACENT PAVEMENT IF CONCRETE.
  - PROVIDE 2 - 1/2" X 24" SMOOTH DOWELS AT ALL EXPANSION JOINTS AND CONSTRUCTION JOINTS.
  - WHITE CONCRETE CURING COMPOUND SHALL BE APPLIED PER MANUFACTURERS SPECIFICATIONS ON ALL EXTERIOR CONCRETE SURFACES.
  - CONCRETE SHALL BE 4,000 (OR HIGHER) PSI AND PER MNDOT SPECIFICATIONS.
  - WHEN ADJACENT PAVEMENT IS CONCRETE, CONTRACTOR SHALL INSTALL 18" - #4 REBAR @ 30" ON CENTER.

**1 HIGH BACK CURB & GUTTER - 24"**  
N.T.S.



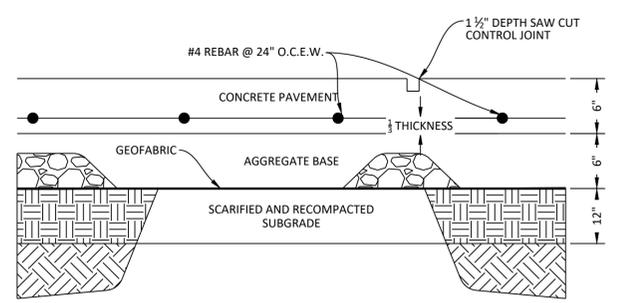
- NOTES:
- PROVIDE 1/2" EXPANSION MATERIAL AT EXISTING CONCRETE CONNECTIONS, BUILDINGS & DOOR OPENINGS, ADJACENT TO CURB & GUTTER AND CONCRETE WALK INTERSECTIONS.
  - PROVIDE FULL DEPTH EXPANSION JOINT WITH 1/2" EXPANSION MATERIAL AT 60' INTERVALS.
  - SAW CUT 1.25" DEEP AT 6' INTERVALS OR LESS TO APPROXIMATE SQUARE DESIGN.
  - PROVIDE 1/2" X 18" SMOOTH DOWELS AT 12" O.C. AT CONSTRUCTION JOINTS.
  - MAXIMUM CROSS SLOPE 2% FROM BUILDINGS, MAXIMUM LONGITUDINAL SLOPE 5%.
  - CONCRETE SHALL BE 4,000 OR HIGHER PSI AND MEET CITY OF BAXTER SPECIFICATIONS.

**2 SIDEWALK CROSS SECTION**  
N.T.S.



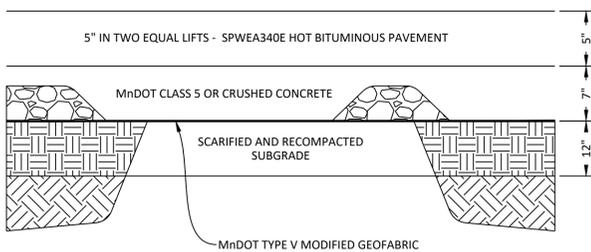
- NOTES:
- PROVIDE 1/2" EXPANSION MATERIAL AT EXISTING CONCRETE JOINTS, BUILDINGS & ADJACENT TO CURB AND GUTTER.
  - PROVIDE FULL DEPTH EXPANSION JOINT WITH 1/2" EXPANSION MATERIAL AT 60' INTERVALS.
  - SAW CUT 1" DEEP AT 6' INTERVALS OR LESS TO APPROXIMATE SQUARE DESIGN.
  - PROVIDE 2-1/2" SMOOTH DOWELS @ 24" O.C. AT EXPANSION JOINTS.
  - CONCRETE SHALL BE 4,000 (OR HIGHER) PSI AND PER CITY OF BAXTER SPECIFICATIONS.

**3 THICKENED EDGE SIDEWALK**  
N.T.S.



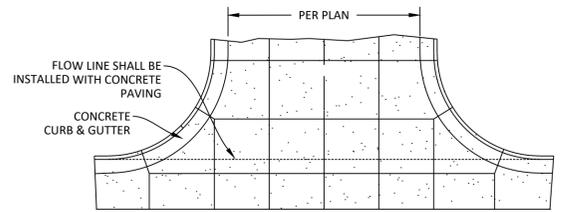
- NOTES:
- PROVIDE SAWCUT CONTROL JOINTS AT 12' MAXIMUM SPACING EACH WAY.
  - PROVIDE 18" - #4 REBAR @ 24" O.C. AT CONNECTION TO CURB & GUTTER, THICKENED EDGE SIDEWALK, EXISTING CONCRETE, AND CONSTRUCTION JOINTS.
  - WHITE CONCRETE CURING COMPOUND SHALL BE APPLIED PER MANUFACTURERS INSTRUCTIONS ON ALL EXTERIOR CONCRETE SURFACES.
  - PROVIDE 1/2" EXPANSION MATERIAL ADJACENT TO BUILDINGS AND ANY OTHER FIXED OBJECTS SUCH AS LIGHT POLE BASES, SIGN FOUNDATIONS, ETC. AND AT CONNECTIONS TO EXISTING CONCRETE.
  - MNDOT TYPE V MODIFIED FABRIC SHALL BE PLACED UNDER AGGREGATE BASE PER MNDOT SPECIFICATIONS.
  - REBAR SHALL BE SUPPORTED BY CHAIRS.

**4 REINFORCED CONCRETE CROSS SECTION**  
N.T.S.

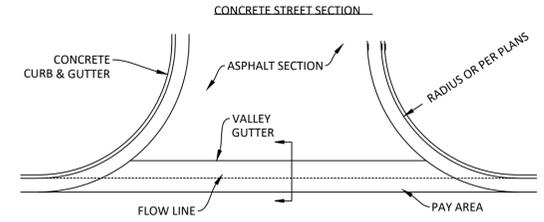


- NOTES:
- ASPHALT SHALL BE PLACED IN TWO EQUAL LIFTS.
  - ASPHALT MIX SHALL BE PER MNDOT STANDARD SPECIFICATIONS OR APPROVED EQUAL.
  - PG 58-28 OR APPROVED EQUAL SHALL BE USED.

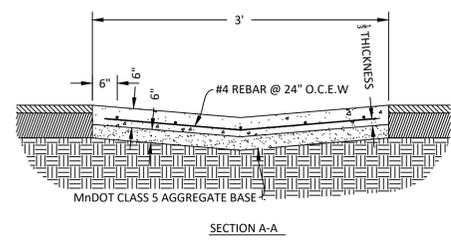
**5 ASPHALT CROSS SECTION**  
N.T.S.



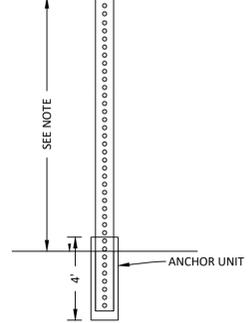
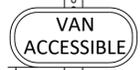
- NOTES:
- FLOW LINE TO ALIGN WITH FLOW LINE OF C&G
  - INSTALLATION OF FLOW LINE TO BE INCIDENTAL TO CONCRETE PAVING ITEM



- NOTES:
- VALLEY GUTTER TO BE REINFORCED WITH #4 REBAR @ 24" O.C.
  - FLOW LINE OF VALLEY GUTTER SHALL ALIGN WITH FLOW LINE OF CURB AND GUTTER.

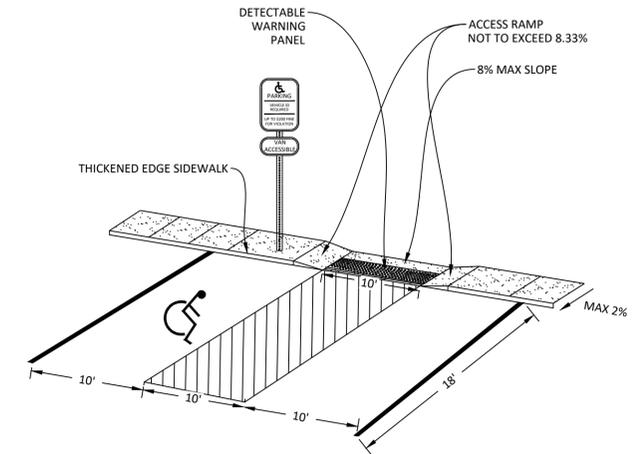


**6 VALLEY GUTTER**  
N.T.S.



- NOTE:
- VERIFY SIGNAGE WITH ALL STATE AND LOCAL CODES
  - USE 3/8" PLYWOOD ON BACK OF ALL SIGNS ATTACHED TO BUILDINGS
  - SIGNS MUST BE PLACED BETWEEN 60"-66" HIGH ABOVE THE GROUND MEASURED FROM THE PARKING SURFACE TO BOTTOM OF THE LOWEST SIGN
  - VERIFY AMOUNT OF FINE W/LOCAL AUTHORITY.
  - POST SHALL BE GALVANIZED TELESCOPING PERFORATED TUBE.

**7 ADA PARKING SIGN - VAN ACCESSIBLE\_MN**  
N.T.S.



**8 ADA RAMP**  
N.T.S.

REVISIONS

**7 BREW DRIVE-THRU COFFEE**  
**1050 HIGHWAY 210 WEST**  
**BAXTER, MINNESOTA**

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.

*Andrew J. Thill*  
ANDREW J. THILL  
DATE: 1/7/26  
LICENSE #: 51435

LE JOB #	25017.1
PROJECT DATE:	1/7/2026
CHECKED BY:	AJT
DRAWN BY:	TJJ
APPROVED BY:	AJT

TYPICAL DETAILS

