

DETAILS - SEE DETAIL SHEET 04 FOR THE FOLLOWING DETAILS CONCRETE CURB AND GUTTER CONCRETE CURB AND GUTTER WITH REVERSE FLOW "DRY CURB"

REGULAR DUTY PAVING

CONCRETE SIDEWALK SIDEWALK RAMPS

PAVING LEGEND

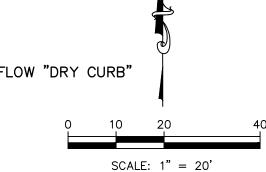
REGULAR DUTY PAVING

CONCRETE CURB AND GUTTER (001)

CONCRETE CURB AND GUTTER WITH REVERSE FLOW "DRY CURB" (002)

CONCRETE SIDEWALK

ACCESSIBLE STRIPING ACCESSIBLE PARKING SIGNAGE



ENTRY (SEE ARCH. PLANS)

WHITE PARKING LOT STRIPING (SHERWIN-WILLIAMS TM 2160 LEAD FREE OR APPROVED EQUAL)

BANK DRIVE THROUGH ISLAND (SEE ARCHITECTURAL PLANS) WATER METER PIT (SEE UTILITY PLAN)

SANITARY SEWER MANHOLE BY SEPARATE PLAN DOCUMENTS

SANITARY SEWER STRUCTURE (SEE UTILITY PLAN) HVAC ENCLOSURE (SEE ARCHITECTURAL PLANS)

TRANSFORMER PAD (SEE MEP PLANS)

ELECTRICAL APPARATUS (SEE MEP PLANS)

CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRANCE, SLOPED PAVING, EXIT PORCHES, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.

2. THESE PLANS HAVE <u>NOT</u> BEEN VERIFIED WITH FINAL ARCHITECTURAL CONTRACT DRAWINGS. CONTRACTOR SHALL VERIFY AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES. CONTRACTOR IS FULLY RESPONSIBLE FOR REVIEW AND COORDINATION OF ALL DRAWINGS AND CONTRACTOR DOCUMENTS.

3. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS NOTED OTHERWISE.

4. ALL DIMENSIONS ARE PERPENDICULAR TO PROPERTY LINE.

5. ACTUAL SIGN LOCATIONS TO BE COORDINATED WITH CONSTRUCTION

CONSTRUCTION NOTES:

1. COORDINATE START-UP AND ALL CONSTRUCTION ACTIVITIES WITH OWNER.

2. CONSTRUCTION METHODS AND MATERIALS NOT SPECIFIED IN THESE PLANS ARE TO MEET OR EXCEED THE CITY OF HAYS STANDARD SPECIFICATIONS.

3. ALL CONSTRUCTION WORK AND UTILITY WORK OUTSIDE OF PROPERTY BOUNDARIES SHALL BE PERFORMED IN COOPERATION WITH AND IN ACCORDANCE WITH REGULATIONS OF THE AUTHORITIES CONCERNED.

4. PUBLIC CONVENIENCE AND SAFETY: THE CONTRACTOR SHALL CONDUCT THE WORK IN A MANNER THAT WILL INSURE, AS FAR AS PRACTICABLE, THE LEAST OBSTRUCTION TO TRAFFIC, AND SHALL PROVIDE FOR THE CONVENIENCE AND SAFETY OF THE GENERAL PUBLIC AND RESIDENTS ALONG AND ADJACENT TO HIGHWAYS IN THE CONSTRUCTION AREA.

5. ONE IN EIGHT ACCESSIBLE PARKING STALLS MUST HAVE A SIGN DESIGNATING "VAN-ACCESSIBLE". SEE DETAIL 102 AND 120.

6. ALL TRAFFIC CONTROL DEVICES, INSTALLATION AND OPERATIONS SHALL CONFORM WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

7. PAINT FOR STRIPING ON PUBLIC STREETS, HIGHWAYS AND ENTRANCES SHALL BE REFLECTORIZED PAINT CONFORMING TO THE SPECIFICATIONS OR REQUIREMENTS OF THE AUTHORITY GOVERNING THE STREET OR HIGHWAY.

8. CONTRACTOR TO REFERENCE ARCHITECTURAL PLANS FOR SIDEWALK DRAIN LOCATIONS AND DETAILS FOR BUILDING DOWNSPOUT.

9. COORDINATE CONSTRUCTION WITH ADMINISTRATION AND OPERATIONS BUILDING.

SAFETY NOTICE TO CONTRACTOR

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

WARRANTY / DISCLAIMER

THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER KAW VALLEY ENGINEERING, INC NOR ITS PERSONNEL, CAN OR DO WARRANT THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC CASES WHERE KAW VALLEY ENGINEERING PERSONNEL INSPECT AND CONTROL THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

CAUTION - NOTICE TO CONTRACTOR

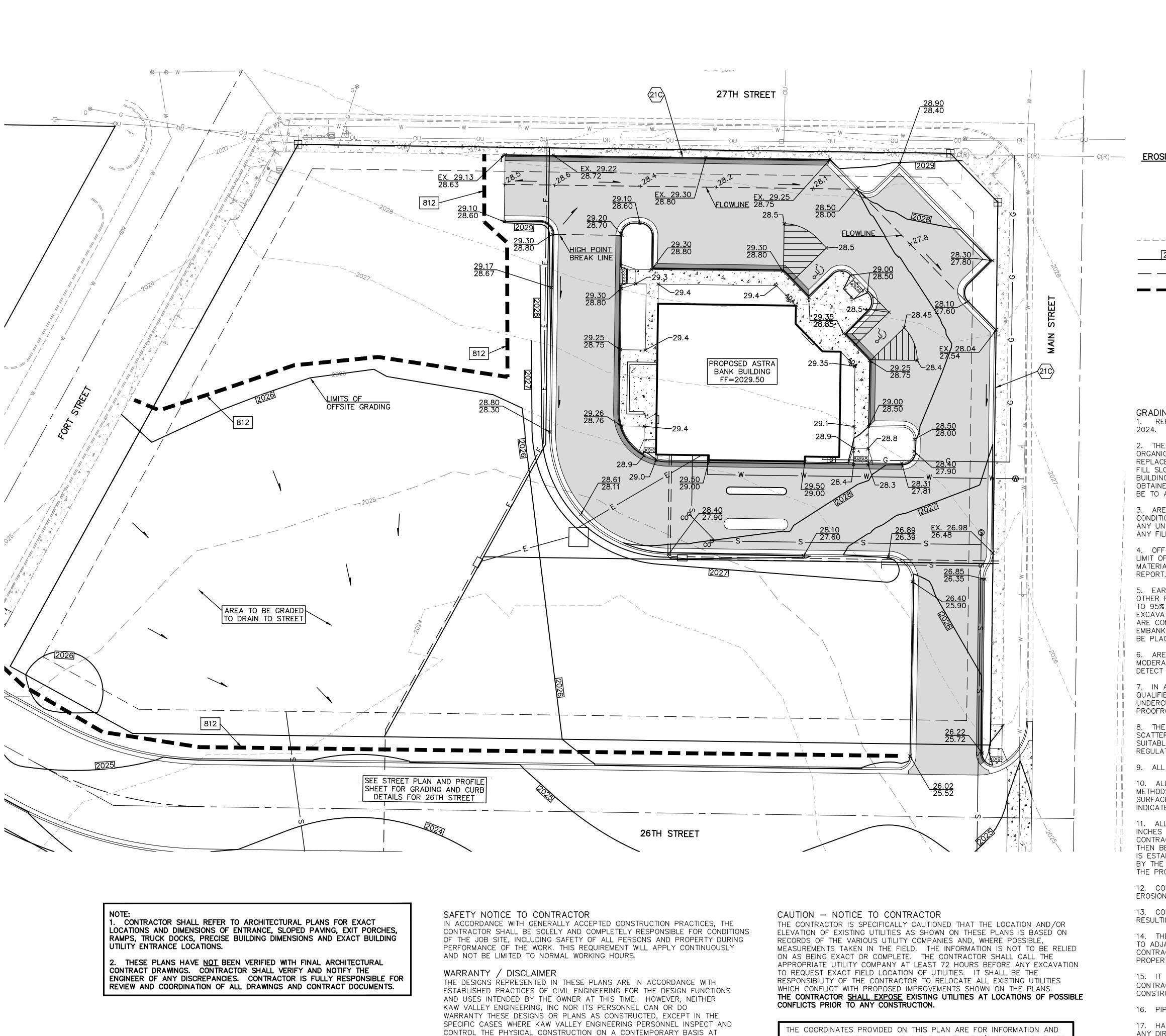
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.

MATTHEW J. ROWE ENGINEER KS # 29241

ASTRA BANK
27TH, FORT, AND N
HAYS, KANSAS 676
CIVIL PLANS
SITE AND DIMENSI

DESIGNER | DRAWN BY **3733SP-1**SHEET

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.



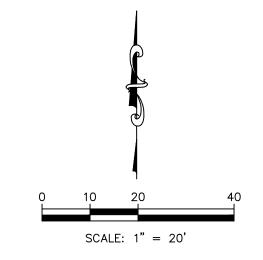
THE COORDINATES PROVIDED ON THIS PLAN ARE FOR INFORMATION AND CHECKING PURPOSES ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALCULATE CONSTRUCTION STAKING COORDINATES ACCORDING TO THE DIMENSIONS SHOWN ON THESE PLANS. CONTRACTOR SHALL VERIFY THE ACCURACY OF THE COORDINATES SHOWN HEREON BEFORE CONSTRUCTION.

DETAILS — SEE DETAIL SHEET 05 FOR THE FOLLOWING DETAILS

812 SEDIMENTATION FENCE

NOTES:

21C MATCH EXISTING PAVEMENT ELEVATIONS



#### EROSION & PROPOSED IMPROVEMENTS LEGEND:

82.95 SPOT ELEVATION (ADD 2000), X TOP OF PAVEMENT

83.65 TOP OF CURB (ADD 2000) 83.15 FLOWLINE OF CURB (ADD 2000)

- FLOW DIRECTION

---- 2028--- EXISTING GROUND CONTOUR (1' INTERVALS)

[2028] PROPOSED FINISHED GROUND CONTOUR (1' INTERVALS)

— — — DRAINAGE FLOWLINE

- SEDIMENTATION FENCE

IF DISCREPANCIES EXIST BETWEEN THE GRADING NOTES BELOW AND THE RECOMMENDATIONS OUTLINED IN THE PROJECT GEOTECHNICAL REPORT, THE RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL REPORT SHALL GOVERN.

GRADING NOTES:

1. REFERENCE GEOTECHNICAL PROJECT REPORT COMPLETED BY GSI ENGINEERING. DATED, JUNE 7,

2. THE CONSTRUCTION AREA SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL AND ORGANIC MATTER FROM ALL AREAS TO BE OCCUPIED BY BUILDING AND PAVING. TOPSOIL FOR REPLACEMENT ON SLOPES MAY BE STOCKPILED ON SITE. EXCESS TOPSOIL MAY BE WASTED IN FILL SLOPES PROVIDED THAT NO TOPSOIL WILL BE WASTED WITHIN 10 FEET OF THE EDGE OF THE BUILDING OR PARKING AREA. BURNING OF TIMBER WILL NOT BE PERMITTED UNLESS APPROVAL IS OBTAINED FROM GOVERNING OFFICIALS. STRIPPING EXISTING TOPSOIL AND ORGANIC MATTER SHALL BE TO A MINIMUM DEPTH OF 6 INCHES.

3. AREAS TO RECEIVE FILL SHALL BE SCARIFIED AND THE TOP 9-INCH DEPTH MOISTURE CONDITIONED AND COMPACTED TO 95% STANDARD PROCTOR DENSITY PER GEOTECHNICAL REPORT ANY UNSUITABLE AREAS SHALL BE UNDERCUT AND REPLACED WITH SUITABLE MATERIAL BEFORE ANY FILL MATERIAL CAN BE APPLIED.

4. OFF-SITE FILL MATERIAL SHALL HAVE A PLASTICITY INDEX BETWEEN 10 AND 20, A LIQUID LIMIT OF 40 OR LESS AND CONTAIN NO ROCK LARGER THAN THREE INCHES. OFF-SITE FILL MATERIAL SHALL BE APPROVED BY THE OWNER PRIOR TO BRINGING ON SITE. REFER TO GEOTECH

5. EARTHWORK UNDER THE BUILDING SHALL COMPLY WITH THE PROJECT ARCHITECTURAL PLANS. OTHER FILL MATERIAL SHALL BE MADE IN LIFTS NOT TO EXCEED EIGHT INCHES DEPTH COMPACTED TO 95% STANDARD PROCTOR DENSITY. FILL MATERIAL MAY INCLUDE ROCK FROM ON—SITE EXCAVATION IF CAREFULLY PLACED SO THAT LARGE STONES ARE WELL DISTRIBUTED AND VOIDS ARE COMPLETELY FILLED WITH SMALLER STONES, EARTH, SAND OR GRAVEL TO FURNISH A SOLID EMBANKMENT. NO ROCK LARGER THAN THREE INCHES IN ANY DIMENSION NOR ANY SHALE SHALL BE PLACED IN THE TOP 12 INCHES OF EMBANKMENT.

6. AREAS THAT ARE TO BE CUT TO SUBGRADE LEVELS SHALL BE PROOF ROLLED WITH A MODERATELY HEAVY LOADED DUMP TRUCK OR SIMILAR APPROVED CONSTRUCTION EQUIPMENT TO DETECT UNSUITABLE SOIL CONDITIONS.

| 7. IN ALL AREAS OF EXCAVATION, IF UNSUITABLE SOIL CONDITIONS ARE ENCOUNTERED, A
| QUALIFIED GEOTECHNICAL ENGINEER SHALL RECOMMEND TO THE OWNER THE METHODS OF
| UNDERCUTTING AND REPLACEMENT OF PROPERLY COMPACTED, APPROVED FILL MATERIAL. ALL
| PROOFROLLING AND UNDERCUTTING SHOULD BE PERFORMED DURING A PERIOD OF DRY WEATHER.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.

 $\parallel$  9. ALL SLOPES ARE TO BE 3:1 OR FLATTER UNLESS OTHERWISE INDICATED.

10. ALL SLOPES EXCEEDING 3:1 SHALL BE PROTECTED BY RIP RAP, CONCRETE PAVING, OR OTHER METHODS INDICATED ON THESE PLANS, THAT WILL PREVENT EROSION AND PLACED SUCH THAT THE SURFACE IS FLUSH WITH SURROUNDING GROUND AND SHAPED TO CHANNEL WATER IN DIRECTIONS INDICATED.

11. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH AND FOUR INCHES OF TOPSOIL APPLIED. IF ADEQUATE TOPSOIL IS NOT AVAILABLE ON—SITE, THE CONTRACTOR SHALL PROVIDE TOPSOIL, APPROVED BY THE OWNER, AS NEEDED. THE AREA SHALL THEN BE SEEDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.

12. CONTRACTOR SHALL USE SILT FENCE, BALES OF HAY OR OTHER MEANS OF CONTROLLING EROSION ALONG THE EDGE OF THE PROPERTY OR OTHER BOTTOM OF SLOPE LOCATIONS.

13. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS.

14. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.

15. IT IS NOT THE DUTY OF THE ENGINEER OR THE OWNER TO REVIEW THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE AT ANY TIME DURING CONSTRUCTION.

16. PIPE LENGTHS ARE CENTER TO CENTER OF STRUCTURE OR TO END OF END SECTIONS.

17. HANDICAP STALLS SHALL MEET ADA REQUIREMENTS AND SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION AT THE BUILDING ENTRY AND ACCESSIBLE PARKING STALLS. SLOPES EXCEEDING 2.0% WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

18. SIDEWALKS SHALL MEET ADA REQUIREMENTS AND NOT EXCEED 2% CROSS SLOPE OR 5% RUNNING SLOPE.

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MATTHEW J. ROWE ENGINEER KS # 29241

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sa@kveng.com | www.kveng.com

WALLEY ENGINEERING
INC., IS AUTHORIZED TO OFFER ENGINEERIN

KAW VALLEY ENGINEERING, INC., IS SERVICES BY KANSAS STATE CERTIF

ASTRA BANK
27TH, FORT, AND MAIN STREET
HAYS, KANSAS 67601
CIVIL PLANS
GRADING AND EROSION CONITED. 7. ...

PROJ. NO.

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DESIGNER DRAWN B

MJR TD

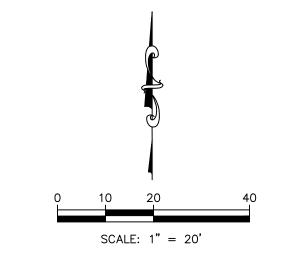
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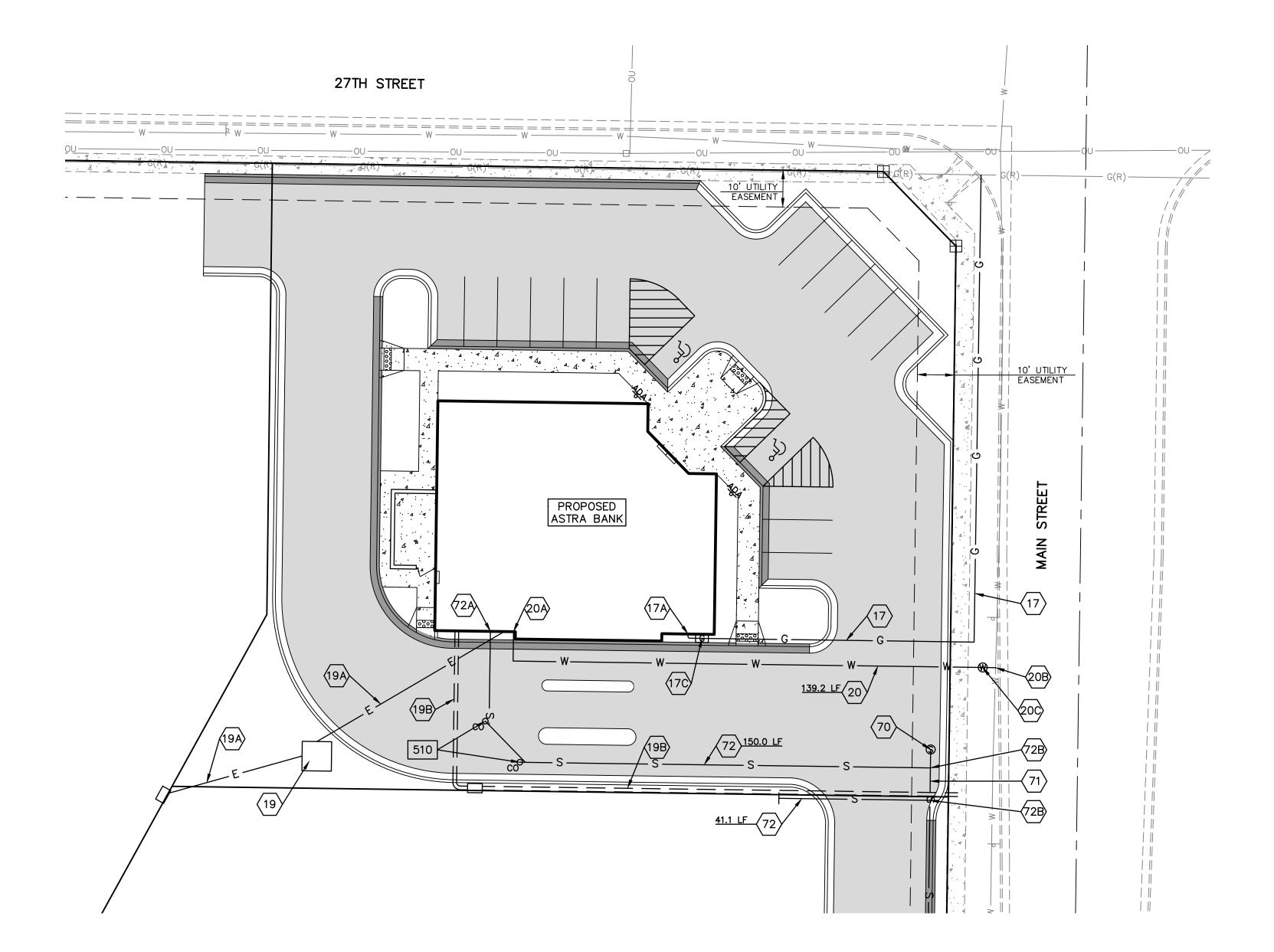
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SHEET RE

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THE SITE.





SAFETY NOTICE TO CONTRACTOR IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

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THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS

PRIOR TO ANY CONSTRUCTION.

UTILITY CONTACT

GAS SERVICE MIDWEST ENERGY, INC. 600 EAST 11TH STREET HAYS, KANSAS 67601 CONTACT: ARLEN FLAX PHONE: 785-650-2594 EMAIL: aflax@mwenergy.com DETAILS - SEE DETAIL SHEET 04 FOR THE FOLLOWING DETAILS

510 CLEAN-OUT

- GAS LINE INSTALLED BY UTILITY PROVIDER. CONTRACTOR TO COORDINATE WITH MIDWEST ENERGY, SEE CONTACT INFORMATION THIS SHEET. CONTRACTOR IS RESPONSIBLE FOR ALL GAS LINE COSTS AND FEES.
- POINT OF CONNECTION TO GAS SERVICE. REFER TO MEP PLANS.
- GAS SERVICE. REFER TO MEP PLANS
- GAS METER, REGULATOR AND SHUT-OFF VALVE. COORDINATE RESPONSIBILITIES WITH MIDWEST ENERGY AND PAY ALL FEES. REFER TO MEP PLANS. GROUND MOUNT ELECTRICAL PAD. REFER TO MEP PLANS.
- UNDERGROUND ELECTRIC LINE. REFER TO MEP PLANS FOR LOCATION AND DETAILS
- PVC WATER SERVICE LINE. REFER TO MEP PLANS FOR SIZE. (MINIMUM BURIAL
- DOMESTIC WATER SERVICE CONNECTION TO BUILDING (SEE MEP PLANS) CONNECT PROPOSED DOMESTIC WATER SERVICE LINE TO EXISTING WATER MAIN USING TAPPING SLEEVE AND VALVE. CONTRACTOR TO COORDINATE TAP WITH THE
- WATER METER AND PIT. CONTRACTOR TO COORDINATE TAP AND METER WITH THE CITY. CONTRACTOR IS TO INCUR ANY AND ALL COSTS ASSOCIATED WITH WATER
- METER AND TAP. VERIFY WITH CITY OF HAYS. SANITARY SEWER MANHOLE (BY SEPARATE PLAN DOCUMENTS)
- SANITARY SEWER MAIN LINE (BY SEPARATE PLAN DOCUMENTS)
- 4" SANITARY SEWER SERVICE LINE, PVC SDR 26 AT MINIMUM 2% SLOPE. SANITARY SEWER SERVICE CONNECTION TO BUILDING (SEE MEP PLANS)
- POINT OF CONNECTION TO SANITARY SEWER MAIN (SEE SANITARY SEWER PLAN

AND PROFILE SHEETS ON SEPARATE PLAN DOCUMENTS)

 CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRANCE, SLOPED PAVING, EXIT PORCHES, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.

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UTILITY NOTES: 1. CONSTRUCTION SHALL NOT START ON ANY PUBLIC WATER OR SANITARY SEWER SYSTEM UNTIL WRITTEN APPROVAL OR PERMITS HAVE BEEN RECEIVED FROM THE OWNER.

2. ALL UTILITY AND STORM SEWER TRENCHES CONSTRUCTED UNDER AREAS THAT RECEIVE PAVING SHALL BE BACKFILLED TO 18 INCHES ABOVE THE TOP OF THE PIPE WITH SELECT GRANULAR MATERIAL PLACED ON EIGHT-INCH LIFTS, AND COMPACTED TO 95% MODIFIED PROCTOR DENSITY.

CONTRACTOR SHALL NOT OPEN, TURN OFF, INTERFERE WITH, OR ATTACH ANY PIPE OR HOSE TO OR TAP ANY WATER MAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCE OF ANY SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE LIABILITY OF THE CONTRACTOR. KAW VALLEY ENGINEERING AND OWNER ARE TO BE HELD HARMLESS.

4. DISINFECTION AND PRESSURE TESTING OF WATER LINES SHALL BE PERFORMED AND PAID FOR BY THE CONTRACTOR UNDER SUPERVISION OF A REPRESENTATIVE OF THE CITY WATER DEPARTMENT. CONTRACTOR SHALL NOTIFY THE CITY OF HAYS WATER DEPARTMENT 24 HOURS MINIMUM, PRIOR TO ANY TESTING.

5. ALL WATER AND SANITARY SEWER SYSTEMS THAT ARE TO BE PUBLIC LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATIONS PREVIOUSLY APPROVED BY THE CITY OF HAYS AND THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT AND SHALL BE INSPECTED BY THE CITY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT THIS INSPECTION OCCURS.

6. LOCATIONS SHOWN FOR PROPOSED WATER LINES ARE APPROXIMATE. VARIATIONS MAY BE MADE, WITH APPROVAL OF THE ENGINEER, TO AVOID CONFLICTS.

7. CONTRACTOR TO INSTALL TRACING WIRE ALONG ALL NON-METALLIC WATER MAINS AND SERVICE LINES PER SPECIFICATIONS.

8. CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF NEW UTILITIES. 9. WATER LINES SHALL HAVE A MINIMUM COVER OF 42 INCHES. ALL VALVES ON MAINS AND FIRE

HYDRANT LEADS SHALL BE WITH VALVE BOX ASSEMBLIES. THE SIZE OF VALVE BOX ASSEMBLY TO BE INSTALLED IS DETERMINED BY THE TYPE AND SIZE OF VALVE. VALVE BOX CAPS SHALL HAVE THE WORD "WATER".

10. A MINIMUM HORIZONTAL DISTANCE OF 10 FEET SHALL BE MAINTAINED BETWEEN PARALLEL WATER (MAINS AND SERVICE) AND GRAVITY SANITARY SEWER (MAINS AND SERVICE) LINES. WHEN IT IS NECESSARY FOR ANY WATER LINE TO CROSS A GRAVITY SANITARY SEWER LINE, THE SEWER LINE SHALL BE ENCASED IN CONCRETE OR CONSTRUCTED OF DUCTILE IRON PIPE OR PVC PIPE WITH NO JOINTS WITHIN 10 FEET OF THE CROSSING UNLESS THE WATER LINE IS AT LEAST 2 FEET CLEAR DISTANCE ABOVE THE GRAVITY SANITARY SEWER LINE.

11. WHERE A WATER LINE (SERVICE LINE) CROSSES A NEW (EXISTING) FORCE MAIN (FORCE SERVICE LINE), THE WATER LINE (SERVICE LINE) MUST ALWAYS CROSS OVER THE FORCE MAIN (FORCE SERVICE LINE) WITH A MINIMUM VERTICAL SEPARATION DISTANCE OF 2 FEET. FORCE SEWER LINE (FORCE SERVICE LINE) JOINTS ARE TO BE LOCATED AS FAR AS POSSIBLE FROM THE INTERSECTED WATER LINE.

12. CONTRACTOR TO COORDINATE WITH OWNER AND ARCHITECT FOR SITE LIGHTING.

13. CONTRACTOR IS RESPONSIBLE FOR ALL FEES/COSTS ASSOCIATED WITH THE ELECTRIC, GAS, WATER, AND SANITARY SEWER LINES.

14. REFER TO MEP PLANS FOR ELECTRICAL PLAN.

**UNDERGROUND UTILITY STATEMENT:** 

THE UNDERGROUND UTILITIES SHOWN HEREON ARE DEPICTED FROM FIELD SURVEY INFORMATION OF ONE-CALL LOCATED UTILITIES AND/OR THE SCALING AND PLOTTING OF EXISTING UTILITY MAPS AND DRAWINGS MADE AVAILABLE TO THE SURVEYOR AT THE TIME OF SURVEY. THE SURVEYOR DOES NOT CERTIFY THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL UNDERGROUND UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHERMORE, THE SURVEYOR DOES NOT CERTIFY THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION DEPICTED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE FROM INFORMATION MADE AVAILABLE TO THE SURVEYOR AT THE TIME OF SURVEY. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES SHOWN HEREON BY EXCAVATION UNLESS OTHERWISE NOTED ON THIS SURVEY.

29241

MATTHEW J. ROWE ENGINEER KS # 29241

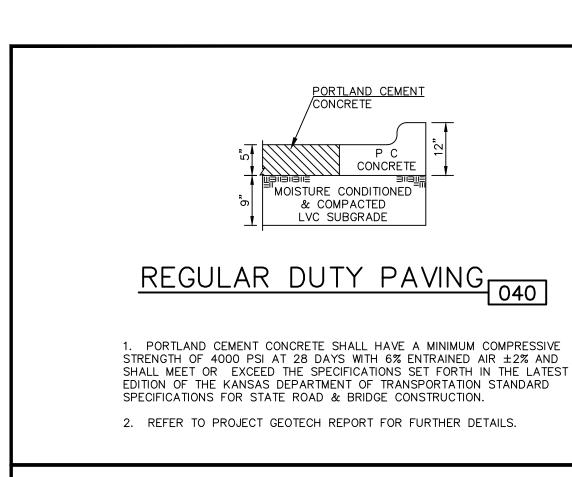
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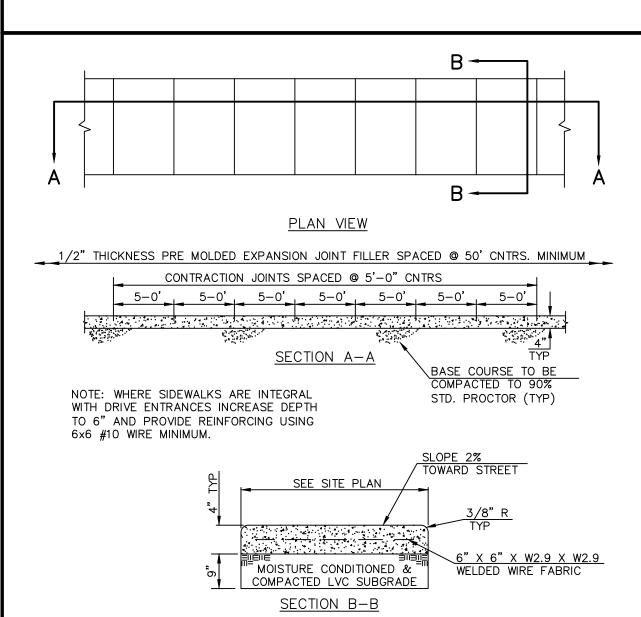
ASTRA BANK
27TH, FORT, AND N
HAYS, KANSAS 676
CIVIL PLANS

DESIGNER DRAWN B

**3733UP-1**SHEET

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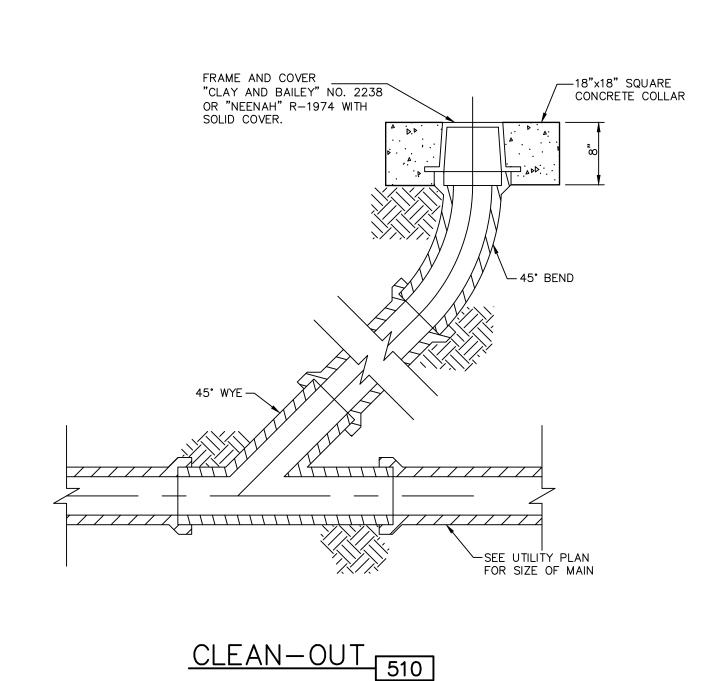


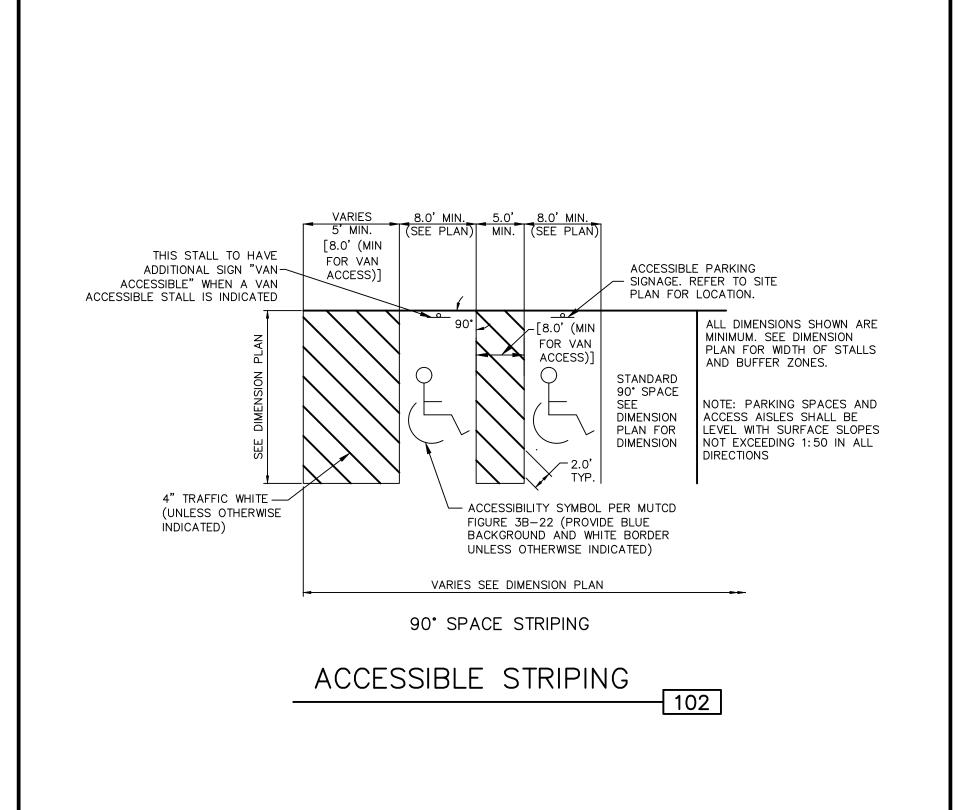


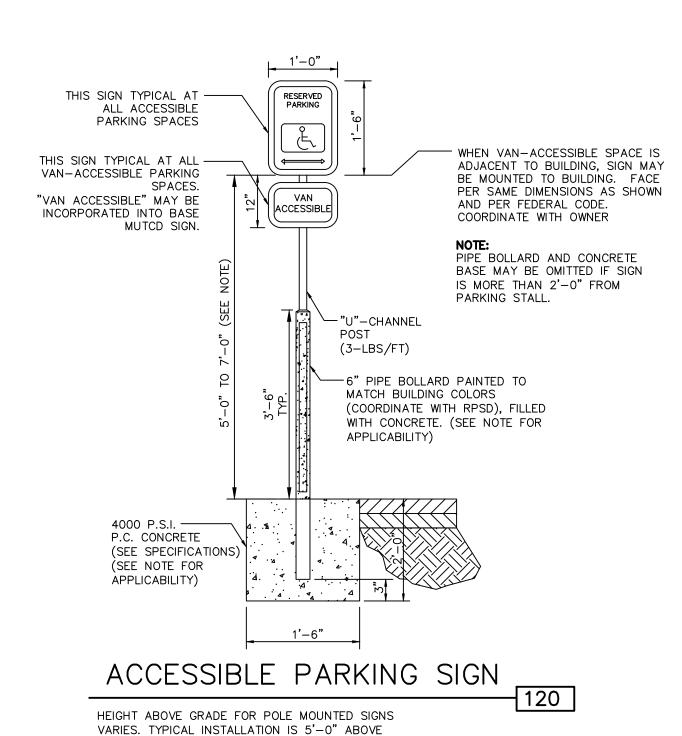
CONCRETE SIDEWALK 055

NOTE: CONCRETE SHALL BE CLASS A WITH

f'c = 3000 PSI.

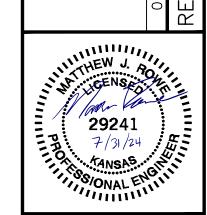






GRADE. SIGN SHALL BE MOUNTED AT 7'-0" IF IT

FALLS WITHIN A WALKING PATH.



MATTHEW J. ROWE **ENGINEER** 

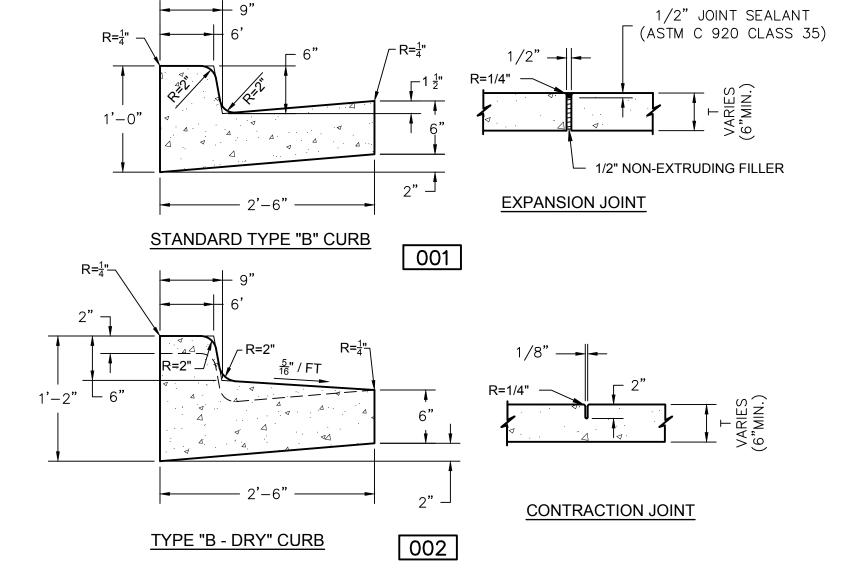
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ENGINEERING

TRA BANK TH, FORT, AND IN YS, KANSAS 676

E24D3733
DESIGNER DRAWN BY **3733TYP-1**SHEET

(ASTM C 920 CLASS 35) 1/2" NON-EXTRUDING FILLER DETECTABLE WARNING SURFACE PATTERN



1. IN TRANSITIONS, WATER SHALL FLOW FROM THE GUTTER OF TYPE "B" CURB TO THE LIP OF TYPE "B - DRY" CURB AT 0.5% MIN.

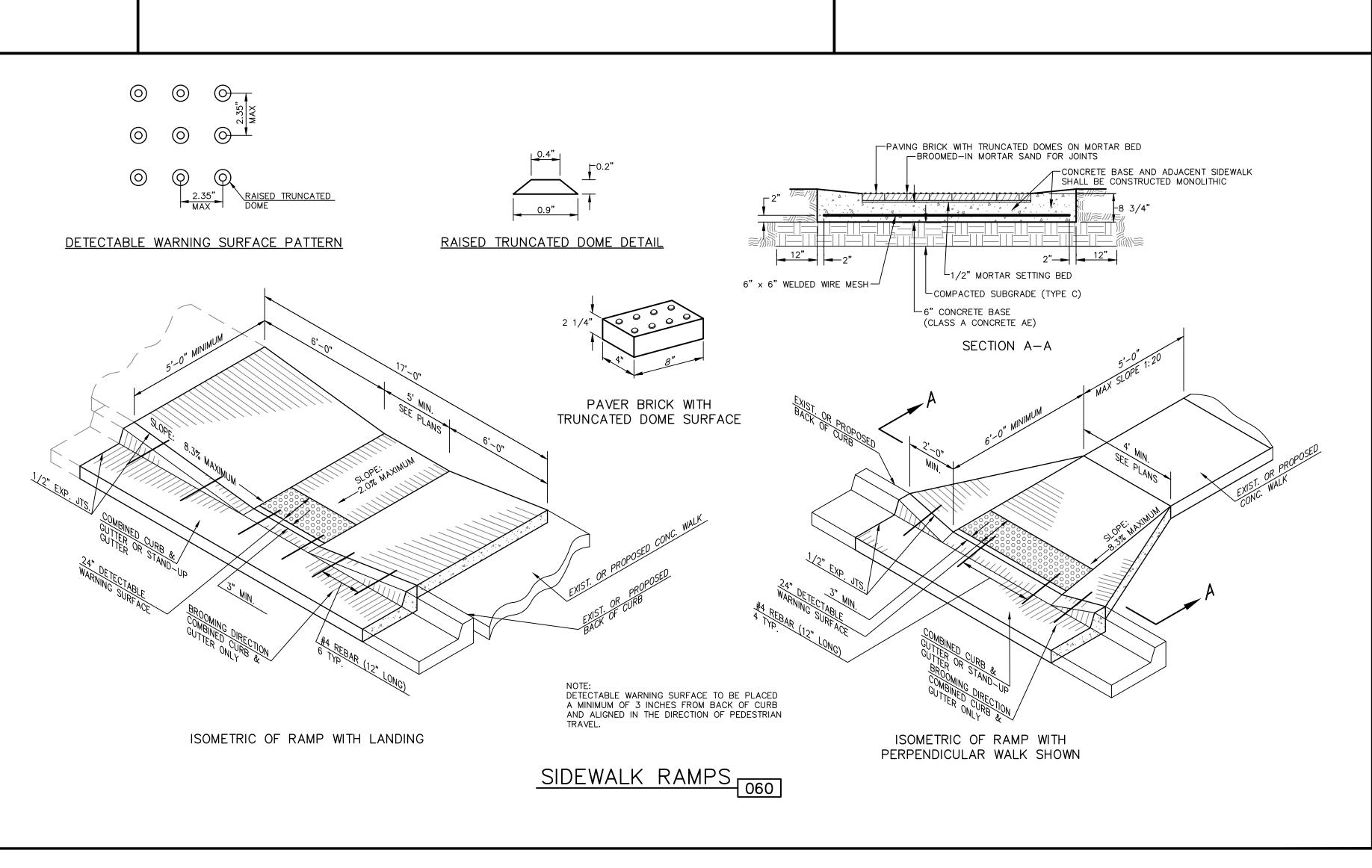
2. GUTTER SLOPE IN HANDICAP ACCESSIBLE STALLS AND ACCESS AISLES SHALL NOT EXCEED 2.0%.

TYPE "B" CURB & GUTTER NOTES;

1. ½" PREMOLDED EXPANSION JOINTS SHALL BE PLACED AT POINTS OF CURVATURE, CURB RETURNS, CURB INLETS AND AT 250' CENTERS. THE EXPANSION JOINTS SHALL BE DOWELED IN ACCORDANCE WITH THE SPECIFICATIONS. CONTRACTION JOINTS SHALL BE 2" DEEP AND PLACED AT 15' INTERVALS EQUALLY SPACED BETWEEN EXPANSION JOINTS.

- 2. PORTLAND CEMENT CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS WITH 6% ENTRAINED AIR ±2% AND SHALL MEET OR EXCEED THE KANSAS DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
- 3. SEE SIDEWALK RAMP DETAILS FOR TYPICAL SIDEWALK RAMP CURB & GUTTER SECTIONS.
- 4. DETAILS AS SHOWN FOR CONCRETE AND ASPHALT PAVING. WHEN USED WITH CONCRETE PAVING POURED MONOLITHICALLY WITH CURB NO MODIFICATIONS ARE REQUIRED. WHEN CURB AND CONCRETE PAVING ARE TO BE POURED SEPARATELY #4 BARS, 24" LONG ARE TO BE PROVIDED TO TIE CURB TOGETHER WITH CONCRETE PAVING.
- 5. ALL REINFORCING SHALL BE 60 ksi EPOXY COATED DEFORMED BARS.
- 6. CURBS TO BE CONSTRUCTED ON MINIMUM 6 INCHES OF COMPACTED WELL GRADED BASE ROCK.





#### GENERAL NOTES:

1. PROPERTY LINE IS LIMITS OF CONSTRUCTION EXCEPT AS SHOWN.

2. THE CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE DRAWINGS PRIOR TO BEGINNING EARTHWORK OPERATIONS.

- 3. THE CONTRACTOR SHALL MAINTAIN ALL SILT CONTROL MEASURES DURING CONSTRUCTION.
- 4. ALL SILT SHALL REMAIN ON SITE AND SURROUNDING STREETS SHALL BE KEPT CLEAR OF ALL MUD AND DEBRIS.
- 5. A SEDIMENTATION BARRIER IS TO BE INSTALLED AS SHOWN.

6. ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE SEDIMENTATION BARRIERS MAINTAINED AS NEEDED TO PREVENT SEDIMENTATION BYPASS OF THE BARRIER.

7. SLOPES ARE TO BE LEFT IN A ROUGH CONDITION DURING GRADING.

8. CURB INLET SEDIMENTATION BARRIERS ARE TO BE INSTALLED AROUND INLETS AND WEIRS WHERE SEDIMENTATION IS A CONCERN. INLET BARRIERS SHALL BE EITHER BLOCK AND GRAVEL, OR SECURED STRAW BALES, OR SILT FENCE.

- 9. SEDIMENT IS TO BE REMOVED FROM STORM WATER DRAINAGE SYSTEMS.
- 10. RIPRAP IS TO BE INSTALLED AT AREAS OF CONCENTRATED FLOW (I.E. CULVERT OUTLETS).
- 11. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ANY ADDITIONAL EROSION CONTROL AS HE/SHE DEEMS NECESSARY.

12. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, TOOLS, EQUIPMENT AND LABOR AS NECESSARY TO INSTALL AND MAINTAIN ADEQUATE EROSION AND SILTATION CONTROLS REQUIRED TO PREVENT SOIL EROSION FROM LEAVING THE PROJECT SITE. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE THAT METHODS UTILIZED ARE ADEQUATE AND COMPLY WITH REQUIREMENTS OF THE SPECIFICATIONS AND GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.

- 13. TEMPORARY SEDIMENT FENCE/STRAW BALES TO REMAIN UNTIL ADEQUATE VEGETATION IS ESTABLISHED.
- 14. MUD AND DEBRIS SHALL BE CLEANED UP AT THE CONCLUSION OF EACH WORKING DAY, OR AFTER EACH RAINFALL IF SILT IS PRESENT.

15. INSPECTION, MAINTENANCE AND REPAIR OF EROSION CONTROL DEVICES SHALL BE ON GOING THROUGHOUT THE LIFE OF BUILDING CONSTRUCTION TO KEEP THE DEVICES IN OPERABLE CONDITION AT ALL TIMES. ADDITIONAL MEASURES SHALL BE INSTALLED AS REQUIRED BY ACTUAL FIELD CONDITIONS AND/OR GOVERNING INSPECTION AGENCIES.

16. INSTALL CONSTRUCTION ENTRANCE AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING THE SITE AND AS SHOWN ON PLANS.

- 17. AT COMPLETION OF SITE GRADING AND OTHER RELATED CONSTRUCTION ACTIVITIES, ALL DISTURBED AREAS WITHIN THE PROJECT SITE SHALL BE SEEDED USING MULCH OR EQUIVALENT STABILIZING BMP, SODDED, OR LANDSCAPED WITHIN 14 DAYS.
- 18. TOPSOIL IS TO BE PLACED IN AREAS UNSUITABLE FOR VEGETATIVE GROWTH.
- 19. STRIP TOPSOIL PRIOR TO EXCAVATION, STOCKPILE AND SPREAD ONTO DISKED SUBGRADE (6" MIN) A THICKNESS OF 6 INCHES. REFER TO GEOTECH REPORT.

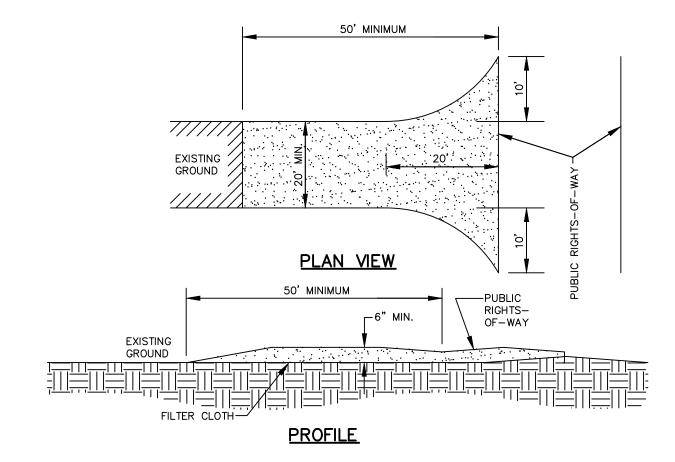
20. ROCK LINING (RIPRAP) SHALL BE DURABLE STONE CONTAINING A COMBINED TOTAL OF NOT MORE THAN 10 PERCENT OF EARTH, SAND, SHALE AND NON—DURABLE ROCK. AT LEAST 60 PERCENT OF THE MASS SHALL BE OF PIECES HAVING A MINIMUM WEIGHT OF 150 POUNDS OR MORE PER CUBIC FOOT.

21. THE CONTRACTOR SHALL HAVE THE RESPONSIBILITY FOR RESOLVING COMPLAINTS IN THE EVENT THAT COMPLAINTS OR DAMAGE CLAIMS ARE FILED DUE TO DAMAGES OCCURRING ADJACENT TO OR DOWNSTREAM FROM PROPERTY BY SEDIMENT RESULTING FROM EROSION ON THE PROJECT SITE.

22. GOOD HOUSEKEEPING PRACTICES SHALL BE MAINTAINED ON SITE TO KEEP SOLID WASTE FROM ENTRY INTO WATERS.

23. ALL FUELING FACILITIES PRESENT ON SITE SHALL ADHERE TO APPLICABLE FEDERAL AND STATE REQUIREMENTS CONCERNING UNDERGROUND STORAGE, ABOVE GROUND STORAGE AND DISPENSERS, INCLUDING SPILL PREVENTION, CONTROL AND COUNTER MEASURES.

- 24. RIGHT OF WAY TO BE STABILIZED AS REQUIRED BY APWA SECTION 2400.
- 25. EROSION CONTROL IS TO BE PLACED IN PHASING AS CONSTRUCTION PROGRESSES.
- 26. MINIMAL WASHING OF CONCRETE EQUIPMENT ALLOWED, CHUTE ETC. CONCRETE WASHOUT OF THE DRUM IS NOT ALLOWED. ANY PIT/WASHOUT AREA NEEDS TO BE MAINTAINED IN A NON-DISCHARGING MANNER AND ANY WASTE RESIDUE WILL NEED TO BE CLEANED OUT AND REMOVED AT THE END OF PROJECT.
- 27. EROSION CONTROL SEDIMENT FENCE TO BE INSTALLED 1'-0" BEHIND CURB & GUTTER UPON COMPLETION OF BACKFILL OF CURB IN ALL AREAS WHERE SLOPES FROM LOT DRAIN TOWARDS CURB. UPON COMPLETION OF FINAL GRADING THE TOES OF ALL EMBANKMENTS IN EXCESS OF TWO FEET IN HEIGHT WILL HAVE EROSION CONTROL SEDIMENT FENCE INSTALLED.



## CONSTRUCTION ENTRANCE NOTES:

1. STONE SIZE — USE 2" STONE OR RECLAIMED OR RECYCLED EQUIVALENT.

- 2. LENGTH AS REQUIRED, BUT NOT LESS THAN 50 FEET.
- 3. THICKNESS NOT LESS THAN (6) INCHES.
- 4. WIDTH TWENTY (20) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.

  5. FILTER CLOTH WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- 6. SURFACE WATER ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 3:1 SLOPES WILL BE PERMITTED.

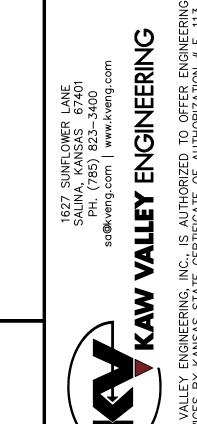
  7. MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT
- TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF WAY MUST BE REMOVED IMMEDIATELY.

  8. WASHING WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC
- RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

  9. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED AFTER EACH RAIN.

CONSTRUCTION ENTRANCE
DETAIL

047

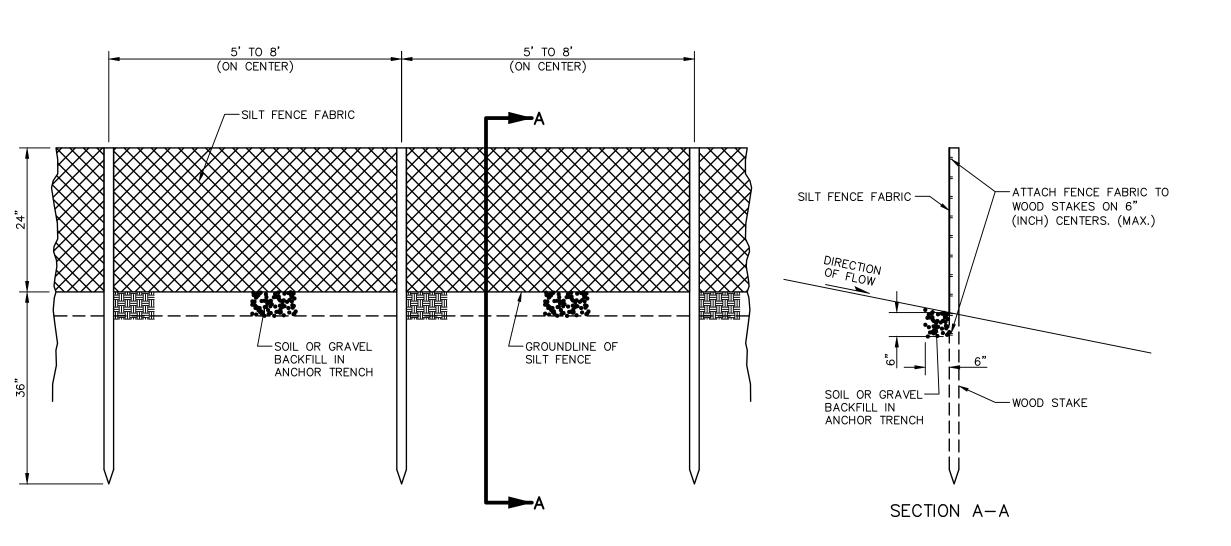


29241

MATTHEW J. ROWE

ENGINEER

KS # 29241



SEDIMENTATION FENCE 812

ASTRA BANK

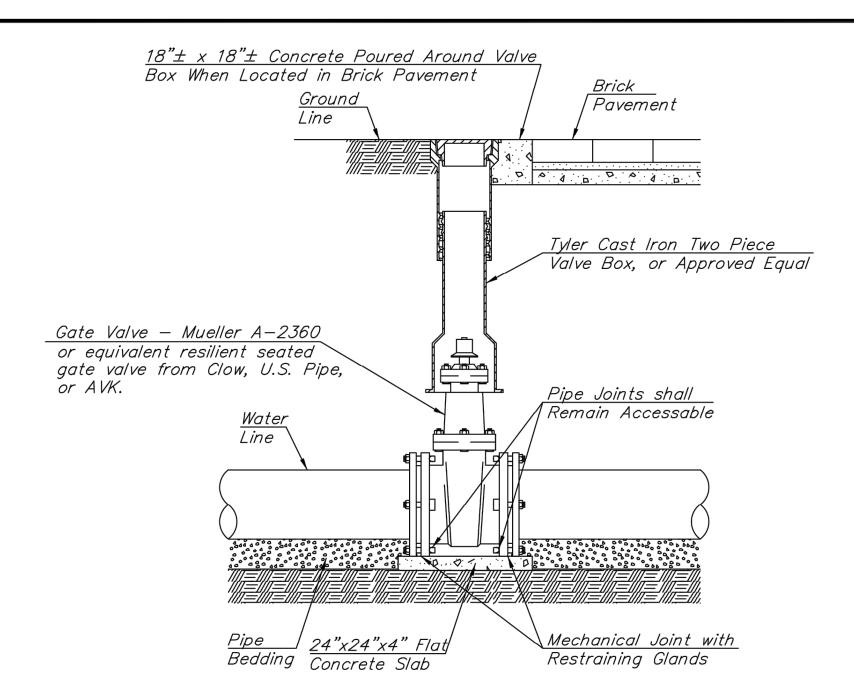
27TH, FORT, AND MAIN STREET

HAYS, KANSAS 67601

CIVIL PLANS

CIVIL PLANS

**3733TYP-1**SHEET

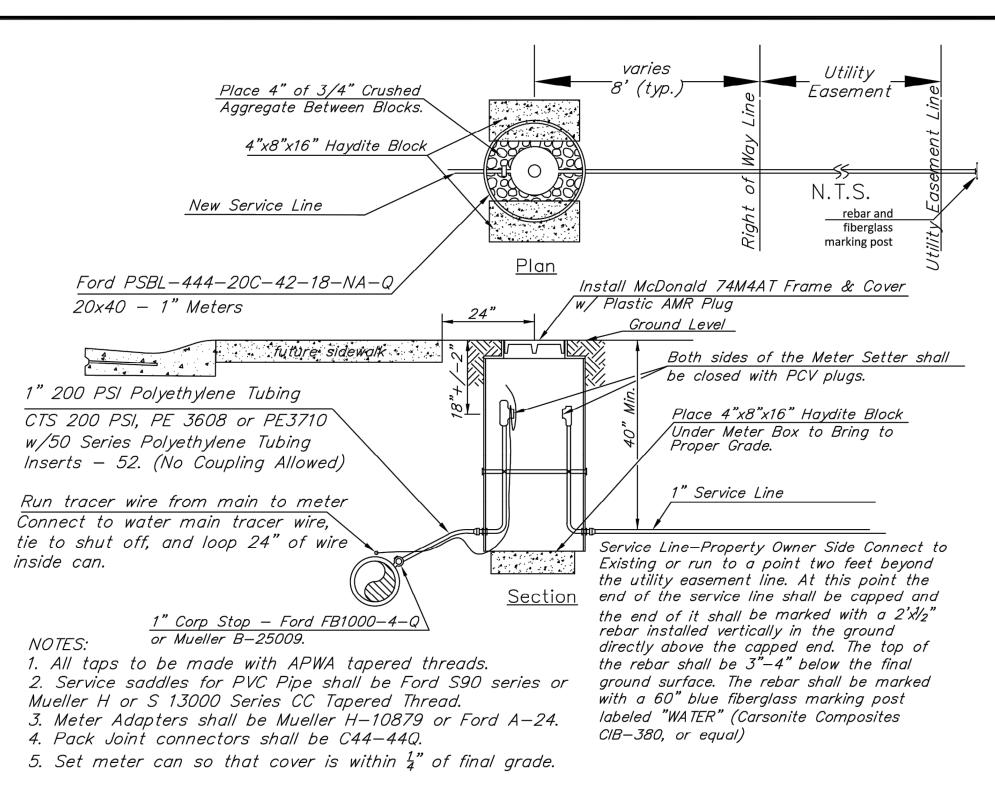


# VALVE BOX DETAIL

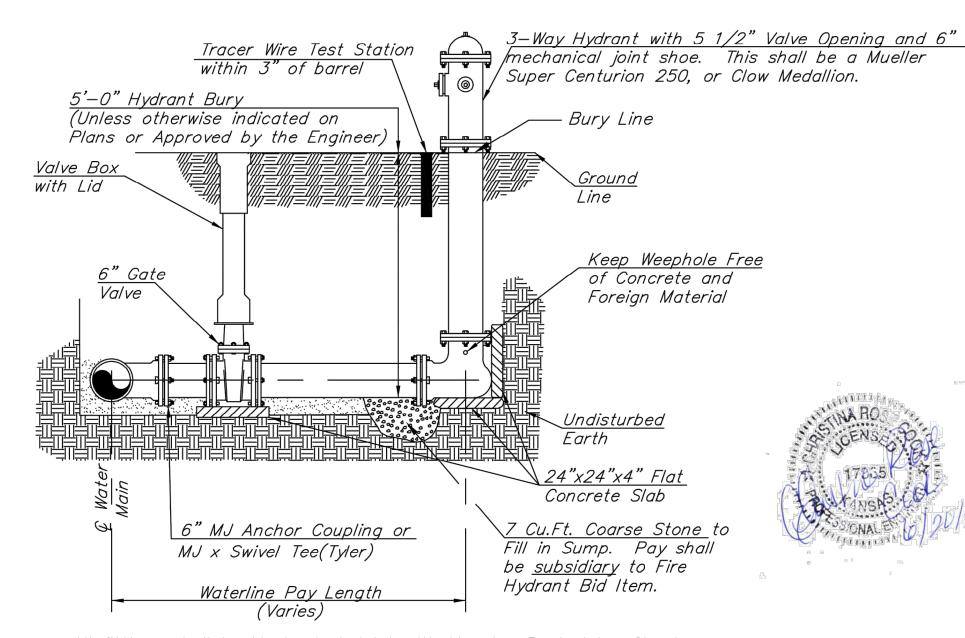
All valves and fittings shall be Mechanical Joint with Restraining Glands for PVC Pipe conforming to ANSI/AWWA C111/A21.11 (MEGALUG 2000PV or equal)

\_CLASS "B"

(For PVC & VCP)



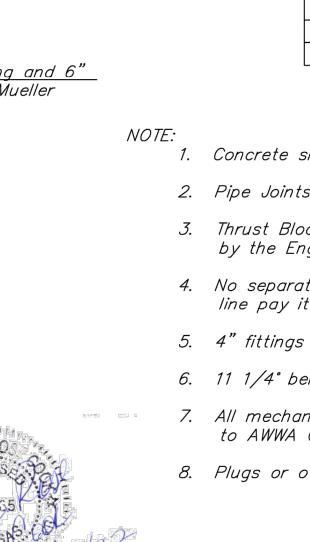
# METER SET DETAIL



All fittings shall be Mechanical Joint with Megalug Restraining Glands

See Specifications for additional information.

# TYPICAL FIRE HYDRANT ASSEMBLY DETAIL



6" - 16" 12" 36" 36" 8.8 8" - 90° 30" 30" 5.4 10" - 45° 36" 24" 5.7 10" - 90° 42" 36" 8.5 12" - 45° 33" 33" 6.8 12" - 90° 48" 42" 11.1 V = Minimum cubic feet of concrete required.

8" | 24" | 24" | 4.9 | 6"-90°

10" | 30" | 30" | 6.6 | 8"-45°

Down Bars

<u> Undisturbed Earth</u>

(Typical)

Horizontal Bend

TEES

Plan

24"

Section

t: 1. Concrete shall have compressive strength at twenty—eight (28) days not less than 3,000 p.s.i..

Section

BENDS

SIZE

6" 24" 18" 4.1 6"-45° | 18" | 18" | 2.4

THRUST BLOCK DIMENSIONS

2. Pipe Joints shall remain accessible.

3. Thrust Blocks shall be at all tees, bends, plugs, caps, fire hydrants and valves, or as required by the Engineer.

4. No separate payment shall be made for thrust blocking, but the cost shall be subsidiary to the line pay items.

5. 4" fittings to be considered as 6" fittings for thrust block requirements.

6. 11 1/4° bends and 22 1/2° bends to be considered as 45° bends for thrust block purposes.

7. All mechanical joint fittings shall be restrained using restraining glands for PVC pipe conforming to AWWA C111 and be MEGALUG 2000PV or equal. All bends still require thrust blocks.

CHECKED BY

8. Plugs or other dead ends shall be considered as a tee for thrust block purposes.

# THRUST BLOCK DETAILS

NOTE: See Sheet \_\_\_\_ for Tracer Wire Detail, required if PVC pipe is used.

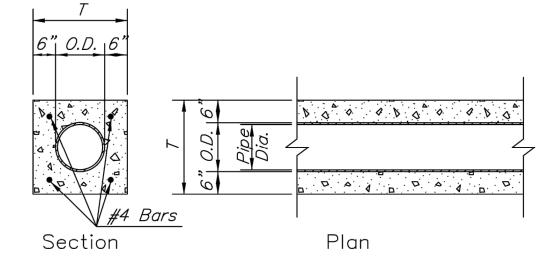
Width of the Thrust Block

to the pipe sides is 1'-6"

measured perpendicular

Vertical Bend

minimum.



For use where indicated on detailed
Plans or as directed by the Engineer.

\* PLACED WHERE WATERLINE GOES UNDER SANITARY SEWER

Scale: 1" = 2'

CONCRETE ENCASEMENT DETAIL

1	4/28/2022	Meter Set Detail Update		ОРМ	JRB		
NO.	DATE	REVISIONS		BY	CHECKED		
WATER LINE DETAILS							
	CITY OF HAYS						
DESIGNI	D BY	DATE	PROJECT NO.				
DRAWN BY DATE		DATE	JOB NO				

SCALE AS NOTED SHEET \_\_\_ OF \_\_

# (Where noted on Plans)

CLASS "A" Conc. Arch

Trench

Bc Outside Diameter of Pipe

<u>LEGEND</u>

Dia. Nominal Pipe Size

Final Backfill

Initial Backfill Sand—Gravel Fill

Sand—Gravel

Granular Fill

Concrete \*

 For use only where directed by the Engineer.

# 1/8 of total trench backfill cover depth, or 12" minimum depth.

#### BEDDING NOTES

\_CLASS "C"

(For DIP)

Granular Fill to be Crushed Stone with not less than 95% passing the 3/4" sieve and not less than 95% to be retained on the #4 sieve, with not more than 2% passing the #200 sieve. The material shall be well graded with the majority of the largest particle size not exceeding 1/2 inch. Sand—Gravel Fill shall be from an approved sand source and shall be free from debris, organic material, and stones. Granular fill may be substituted for sand—gravel fill.

Initial backfill shall be finely divided job excavated material free from debris, organic material and stones, compacted to 90% maximum density as determined by by A.S.T.M. designation: D698. Granular Fill may be substituted for all or part of the Initial Backfill.

Final Backfill may be job excavated material and shall have no rock or stones having a dimension larger than 6" within 3' of the top of the pipe. Final backfill shall be compacted as noted on the Plans.

Flowable fill may be used as a substitute for Compacted Backfill.

STANDARD PIPE EMBEDMENTS

ASTRA BANK

29241

MATTHEW J. ROWE

**ENGINEER** 

KS # 29241

ENGINEERING

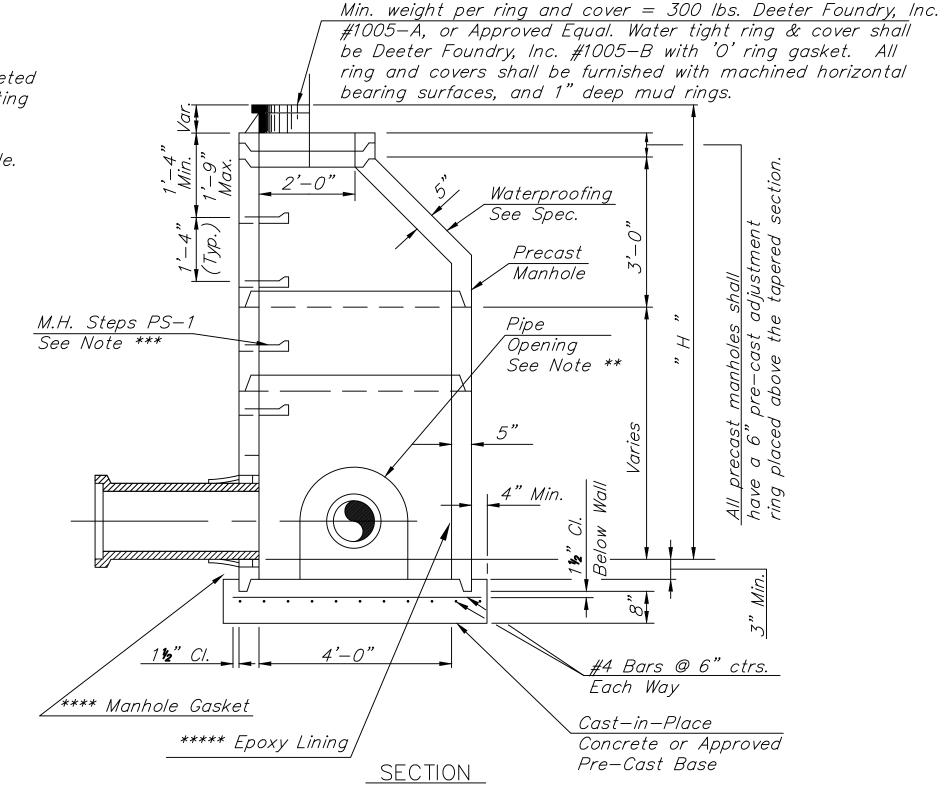
\TEY

Note\*\* Openings for sewer pipes to be as follows: Formed Openings: A one inch keyway shall be formed around the pipe opening. Roughed Openings: Reinforcing shall be left in place around the sewer pipe to reinforce the grout. Concrete shall be left rough to provide bond for grout.

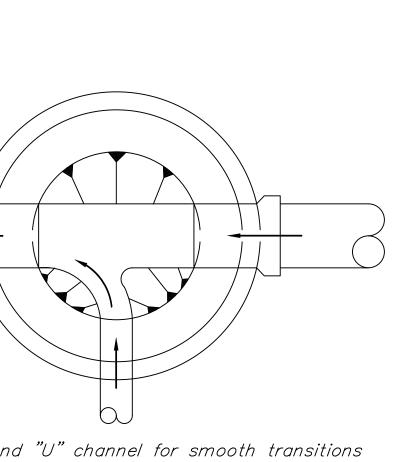
Note\*\*\* All manhole steps shall be cast iron steps having a minimum weight of 14 pounds per step, or plastic covered reinforcing bar steps such as M.A. Industries, Inc. Model PS-1 or approved equal. Steps shall be a minimum of 10 inches wide and have a minimum depth of 10 inches. All steps shall extend 5 inches from manhole walls.

Note\*\*\* All manhole openings in new manholes shall be gasketed openings unless otherwise approved. The gasket shall be an A-LOK type X-Cel or approved equal.

Note\*\*\*\* All manholes shall be lined with a two part epoxy polyamide coating such as No. 332.98 Wilkopon HB Gray or approved equal that has good moisture, chemical and abrasion resistance, good hardness and excellent adhesion to steel and concrete.

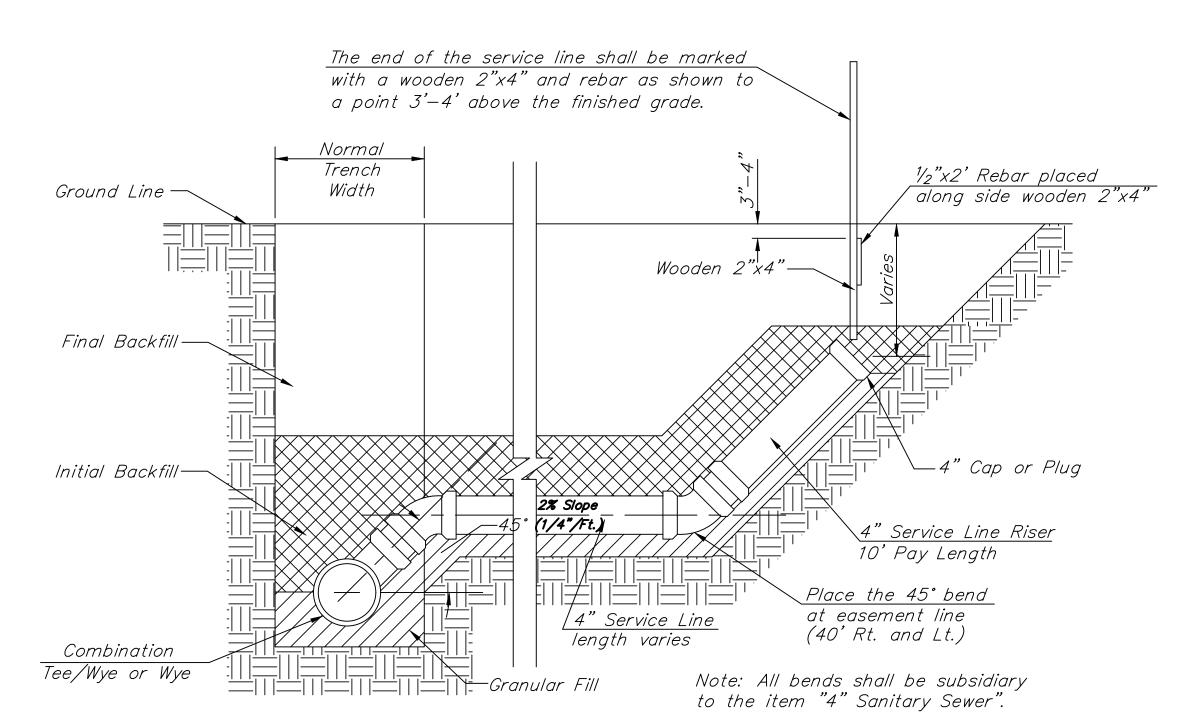


TYPE I MANHOLE



Shape invert and "U" channel for smooth transitions conforming to lower half cross section of sewer line with a smooth troweled finish and provide a slope not less than two (2) or more than four (4) inches from wall to "U" channel.

INVERT DETAIL



SERVICE CONNECTION BRANCH AND LINE

## GENERAL NOTES

Precast risers, cones, flat top slabs, reducing flat slabs, floors and grade rings shall be manufactured according to the most recent ASTM C-478 Specifications. Cone section shall be the eccentric type.

All manhole construction shall be watertight. All joints shall be filled with mortar or plastic joint compound as approved by the Engineer.

Any erection holes, step holes, or other holes through the wall of the manhole shall be covered with a 3" concrete grout and cover an area 6" in all directions from said hole, and then waterproofed as per specs.

When so ordered by the Engineer the top of the manhole shall be sloped slightly to approximately fit the ground line or other conditions.

Grade rings shall be formed with tongue and groove or lugs and notches. Grade rings shall be set in mortar or plastic joint compound as approved by the Engineer.

When field conditions require "H" to be adjusted, additional grade rings may be used as directed by the Engineer.

All dimensions relative to the reinforcing steel are to the center of the bar unless otherwise noted.

Steps shall be installed in all manholes when specified on the plans. The 16 inch step spacing is typical and may be adjusted to clear joints in manholes. (18 inch Max. spacing)

All concrete bases for precast manholes shall be 3,000 psi concrete. Concrete bases shall be a minimum of 8" thick below the wall of the manhole.

All drop pipe for drop manholes shall be the same diameter as the inlet sewer pipe.

Whenever the subgrade for any manhole or drop manhole is of an unsatisfactory material, same shall be removed and replaced with a crushed rock bedding and compacted to the satisfaction of the Engineer.

Form or steel trowel all inverts in manholes or drop manholes.

All standard manhole or drop manhole bases shall be placed directly on or against rock or hard shale where same is encountered. No fill material of any kind will be permitted in overbreakage.

All concrete encasement in rock shall be poured against the face of the rock. No payment shall be made for extra concrete used in overbreakage of the dimensions as shown on the typical section of concrete encasement.

Manhole rings and covers to be machined.

All precast manhole details shall be subject to the approval of the Engineer.

All castings shall be gray iron and shall comply with ASTM A-48 Class 30.

Minimum spacing between sewer lines entering a manhole must be 4" clear.

29241

MATTHEW J. ROWE ENGINEER KS # 29241

ENGINEERING SUNFLOWER LANE, KANSAS 67401 785) 823–3400 VALLEY

STREET TRA BANK TH, FORT, AND MAIN S YS, KANSAS 67601

E24D3733
DESIGNER DRAWN BY MJR

**3733TYP-1**SHEET

07

Note: Detail proved by City of Hays, Kansas.

2-#4 Bars Continuous

CONCRETE PROTECTION COLLAR

6" Adjustment Ring Min.

Concrete Around Ring &

areas other than paved

roadways where top of

manhole is at finished

grade.)

4" Min. Concrete onto Cone

Section of Manhole Cone

Cover. (Typical in all