

-- APPENDIX E --
TOWN OF
WHITELAND, INDIANA
TYPICAL CONSTRUCTION GUIDELINES AND DETAILS
2013

TOWN COUNCIL

ROBERT ZEHR, President
KENT BEESON, Vice President
ROGER FORD, Member
CHRIS HADLEY, Member
ED TICHNEOR, Member

TOWN OFFICIALS

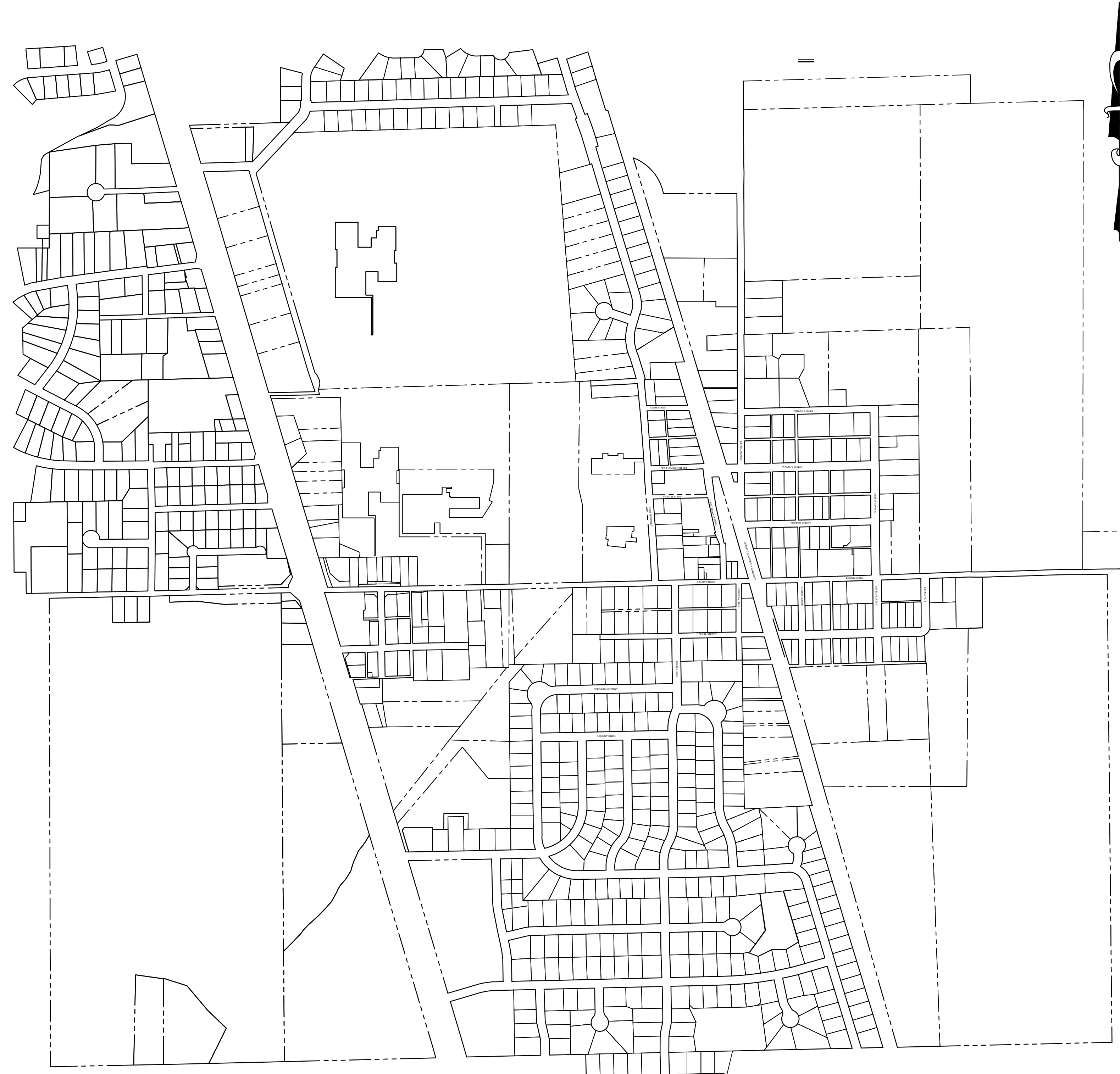
MICHELLE R. RICHARDS, Clerk Treasurer

PLAN COMMISSION

RICHARD HILL, President
RUSTY SNYDER
ROBERT(BOB) ZEHR
GARY HOWARD
BYRON TEMPLE
RANDY WEATHERS
TIM BROWN

DEPARTMENT HEADS

DENNIS CAPOZZI, Town Manager
RICK SHIPP, Town Marshal
DAVE GABBARD, Fire Department Chief
NATHAN BILGER, Planning + Zoning Administrator
CHRIS JONES, Street Supervisor
RANDY WEATHERS, Water Superintendent
RUSSELL SNYDER, WWTP Supervisor
STEPHEN WATSON, Town Attorney



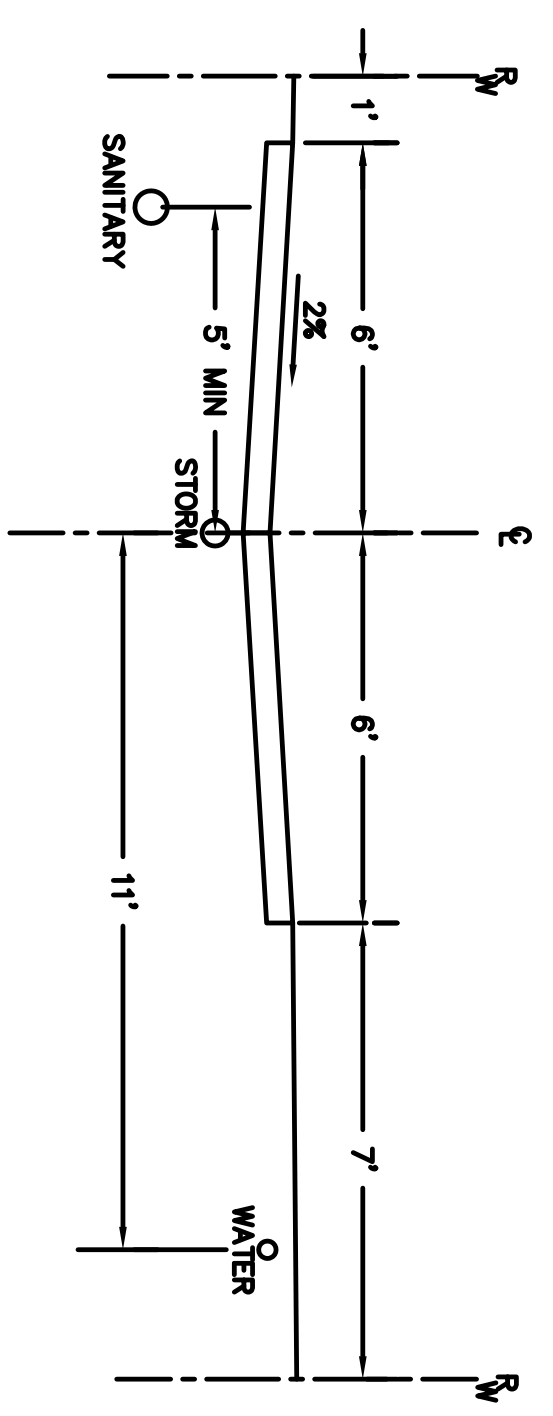
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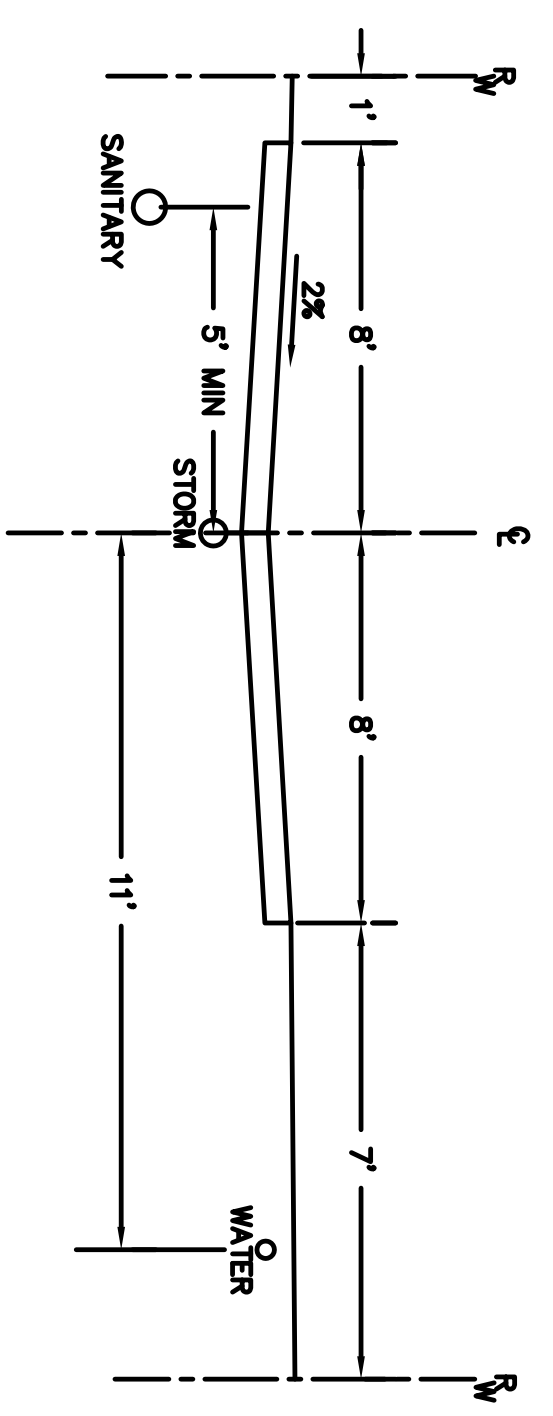
TOWN OF WHITELAND			
811 INDIANA 811 (317) 535-5531 PLANNING/ZONING (317) 535-7627 WASTEWATER DEPARTMENT (317) 535-5531 WATER WORKS (317) 535-8280 FIRE DEPT. (317) 535-8100 POLICE DEPT. (317) 535-5531 STREET DEPT.	549 MAIN ST WHITELAND, IN 46184 TYPICAL CONSTRUCTION GUIDELINES AND DETAILS	DATE August 2013 SHEET 1 OF 12	
REVISIONS	DATE	DESCRIPTION	BY

6 GENERAL NOTES

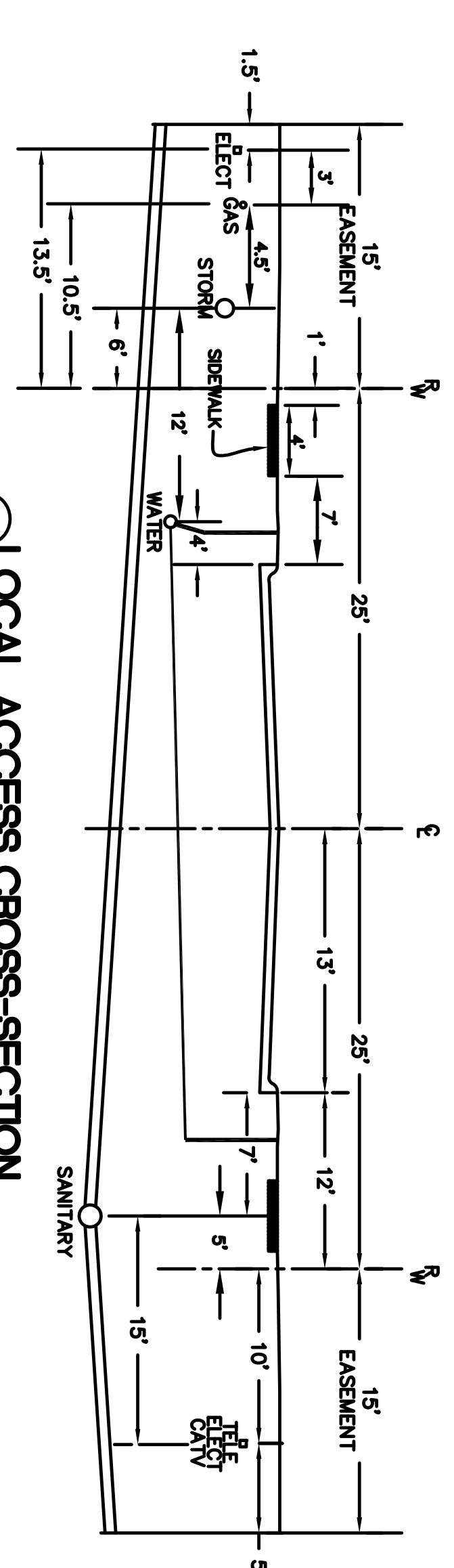
1. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES AT LEAST 24 HOURS PRIOR TO ANY CONSTRUCTION OR EXCAVATION. DURING CONSTRUCTION, ALL UTILITIES SHALL BE ADEQUATELY SUPPORTED TO MINIMIZE DAMAGE.
2. ALL PERMITS AND EASEMENTS WILL BE OBTAINED BY THE OWNER WITH ANY REQUIRED INSURANCE OR BOND TO BE PROVIDED BY THE CONTRACTOR PRIOR TO THE START OF WORK ON THE PROJECT.
3. ALL VERTICAL CONTROL SHALL BE ON NORTH AMERICAN VERTICAL DATUM (NAVD 1988). HORIZONTAL CONTROL SHALL BE ON NAD STATE PLANE COORDINATES.
4. WHEREAS PROPRIETARY EQUIPMENT IS SPECIFIED, FOR APPROVED EQUAL, ITS USE AND ALL PROPOSALS FOR SUBSTITUTION SHALL BE SUBMITTED TO THE TOWN IN WRITING FOR THEIR APPROVAL.
5. ALL AREAS DISTURBED BY THE CONSTRUCTION PROCESS SHALL BE FERTILIZED AND SEEDED. ADEQUATE MULCHING SHALL BE PLACED AFTER SEEDING AND FERTILIZING. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ADEQUATE GROWTH IS ESTABLISHED. SOODING WILL BE REQUIRED AS SHOWN ON THE PLANS.
6. TRENCHES UNDER PAVED AREAS (EXCLUDING SIDEWALKS) SHALL BE BACKFILLED WITH GRANULAR MATERIAL PER INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, LATEST EDITION, SECTION 211, AND CONFINED IN 12" GRANULAR MATERIAL TO END THE TRENCH AROUND THE LITS OF THE PAVED SURFACE. THE GRANULAR SHALL BE PLACED TO THE BOTTOM OF THE TRENCH. FLOWABLE MORTAR PER SECTION 213 OF INDIANA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", LATEST EDITION, MAY BE USED IN LIEU OF GRANULAR MATERIAL WITH PRIOR APPROVAL OF THE WHITELAND TOWN COUNCIL.
7. INSTALLATION OF OR PROVISIONS FOR THE INSTALLATION OF ALL UNDERGROUND UTILITIES INCLUDING SERVICE LATERALS TO BE PLACED UNDER THE PAVEMENTS SHALL BE ESTABLISHED PRIOR TO THE CONSTRUCTION OF THE PAVEMENTS.
8. CONTRACTOR SHALL CONTACT THE TOWN IF ANY DAMAGE TO TOWN UTILITIES OCCURS. DAMAGE TO TOWN'S WATER MAIN OR TOWN'S SEWERS BY CONTRACTORS MAY BE REPAIRED BY TOWN'S WATER WORKS DEPT. OR SEWER DEPT. WITH ALL COSTS OF REPAIR TO BE PAID BY THE CONTRACTOR. CONTRACTORS SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES. UTILITIES SHALL BE REPAIRED IN ACCORDANCE WITH THE AFFECTED UTILITY'S REPAIR POLICY.
9. 18" VERTICAL SEPARATION AND 10'-0" HORIZONTAL SEPARATION IS TO BE MAINTAINED BETWEEN WATER MAINS, HYDRANTS AND SEWERS (STORM AND SANITARY).
10. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A SAFE CONSTRUCTION SITE AND FOR KEEPING SURROUNDING STREETS NEAT AND CLEAN. THE CONTRACTOR WILL PROVIDE ALL TRAFFIC CONTROL REQUIRED ON PUBLIC WAYS NEAR THE PROJECT.
11. THE CONSTRUCTION WORK SHALL CONFORM TO THE REQUIREMENTS OF ALL AGENCIES HAVING JURISDICTION OVER THE PROJECT.
12. THE CONTRACTOR WILL NOTIFY THE APPROPRIATE GOVERNMENTAL AGENCIES AT LEAST 24 HOURS PRIOR TO STARTING OR RESUMING WORK ON A PROJECT.
13. THE CONTRACTOR WILL PROVIDE SAFE ACCESS TO THE CONSTRUCTION SITE FOR ALL INSPECTORS AND WILL PROVIDE MATERIAL SAMPLES FOR TESTING.
14. INFORMATION REQUIRED FOR PREPARING "AS-BUILT" DRAWINGS MUST BE RECORDED PRIOR TO THE BACKFILLING OF THE UNDERGROUND FACILITY.
15. TOP OF MANHOLE FRAMES TO BE SET AT PROPOSED YARD OR SIDEWALK GRADE WHEN LOCATED IN FRONT YARD AREA OF LOT OR RIGHT-OF-WAY.
16. ALL SIGN, MARKINGS AND OTHER TRAFFIC CONTROL DEVICES SHALL COMPLY WITH INDOT STANDARDS AND IMLUTOD.
17. UTILITY PLACEMENT FOR OTHER THAN SINGLE FAMILY RESIDENCES, CONTACT TOWN MANAGER'S OFFICE FOR REQUIREMENTS.
18. SIDEWALK WIDTH SHALL BE IN ACCORDANCE WITH THE TOWN STANDARDS.
19. SIDEWALK PLACEMENT SHALL BE REFERENCED FROM THE RIGHT OF WAY
20. ALL DETAILS SHALL BE IN ACCORDANCE WITH THE TOWN OF WHITELAND, INDIANA SUBDIVISION CONTROL ORDINANCE, LATEST EDITION.
21. THE MAXIMUM LENGTH OF A CUL-DE-SAC STREET SHALL BE 800'. THE MINIMUM CENTER LINE RADIUS OF A LOCAL RESIDENTIAL STREET SHALL BE 100'.



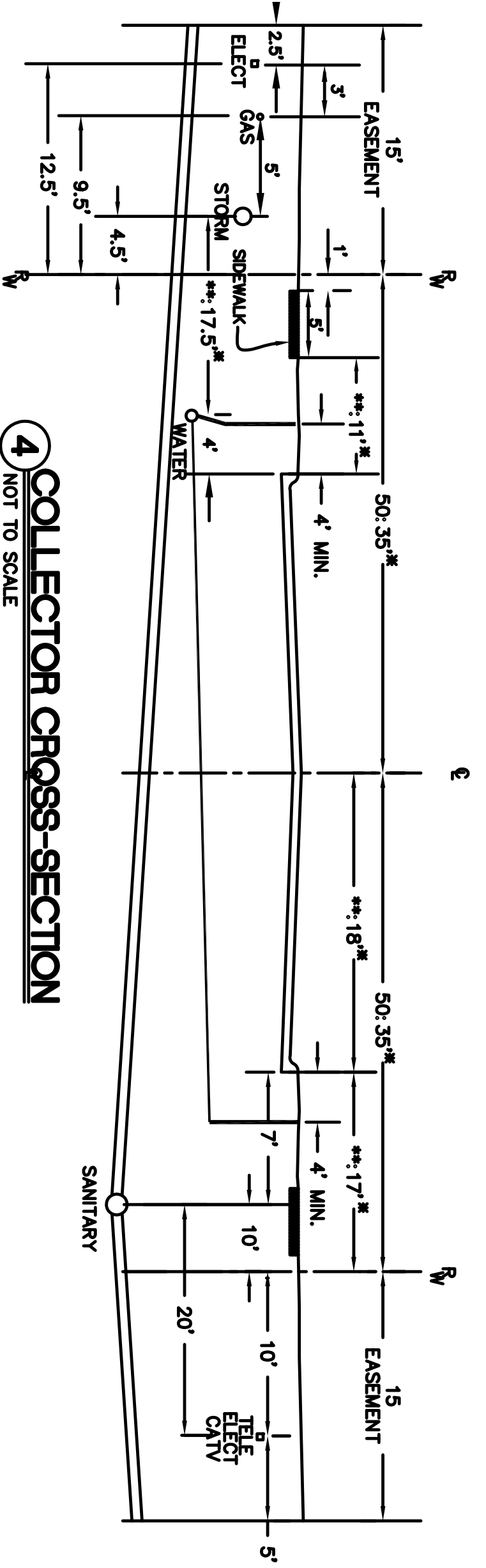
1 ONE-WAY ALLEY CROSS-SECTION
NOT TO SCALE



2 TWO-WAY ALLEY CROSS-SECTION
NOT TO SCALE

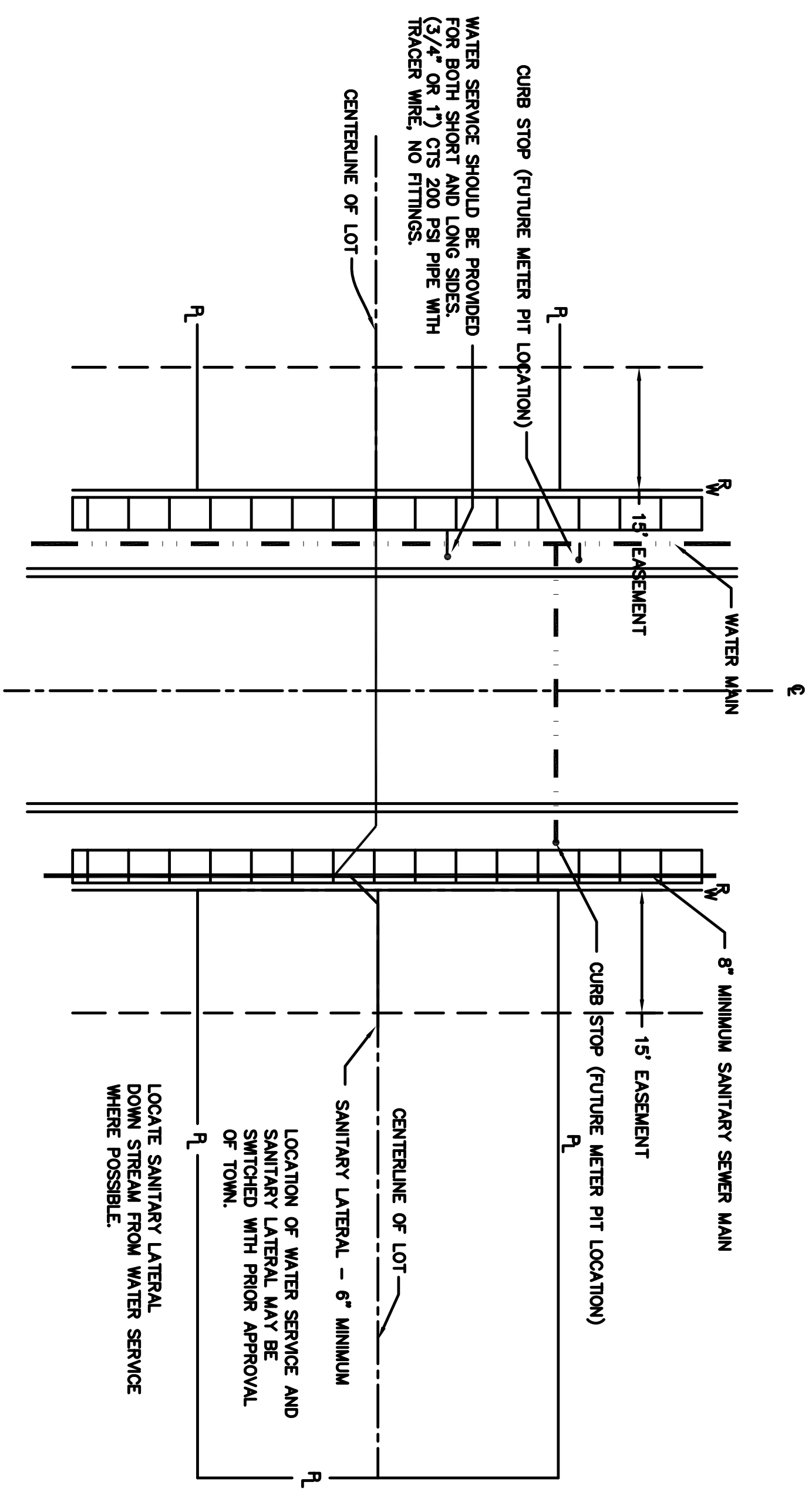


3 LOCAL ACCESS CROSS-SECTION
NOT TO SCALE

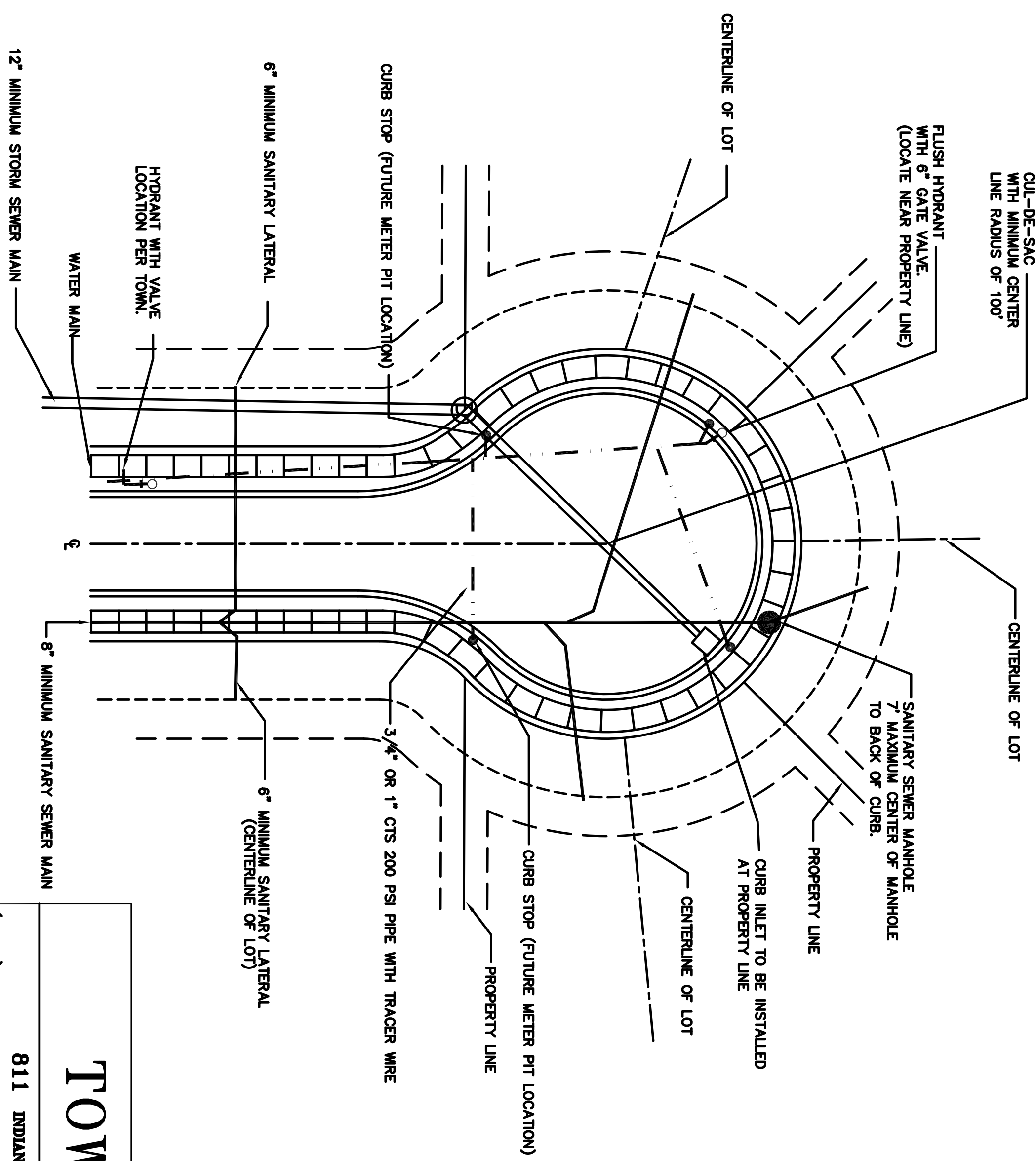


4 COLLECTOR CROSS-SECTION
NOT TO SCALE

USE NORTH AND EAST FOR DIRECTIONAL CONTROL. GUIDELINES FOR UTILITY LOCATIONS WITHIN THE ROAD RIGHT-OF-WAY AND/OR UTILITY EASEMENTS.
* = COLLECTOR HIGHWAY; LOCAL COLLECTOR STREET
** = IN ACCORDANCE WITH THE DEVELOPMENT PLAN AND AS APPROVED BY THE COMMISSION



USE NORTH AND EAST FOR DIRECTIONAL CONTROL. GUIDELINES FOR UTILITY LOCATIONS WITHIN THE ROAD RIGHT-OF-WAY AND/OR UTILITY EASEMENTS.

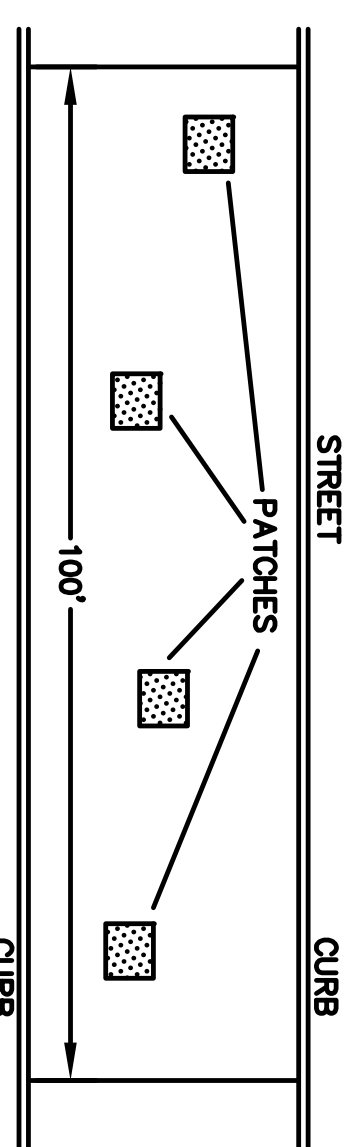


USE NORTH AND EAST FOR DIRECTIONAL CONTROL. GUIDELINES FOR UTILITY LOCATIONS WITHIN THE ROAD RIGHT-OF-WAY AND/OR UTILITY EASEMENTS.

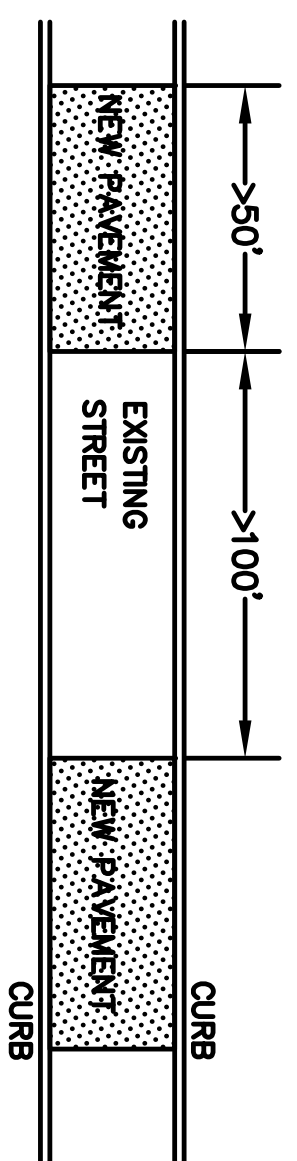
5 UTILITY LOCATIONS
NOT TO SCALE

TOWN OF WHITELAND	
811 INDIANA 811	DATE
(317) 535-5531 PLANNING/ZONING	August 2013
(317) 535-7627 WASTEWATER DEPARTMENT	549 MAIN ST
(317) 535-5531 WATER WORKS	WHITELAND, IN 46184
(317) 535-8280 FIRE DEPT.	TYPICAL CONSTRUCTION
(317) 535-8100 POLICE DEPT.	GUIDELINES AND DETAILS
(317) 535-5531 STREET DEPT.	2 OF 12

REVISIONS	DATE	DESCRIPTION	BY

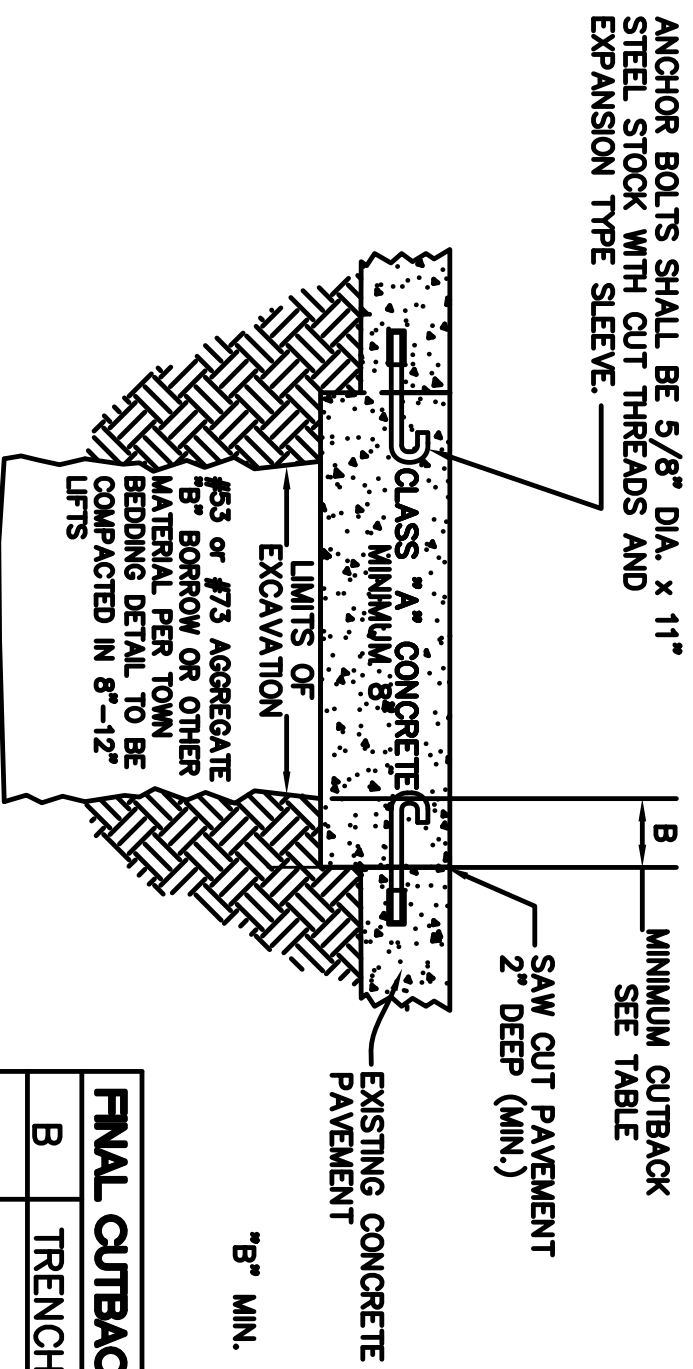


- MULTIPLE CUTS SHALL BE DEFINED AS TOWN STREET OR ALLEY, ASPHALT OR CONCRETE, THAT HAVE THE FOLLOWING CONDITIONS:
1. FOUR (4) OR MORE PATCHES PER 100 LINEAL FEET OF ROADWAY WITHIN A ONE (1) YEAR PERIOD OF TIME, AND
 2. AREA CUT IS GREATER THAN 64 SF. IN 100 LINEAL FEET OF ROADWAY WITHIN A ONE (1) YEAR PERIOD OF TIME.
- MULTIPLE CUTS TO BE RESTORED AS FOLLOWS:

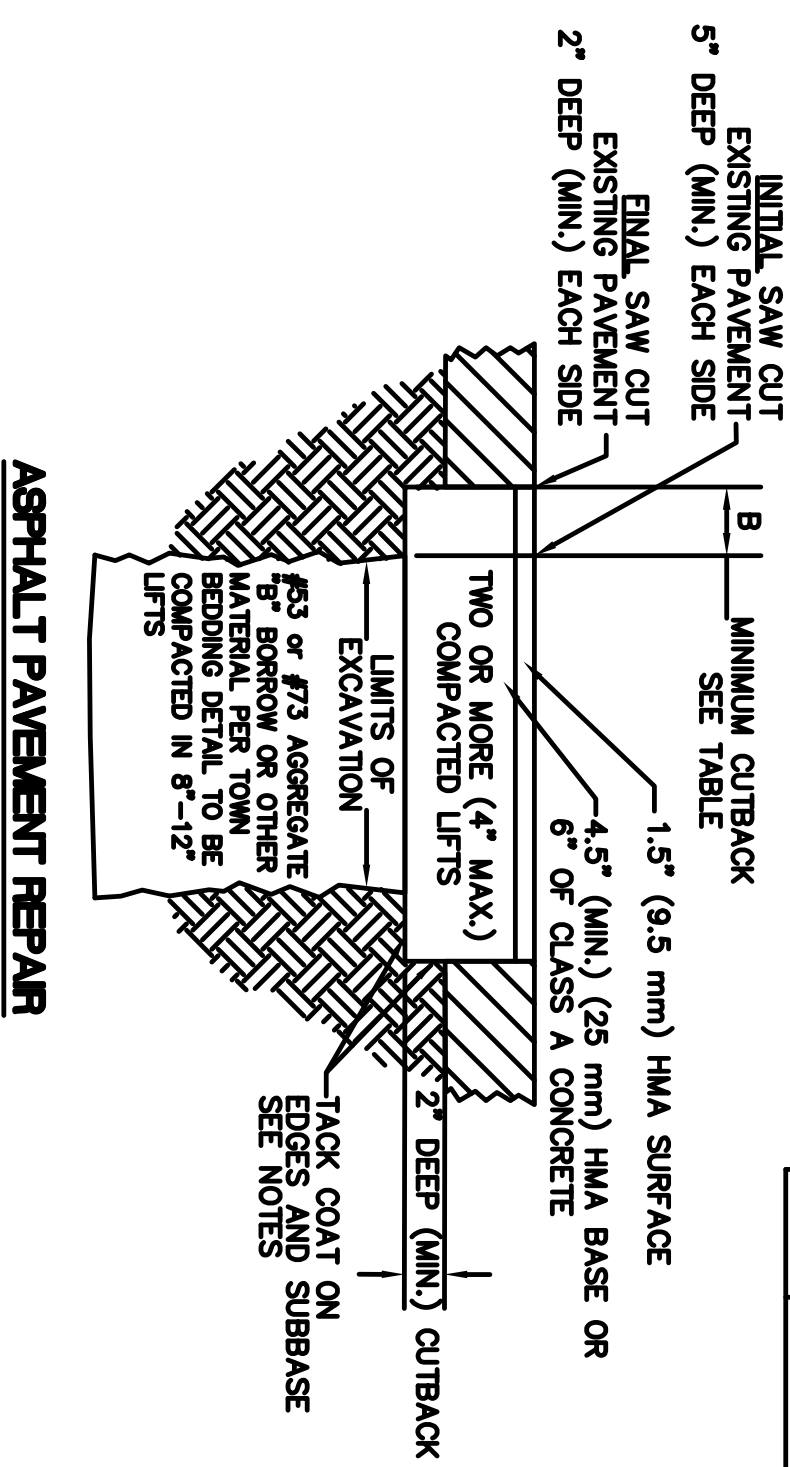


1. NEW PAVEMENT AREAS SHALL NOT HAVE GAPS OF LESS THAN 100 FEET. MINIMUM LENGTH OF NEW PAVEMENT SHALL BE 50 FEET.
2. THE WHITELAND TOWN COUNCIL AND STORM WATER MANAGEMENT BOARD SHALL HAVE THE AUTHORITY TO RESOLVE A PAVEMENT FROM THE UTILITY COMPANY IN USED RESURFACING. THE PAVEMENT SHALL BE BASED UPON THE CONTRACT AND THE TOWN'S MOST RECENT RESURFACING CONTRACT. THE TOWN'S MOST RECENT RESURFACING CONTRACT TO THIS STANDARD. THE PAVEMENT SHALL BE PROBABLY ACCORDING TO THE TOWN'S RESURFACING SCHEDULE AT A RATE OF 10% PER YEAR. FOR EXAMPLE IF THE STREET IS SCHEDULED TO BE RESURFACED IN ONE YEAR, ONLY 10% WILL BE CHARGED. IN 2 YEARS ONLY 20%, ETC. THIS PAVEMENT OPTION SHALL NOT APPLY TO RECENTLY RESURFACED STREETS.

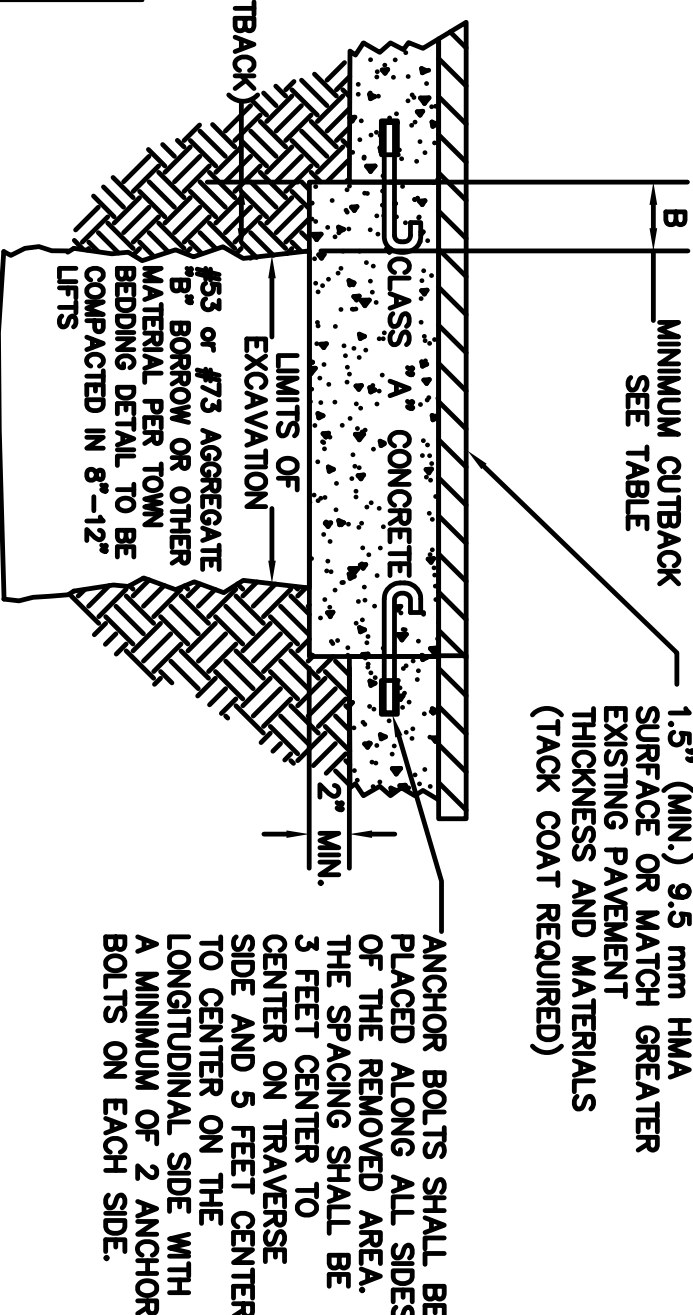
1 METHOD FOR REPLACING MULTIPLE CUTS



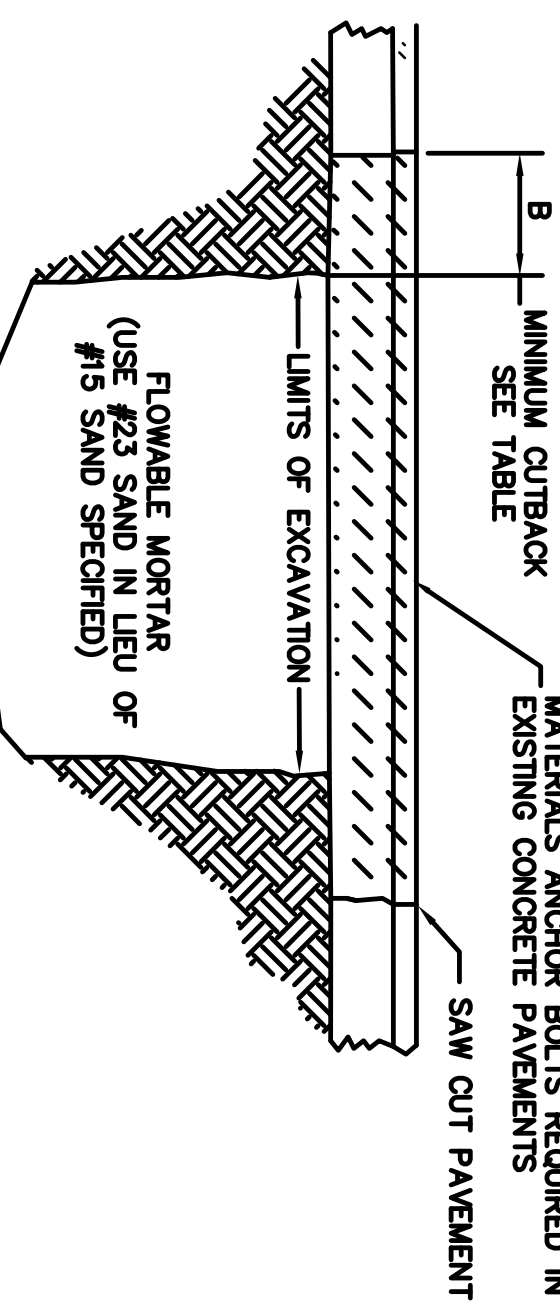
FINAL CUTBACK TABLE	
B	TRENCH WIDTH
6"	3'-0" OR LESS
9"	3'-1" TO 5'-0"
12"	5'-1" OR GREATER



ASPHALT PAVEMENT REPAIR

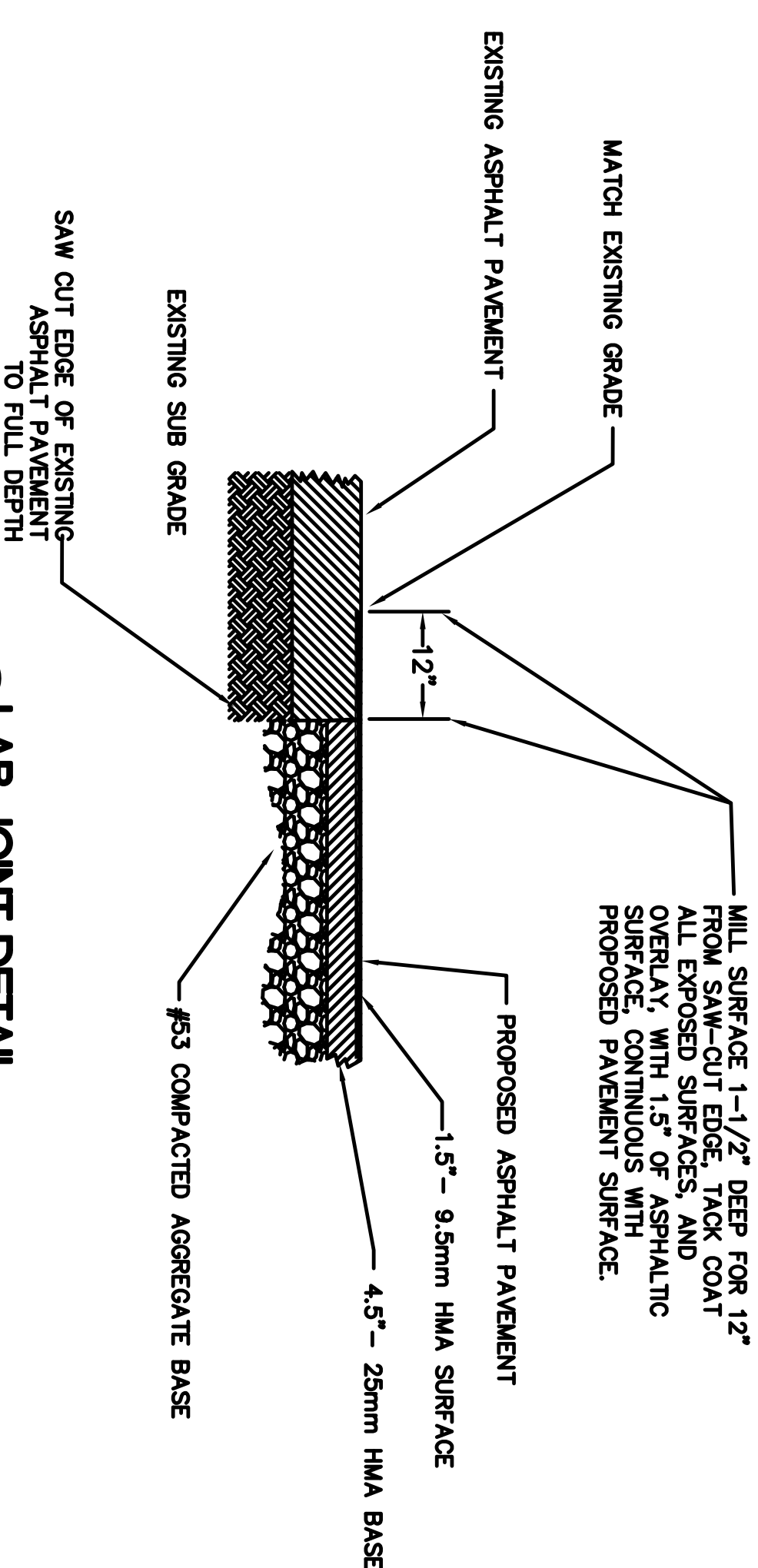


ASPHALT OVER CONCRETE PAVEMENT REPAIR



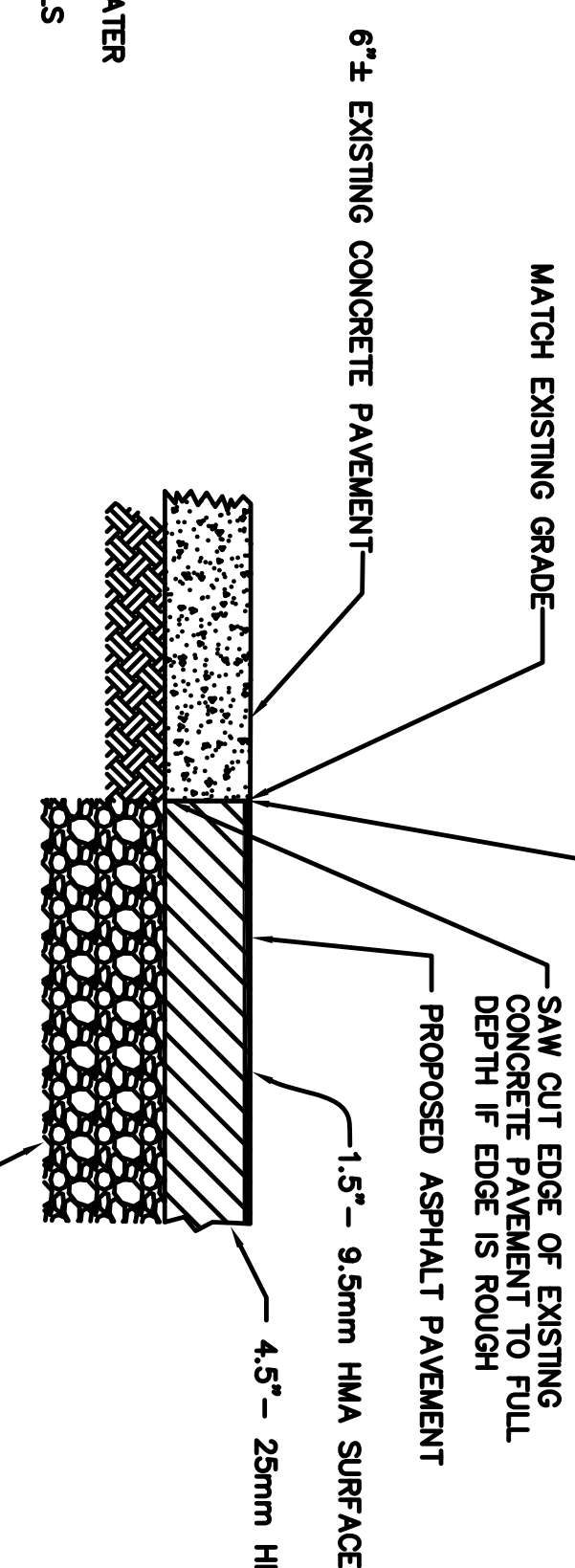
PAVEMENT REPAIR WITH FLOWABLE MORTAR BACKFILL

(FLOWABLE MORTAR SHALL NOT BE USED WHEN TEMPERATURES ARE BELOW 38 °F) ***USE OF FLOWABLE MORTAR REQUIRES PRIOR APPROVAL OF WHITELAND TOWN COUNCIL AND STORM WATER MANAGEMENT BOARD.

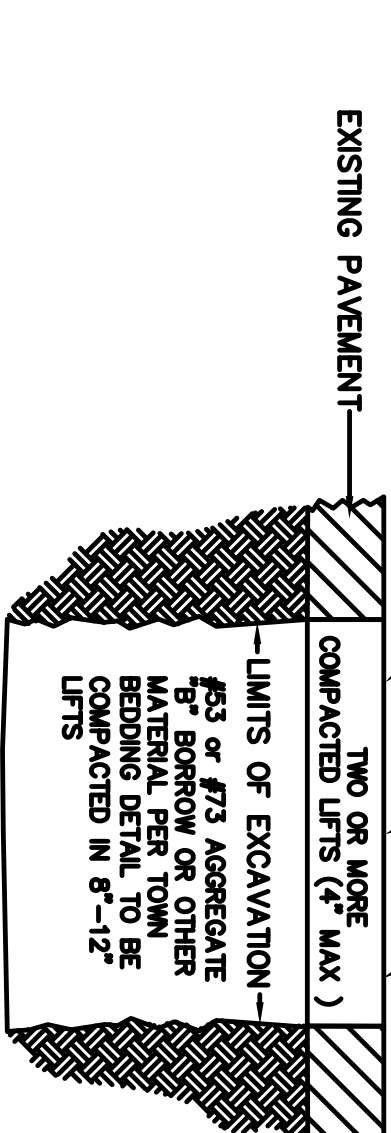
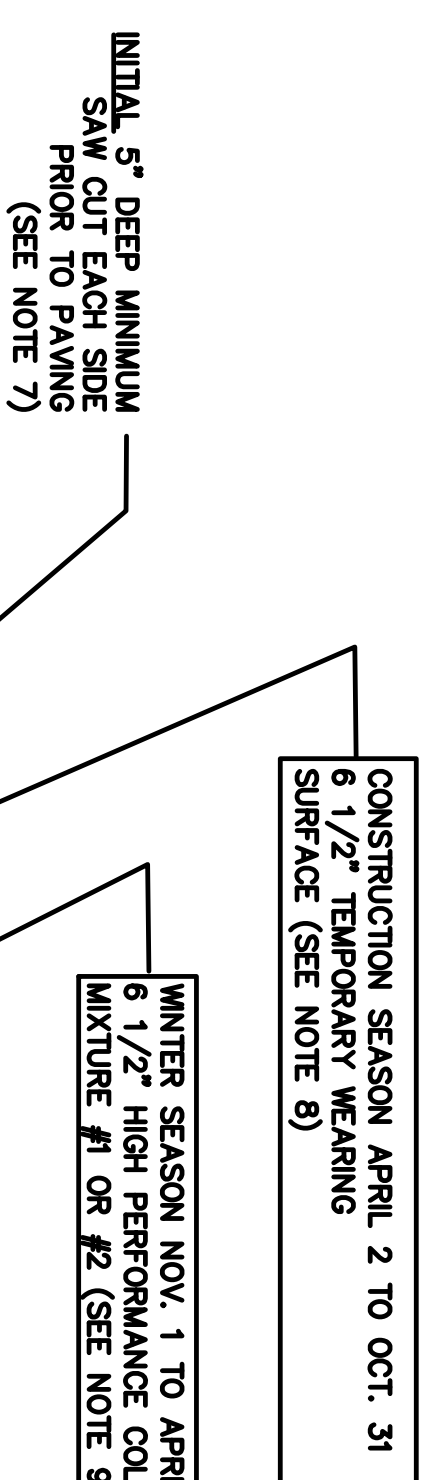


3 LAP JOINT DETAIL

SAW CUT 1/4" W X 1' D CONSTRUCTION JOINT APPLY JOINT SEALANT (SEE NEW CONSTRUCTION-CONCRETE JOINT DETAILS)



4 BUTT JOINT DETAIL



5 TEMPORARY ASPHALT REPAIR

6 PAVEMENT RESTORATION NOTES

GENERAL:

1. MAINTENANCE OF ANY STREET RESTORATION OR REPAIR SHALL BE THE RESPONSIBILITY OF THE INDIVIDUAL UTILITY OR DEVELOPER AUTHORIZED TO MAKE SUCH REPAIR UNTIL THE STREET HAS BEEN RESURFACED.

PERMANENT PAVEMENT RESTORATION:

2. PERMANENT RESTORATION SHALL COMMENCE IMMEDIATELY UPON COMPLETION OF UTILITY WORK AND BE COMPLETE WITHIN (10) WORKING DAYS UNLESS THE WHITELAND TOWN COUNCIL AND STORM WATER MANAGEMENT BOARD STATE A LARGER PERIOD. REQUEST FOR EXTENSION SHALL BE IN WRITTEN FORM AND SHALL BE ACCOMPANIED BY A STATEMENT INDICATING THE REASON(S) FOR THE EXTENSION.
3. EXISTING PAVEMENT SAW CUTS SHALL BE IN STRAIGHT LINES AND ARE PERPENDICULAR TO THE CURB (WHERE POSSIBLE). EDGES OF BROKEN PAVEMENT SHALL BE SQUARED OFF TO PROVIDE NEAT EDGE FOR PAVING.
4. ASPHALT SHALL BE PLACED USING PROFESSIONAL MEANS TO ESTABLISH A HARD, SMOOTH, EVEN GRADED SURFACE. COMPACTATION SHALL BE DONE THOROUGHLY AND UNIFORMLY BY A MACHINE ROLLER. AREAS TOO SMALL FOR MACHINE ROLLING SHALL BE HAND WITH MECHANICAL COMPACTATION EQUIPMENT UPON PRIOR APPROVAL OF THE TOWN. ALL COURSES SHALL BE INITIALLY ROLLED WITH THE ROLLER TRAVELING PARALLEL TO THE CENTERLINE OF THE PAVEMENT BEGINNING AT EACH EDGE AND WORKING TOWARD THE CENTER. ALL ROLLING AND TAMING OPERATIONS SHALL BE COMPLETED PRIOR TO ASPHALT COOLING TO BELOW 180° F.
5. PRIOR TO TACK COATING SUBBASE AND EDGES, THE EXISTING SURFACE SHALL BE FREE OF IRREGULARITIES TO PROVIDE A REASONABLY SMOOTH AND UNIFORM SURFACE TO RECEIVE TREATMENT. THE EDGES OF EXISTING PAVEMENT SHALL BE CLEANED TO PERMIT ADHESION. TACK COAT SHALL NOT BE APPLIED TO WET SURFACES OR WHEN THE AIR TEMPERATURE IS BELOW 45° F. TACK COAT MAY BE ROLLED, BRUSHED OR MOPPED. ALL EXCESS TACK COAT SHALL BE SQUEEGED FROM THE SURFACE.
6. ALL PAVEMENT RESTORATION MATERIALS TO BE PER INDOT "STANDARD SPECIFICATIONS", 1999 EDITION.

TEMPORARY PAVEMENT REPAIR

7. EXISTING PAVEMENT INITIAL SAW CUT TO BE 5" MINIMUM DEPTH TO OBTAIN STRAIGHT LINES PERPENDICULAR FROM THE CURB EDGE AND NEAT EDGE FOR PAVING. EDGES OF BROKEN PAVEMENT SHALL BE SQUARED OFF AND TRIMMED TO NEAT STRAIGHT LINES.
8. TEMPORARY PAVEMENT MATERIAL IS TO BE 6 1/2 INCHES THICK HOT MIX ASPHALT. ASPHALT COLD PATCH, BAG ASPHALT AND CRUSH STONE ARE UNACCEPTABLE FOR USE. THE USE OF STEEL STREET PLATES MUST BE REQUESTED IN WRITTEN FORM AND ACCOMPANIED WITH A REPAIR SCHEDULE. INVENTORY OF EXISTING TEMPORARY RESTORATIONS, AND STATEMENT INDICATING THE REASON(S) FOR USE OF PLATES.
9. DURING WINTER SEASON WHEN THE PERMANENT PATCH CANNOT BE COMPLETED WITHIN 10 WORKING DAYS (NOVEMBER 1 THRU APRIL 1), IF HOT MIX ASPHALT IS NOT AVAILABLE, USE INDOT APPROVED "HIGH PERFORMANCE COLD PATCH" OR EQUAL INDOT APPROVED MATERIAL. HIGH PERFORMANCE COLD PATCH IS FOR USE IN WET AND COLD CONDITIONS AND WORKABLE AT TEMPERATURES AS LOW AS -15° F. HIGH PERFORMANCE COLD PATCH MIXTURE #2 (CM350) IS FOR USE IN WET AND COLD CONDITIONS AND WORKABLE AT TEMPERATURES AS LOW AS 32° F.
10. ALL MATERIALS ARE TO BE COMPACTED TO FORM A FIRM AND SMOOTH TRANSITION BETWEEN OLD AND NEW SURFACE GRADE. DO NOT APPLY HOT MIX ASPHALT ON A WET SURFACE.
11. UPON COMPLETION OF BACKFILLING, TEMPORARY PAVEMENT ON STREETS SHALL BE IN PLACE BY THE END OF WORK DAY.
12. TEMPORARY STREET RESTORATION IS INTENDED TO BE AN INTERIM MEASURE UNTIL CONDITIONS ALLOW FOR PERMANENT RESTORATION OF THE STREET. THE TOWN REALIZES THAT AT TIMES, TEMPORARY RESTORATION IS NECESSARY, SUCH AS, DURING THE WINTER SEASON WHEN THE ASPHALT PLANTS ARE CLOSED AND WHEN FREEZING TEMPERATURES MAKE PERMANENT RESTORATION NOT FEASIBLE OR WHEN TO MINIMIZE THE USE OF TEMPORARY RESTORATIONS WHEN POSSIBLY WORK UNDERTAKEN BEFORE NOVEMBER 1 SHALL BE PERMANENTLY RESTORED BEFORE THE FALL ASPHALT PLANT CLOSING. ONLY WORK UNDERTAKEN ON OR AFTER NOVEMBER 1 MAY BE CARRIED OVER TO PERMANENT RESTORATION IN THE FOLLOWING SPRING SEASON. ALL TEMPORARY RESTORATION PLACED DURING THE WINTER SEASON MUST BE PERMANENTLY RESTORED WITHIN FOUR (4) WEEKS OF SPRING ASPHALT PLANT OPENINGS, BUT NO LATER THAN MAY 15TH. THE WHITELAND TOWN COUNCIL AND STORM WATER MANAGEMENT BOARD MAY GRANT EXTENSIONS BEYOND MAY 15TH FOR PERMANENT RESTORATIONS WHEN REQUESTED IN WRITING AND ACCOMPANIED WITH A REPAIR SCHEDULE. INVENTORY OF EXISTING TEMPORARY RESTORATIONS, AND STATEMENT INDICATING THE REASON(S) FOR THE EXTENSION.

TOWN OF WHITELAND

811 INDIANA 811
549 MAN ST
WHITELAND, IN 46184

PLANNING/ZONING
WASTEWATER DEPARTMENT
WATER WORKS
FIRE DEPT.
POLICE DEPT.
STREET DEPT.

(317) 535-5531
(317) 535-7627
(317) 535-5531
(317) 535-8280
(317) 535-8100
(317) 535-5531

TYPICAL CONSTRUCTION
GUIDELINES AND DETAILS

DATE August 2013
SHEET 6 OF 12

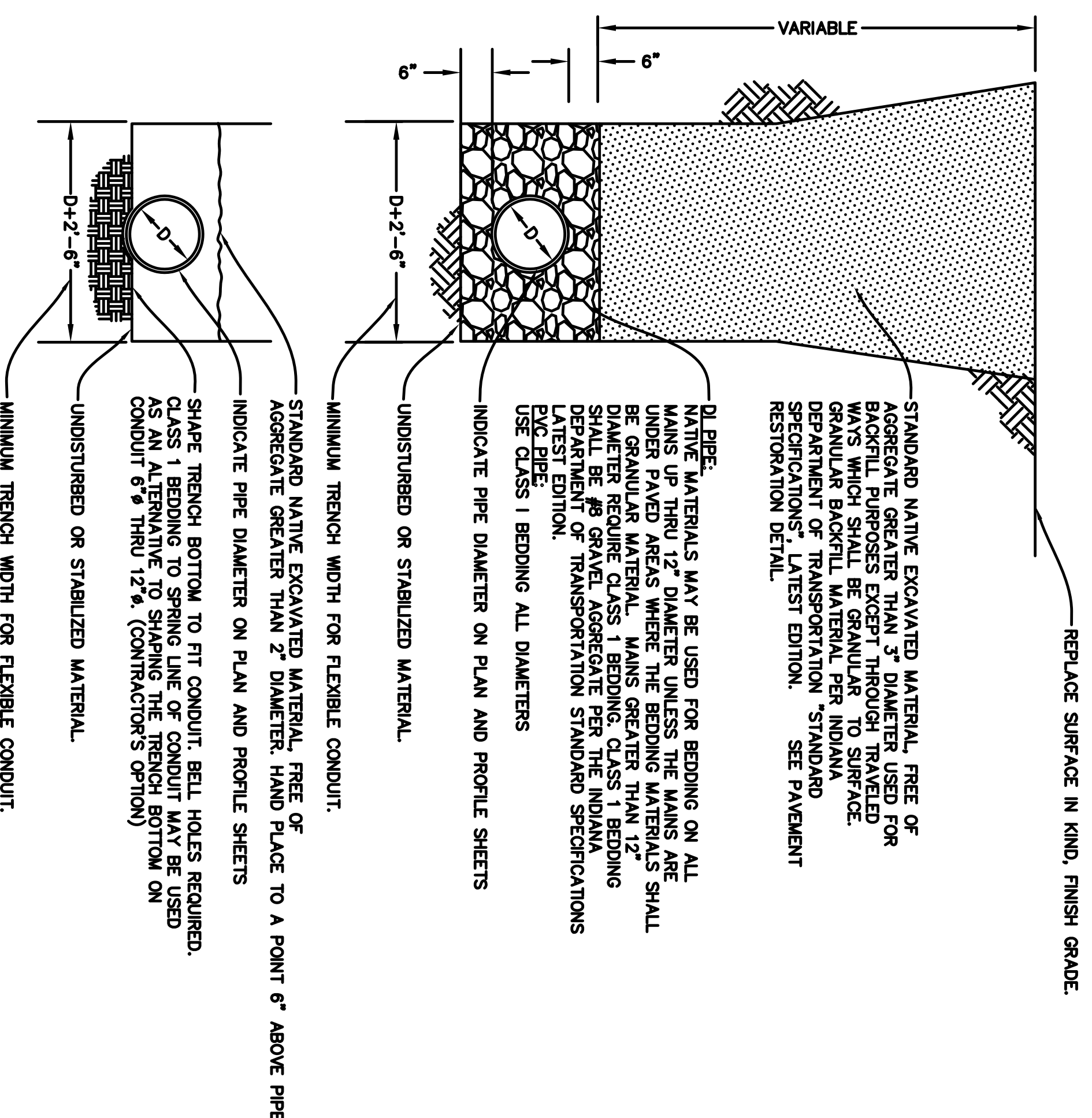
2 PERMANENT PAVEMENT RESTORATION

NOT TO SCALE

NOT TO SCALE

REVISIONS

DATE	DESCRIPTION	BY

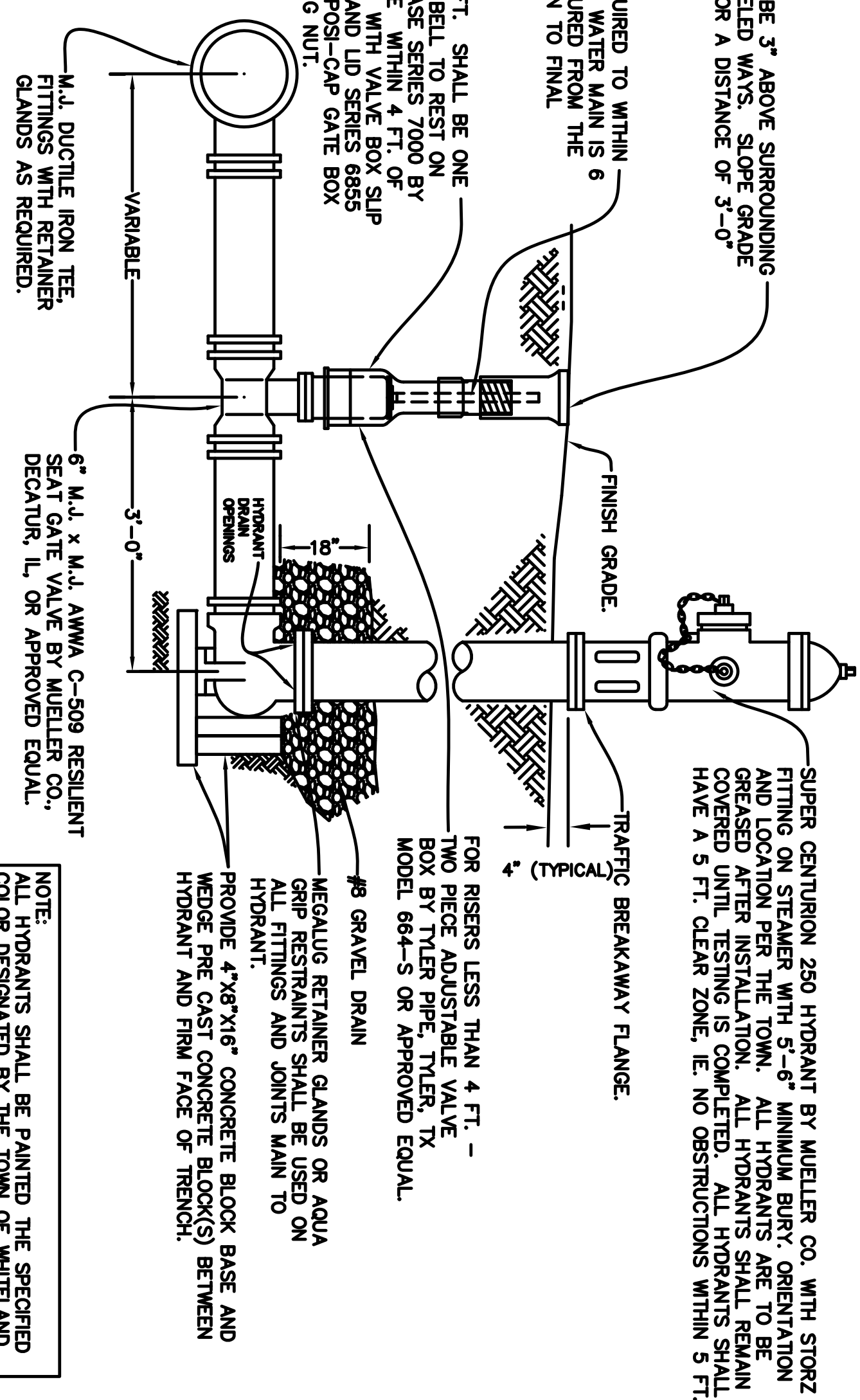


1 STANDARD BEDDING DETAIL
NOT TO SCALE

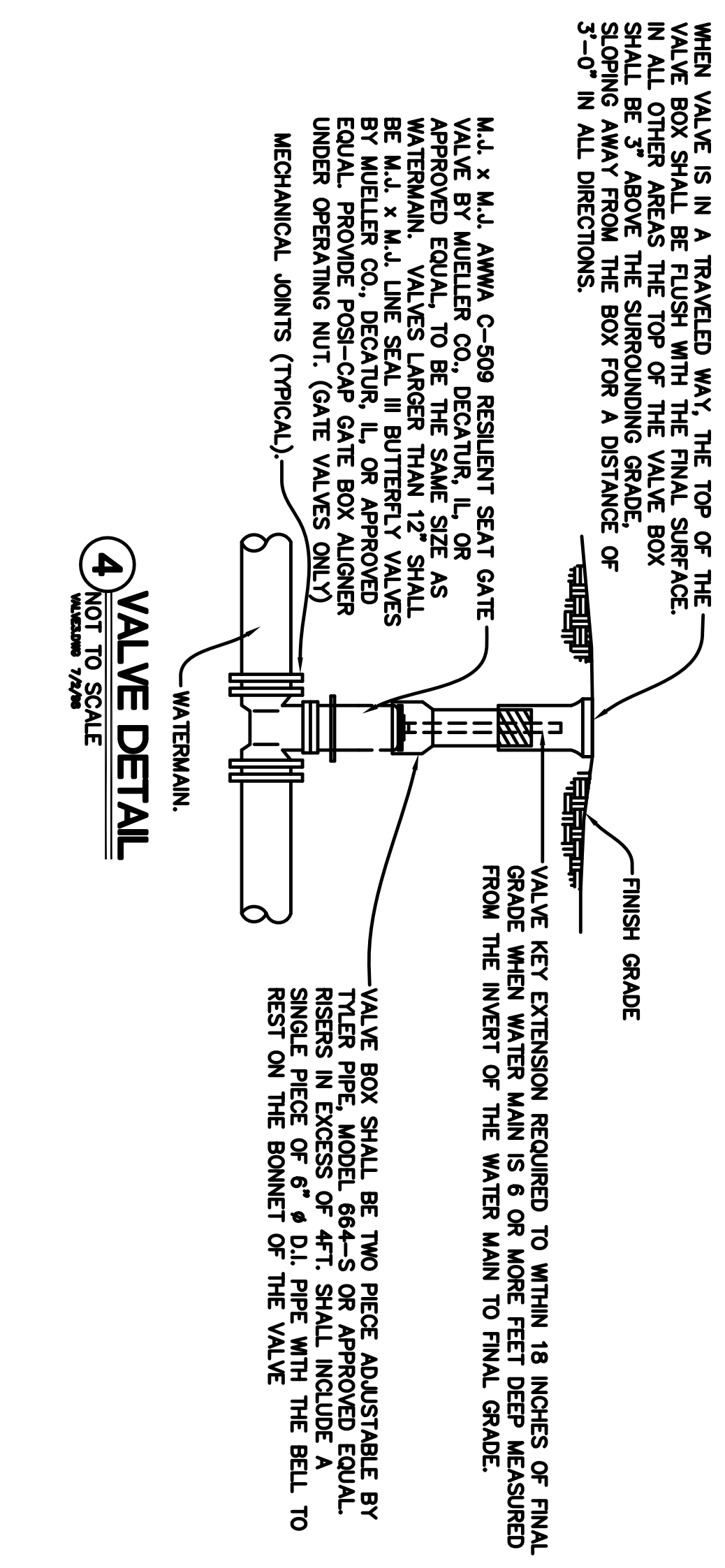
2 RESTRAINED JOINTS

DUCTILE IRON PIPE, CLAY SOIL, GRANULAR BEDDING	REQUIRED RESTRAINT IN FEET AT 6\"/>
6\"/>	
8\"/>	
10\"/>	
12\"/>	
14\"/>	
16\"/>	
18\"/>	
20\"/>	
24\"/>	

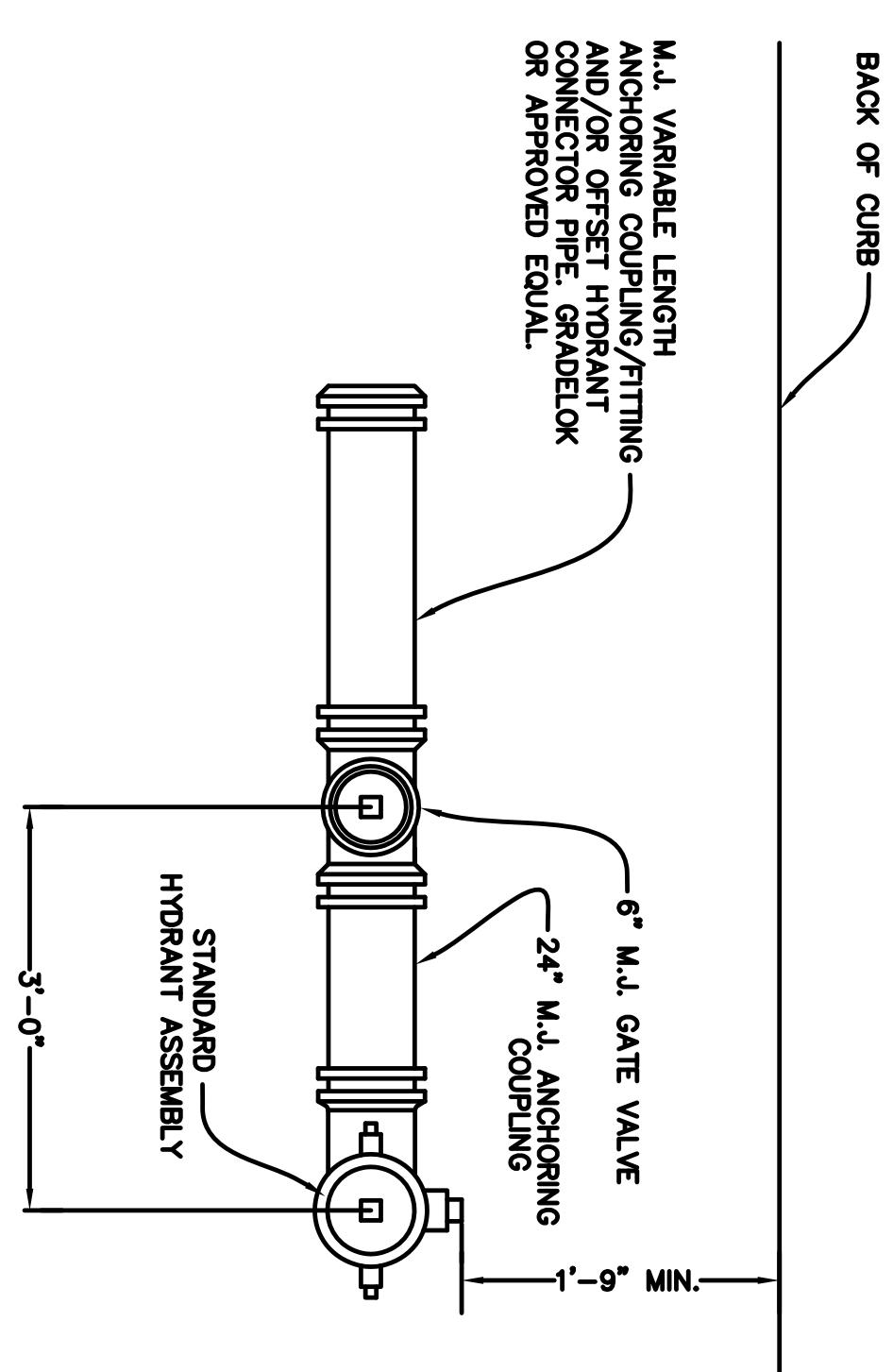
NOTE: FIRE HYDRANTS USED AS AIR RELEASE
1) PROVIDE POSITIVE SLOPE UPWARD FROM HYDRANT TEE TO FIRE HYDRANT BASE.
2) M.I. DUCTILE IRON PIPE AND FITTINGS WITH REMAINT GLANDS FOR EACH FITTING REQUIRED.
3) TIE INTO MAIN AT TOP OF PIPE.



3 FIRE HYDRANT DETAIL
NOT TO SCALE



4 VALVE DETAIL
NOT TO SCALE



5 HYDRANT DETAIL
NOT TO SCALE

NOTE:
ALL HYDRANTS SHALL BE PAINTED THE SPECIFIED COLOR DESIGNATED BY THE OWNER OF WHITELAND BASED UPON FLOW/PRESSURE READINGS.

TOWN OF WHITELAND

811 INDIANA 811

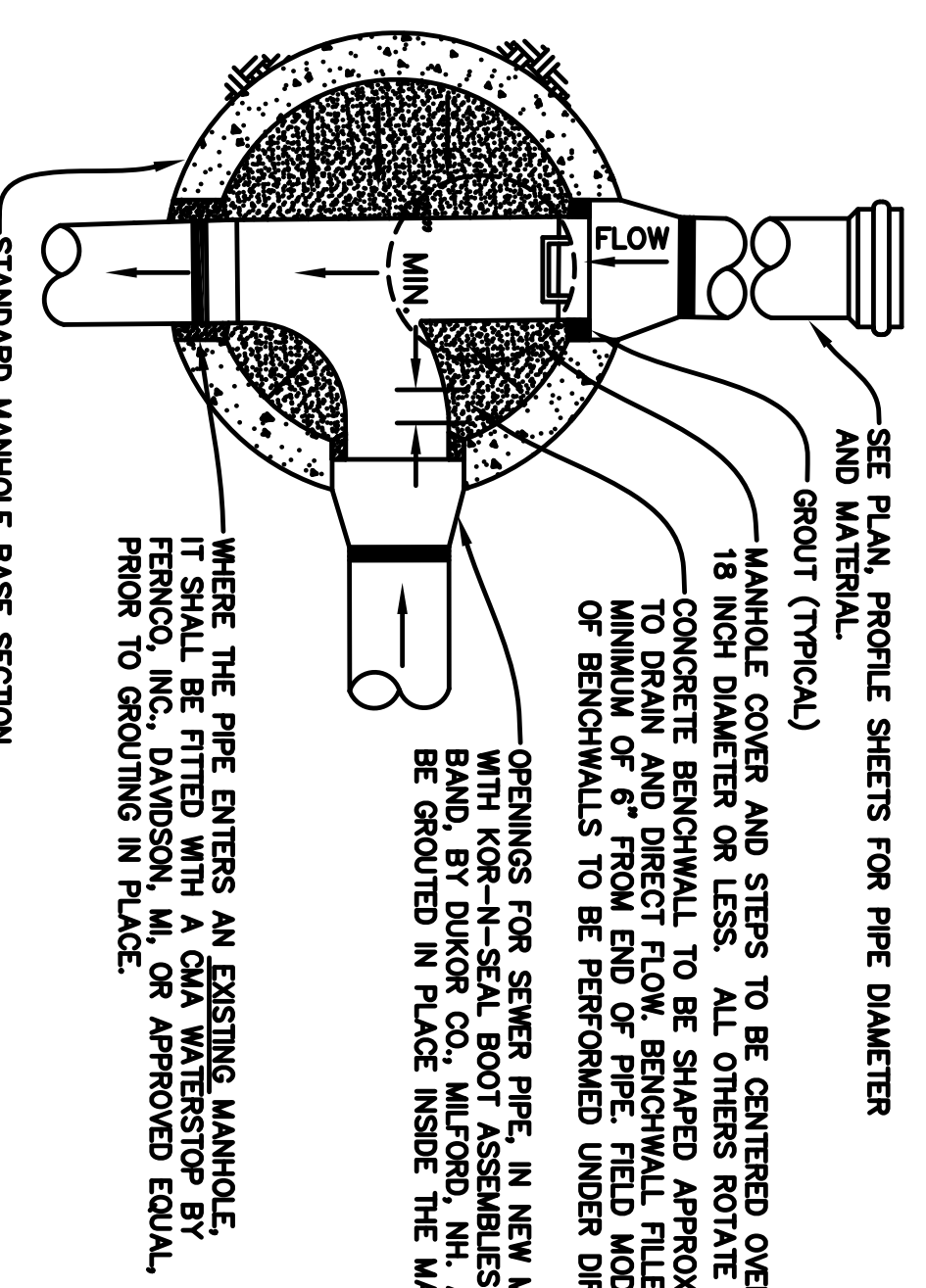
549 MAIN ST
WHITELAND, IN 46184

TYPICAL CONSTRUCTION
GUIDELINES AND DETAILS

DATE
August 2013

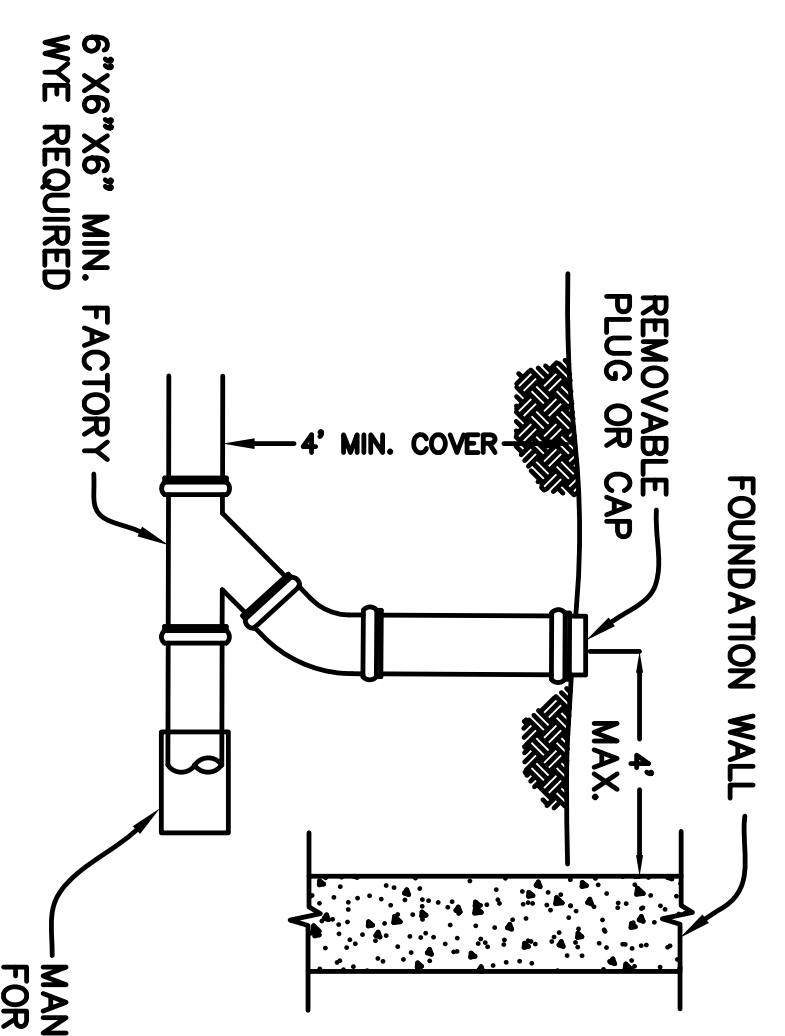
SHEET
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12

REVISIONS	DATE	DESCRIPTION	BY

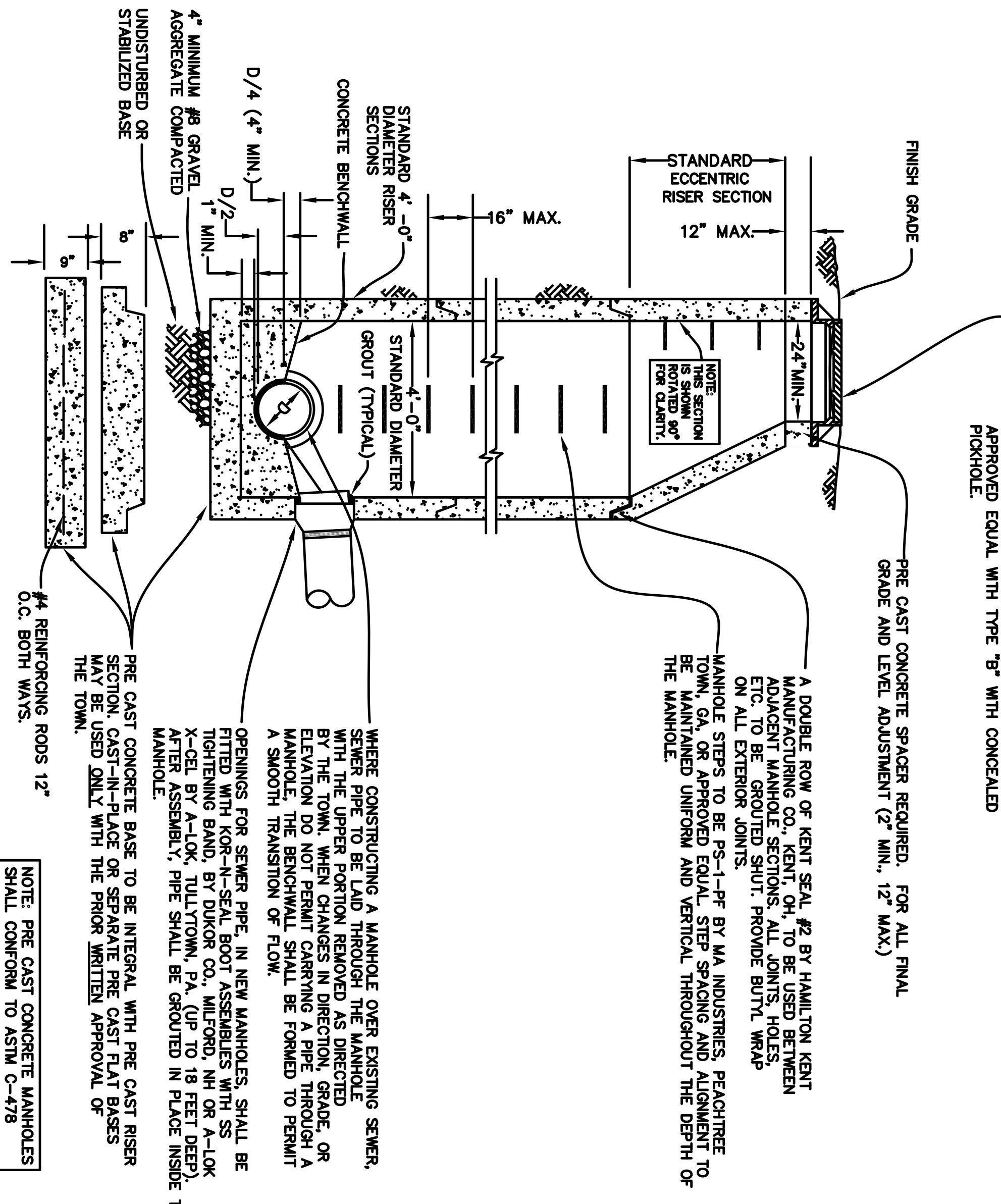


1 STANDARD SANITARY MANHOLE PLAN
NOT TO SCALE

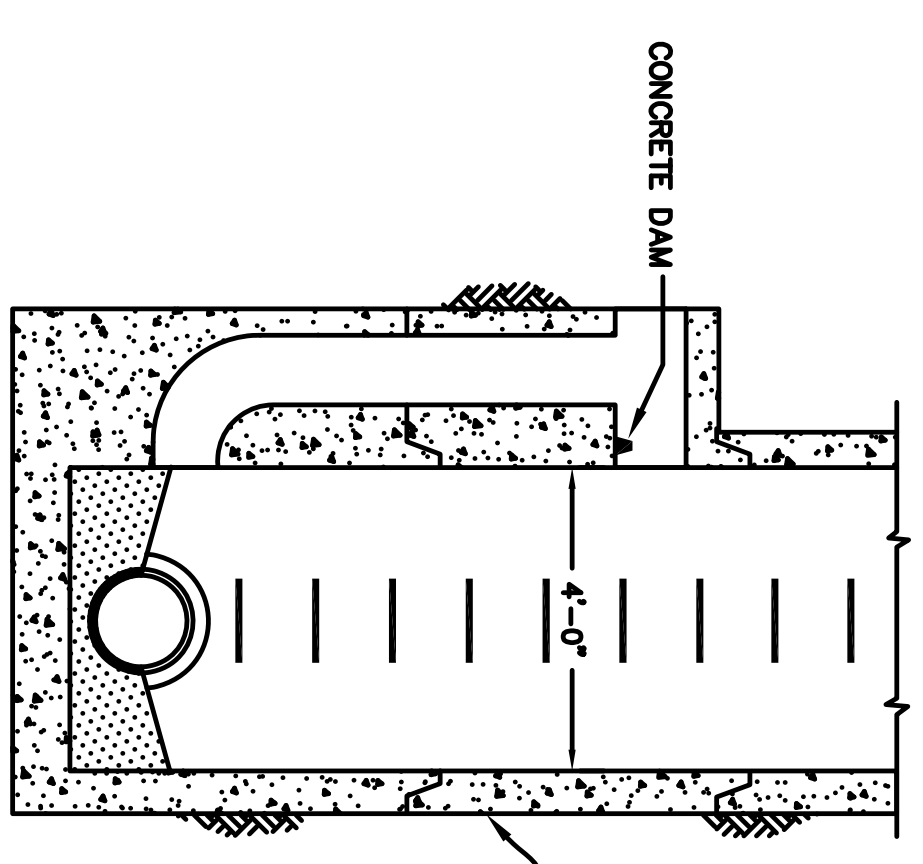
PIPE SIZE	SLOPE
6"	0.20%
10"	0.25%
12"	0.25%
15"	0.15%
18"	0.12%
24"	0.08%



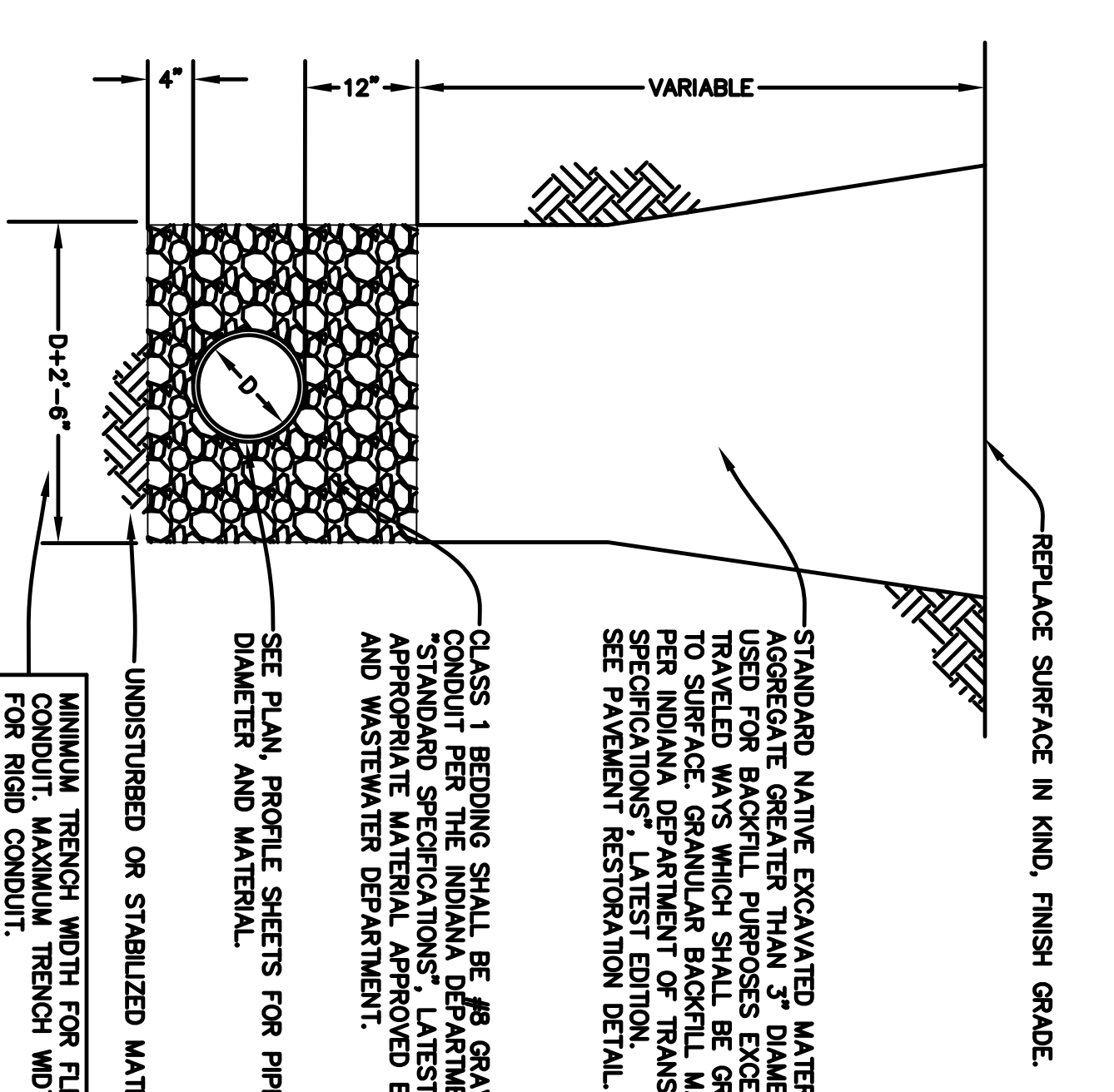
2 CLEAN-OUT DETAIL
NOT TO SCALE



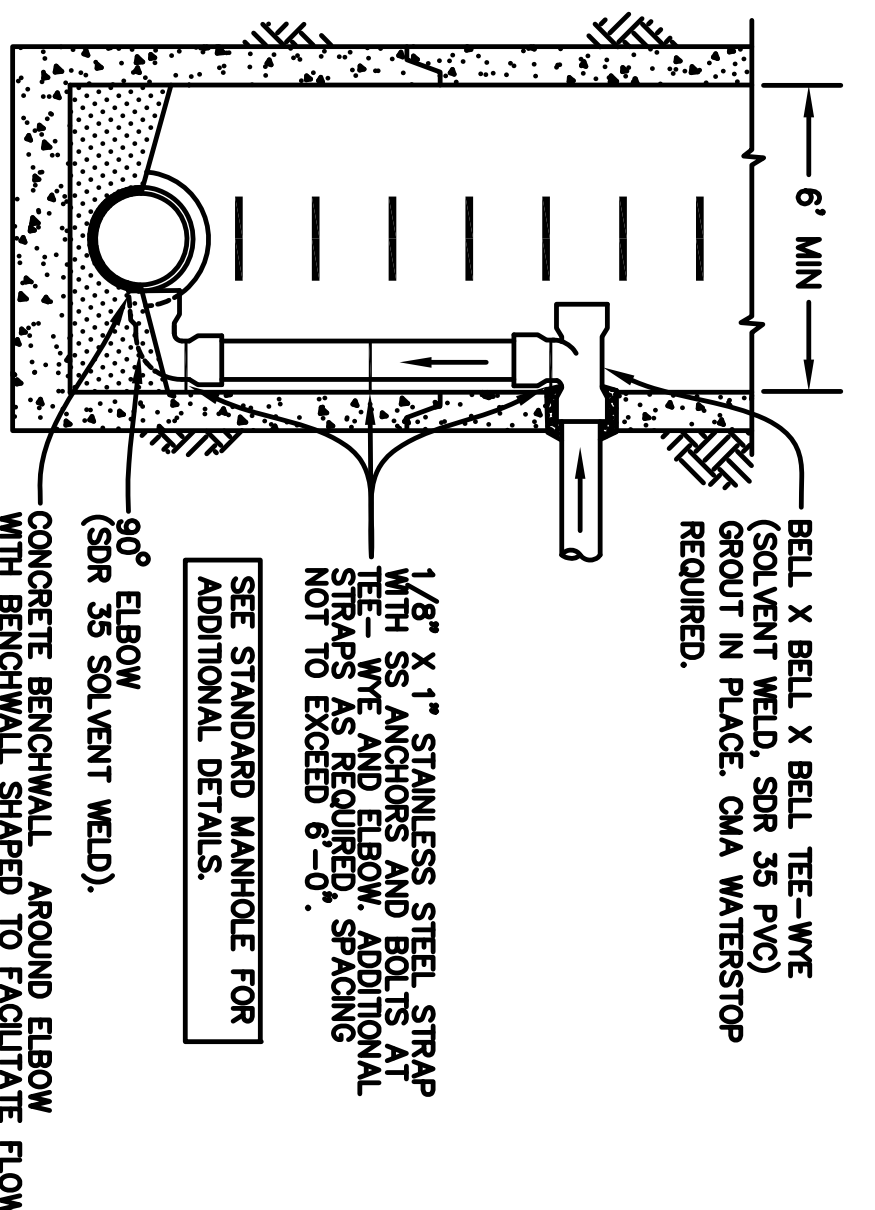
3 STANDARD SANITARY MANHOLE DETAIL
NOT TO SCALE



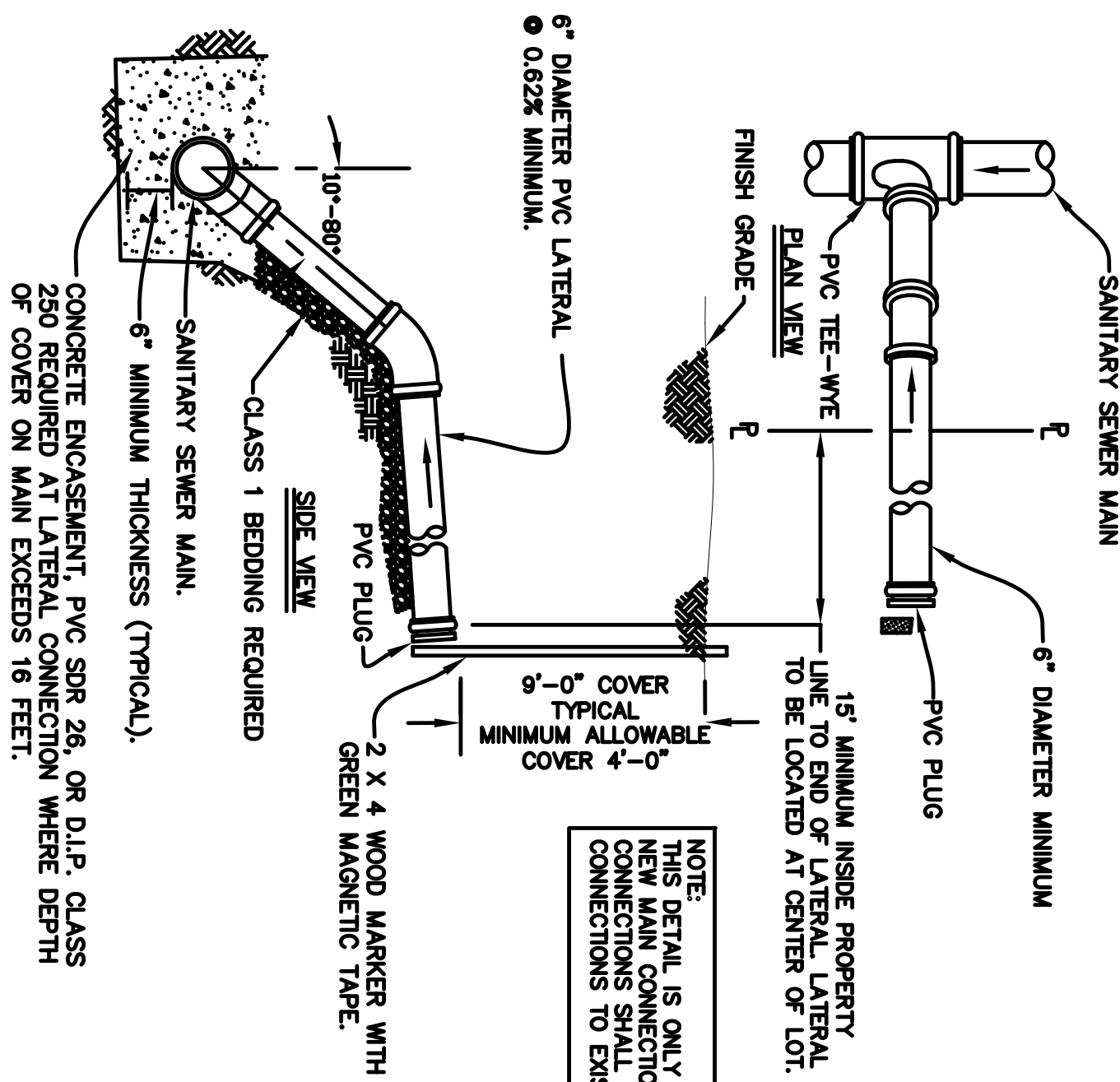
4 PRE CAST OUTSIDE DROP MANHOLE
NOT TO SCALE



5 STANDARD BEDDING DETAIL
NOT TO SCALE



7 INSIDE DROP MANHOLE DETAIL
(EXISTING MANHOLES ONLY)
NOT TO SCALE



6 LATERAL CONNECTION DETAIL
NOT TO SCALE

8 SANITARY SEWER NOTES

- SANITARY SEWERS TO BE POLY-VINYL CHLORIDE (PVC) SDR 35 PIPE AND SHALL MEET OR EXCEED ASTM D-3034 OR ASTM 679 AS APPLICABLE. JOINTS SHALL BE GASKETED, BELL AND SPIGOT TYPE WITH THE BELL MADE INTEGRAL WITH THE PIPE. SEE PLAN, PROFILE SHEETS FOR SIZES. SANITARY SEWERS TO BE SDR 26 PIPE FOR DEPTH 18" OR GREATER.
- SANITARY SEWER LATERALS FOR HOUSE CONNECTIONS SHALL BE 6" DIAMETER PVC SDR 35 CONFORMING TO ASTM D-3034, LAD AT A MINIMUM SLOPE OF 0.62% ENDS TO BE PLUGGED. JOINTS SHALL BE GASKETED BELL AND SPIGOT TYPE WITH THE BELL MADE INTEGRAL. PIPE LATERALS LONGER THAN 100' REQUIRE A CLEANOUT EVERY 100'.
- LATERAL CONNECTIONS TO AN EXISTING SEWER SHALL BE MADE WITH A BOOT-N-SADDLE WITH STAINLESS STEEL STRAPS AND APPROPRIATE RUBBER FITTING.
- THE COMPLETED SANITARY SEWER SHALL BE HIGH PRESSURE WATER JET CLEANED AND SUBJECTED TO AN AIR TEST CONFORMING TO ASTM F1417-92. A DEFLECTION TEST SHALL BE PERFORMED WITH A "GO-NO-GO" MANDRELL (95%) ACCORDING TO IDEM STANDARDS. CLEANING, TELEVISION AND TESTING SHALL BE PERFORMED A MINIMUM OF 30 DAYS AFTER INSTALLATION AND WITNESSED BY THE TOWN. ALL COSTS OF CLEANING AND TESTING ARE TO BE BORNE BY THE CONTRACTOR.
- MANHOLES SHALL BE AIR TESTED IN ACCORDANCE WITH ASTM G1244-93. STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY THE NEGATIVE AIR PRESSURE (VACUUM) TEST. VACUUM TESTING SHALL BE PERFORMED FROM THE TOP OF THE CASTING DOWN.
- VERTICAL SEPARATION AND 10'-0" HORIZONTAL SEPARATION TO BE MAINTAINED BETWEEN WATER MAINS HYDRANTS AND SEWERS (SANITARY AND STORM).
- TRENCHES UNDER PAVED AREAS (EXCLUDING SIDEWALKS) SHALL BE BACKFILLED WITH GRANULAR MATERIAL PER INDIANA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", LATEST EDITION, AND COMPACTED IN LIFTS. GRANULAR MATERIAL TO EXTEND 5 FEET BEYOND THE LIMITS OF THE PAVED AREA WITH A 1:1 SLOPE TO THE BOTTOM OF THE TRENCH.
- ALL SEWER LINES SHALL HAVE A 0.1 FT. DROP THROUGH THE MANHOLE WHERE SEWER LINES CHANGE DIRECTION. THE MANHOLE INVERT ELEVATION SHALL DROP 0.25 FEET (TYPICAL) THROUGH THE MANHOLE.
- SEWER PERMIT AND TOWN INSPECTION REQUIRED FOR ALL CONNECTIONS TO STORM AND SANITARY SEWER SYSTEMS. SEWER PERMIT REQUIRED ON SITE DURING ANY SEWER CONSTRUCTION.
- TOP OF MANHOLE FRAMES TO BE SET AT PROPOSED YARD OR SIDEWALK GRADE. WHEN LOCATED IN FRONT YARD AREA OF LOT OR RIGHT-OF-WAY, WHEN MANHOLE IS IN A PAVED AREA, THE TOP OF THE FRAME SHALL BE LUSH WITH THE FINISH SURFACE OF THE DRIVEWAY. THE GRANULAR FILL SHALL BE LUSH WITH THE FINISH SURFACE OF THE DRIVEWAY. THE FRAME SHALL BE ONE FOOT ABOVE THE SURROUNDING GRADE. SLOPING AWAY FROM THE MANHOLE FOR A DISTANCE OF 6'-0" IN ALL DIRECTIONS.
- WHERE PROPRIETARY EQUIPMENT IS SPECIFIED "OR APPROVED EQUAL" IS IMPLIED. ALL PROPOSALS FOR SUBSTITUTION SHALL BE SUBMITTED TO THE TOWN IN WRITING FOR THEIR APPROVAL.
- MARK THE LOCATIONS OF THE SANITARY SEWER LATERALS BY STAMPING OR CUTTING "SS" IN THE CURB. SIMILARLY, STAMP OR CUT "H" IN THE CURB TO MARK THE LOCATIONS OF MANHOLES.

TOWN OF WHITELAND

811 INDIANA 911	549 MAN ST	DATE
(317) 535-5531 PLANNING/ZONING	WHITELAND, IN 46184	August 2013
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(317) 535-5531 WATER WORKS		
(317) 535-8280 FIRE DEPT.		
(317) 535-8100 POLICE DEPT.		
(317) 535-5531 STREET DEPT.		

TYPICAL CONSTRUCTION GUIDELINES AND DETAILS

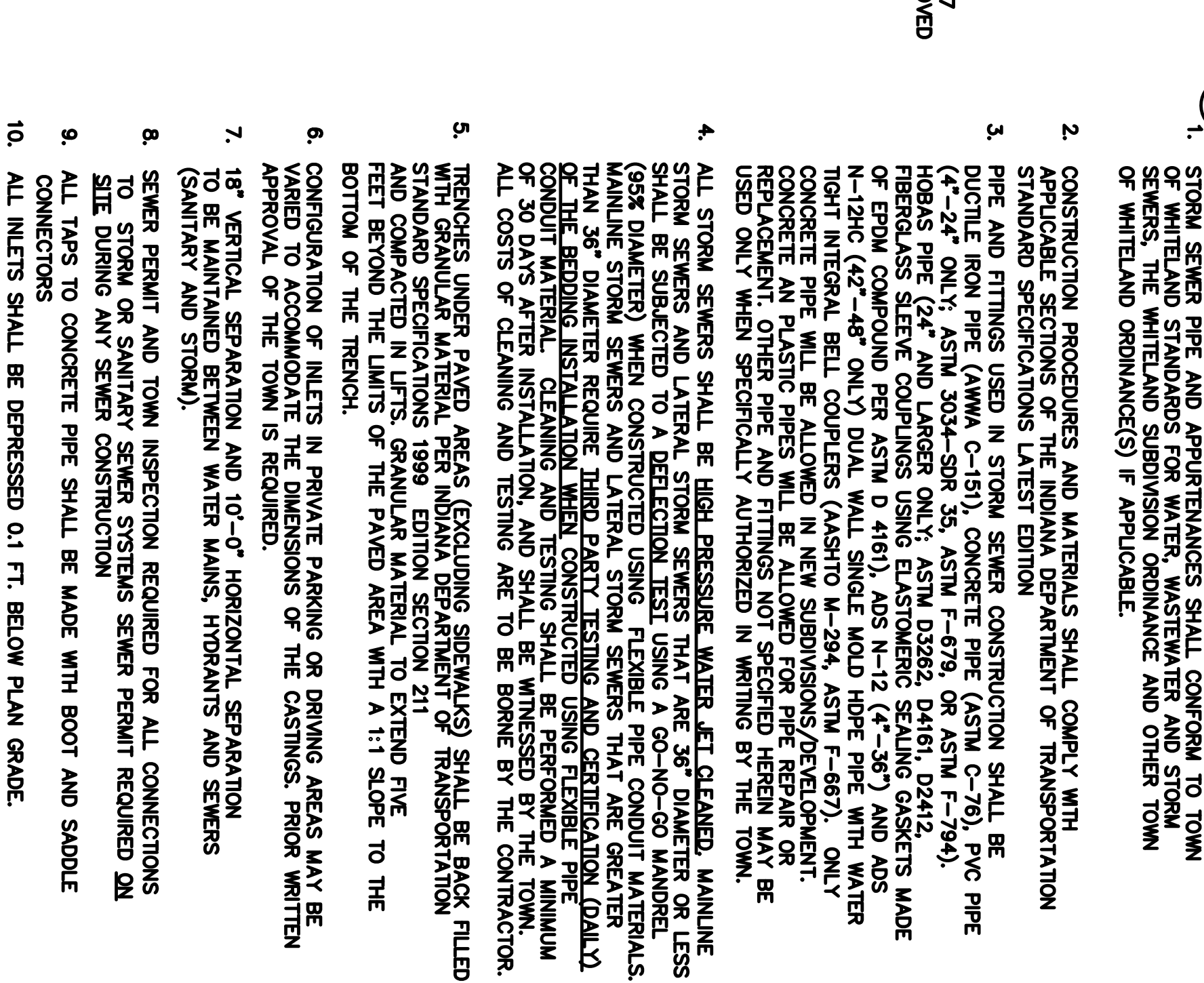
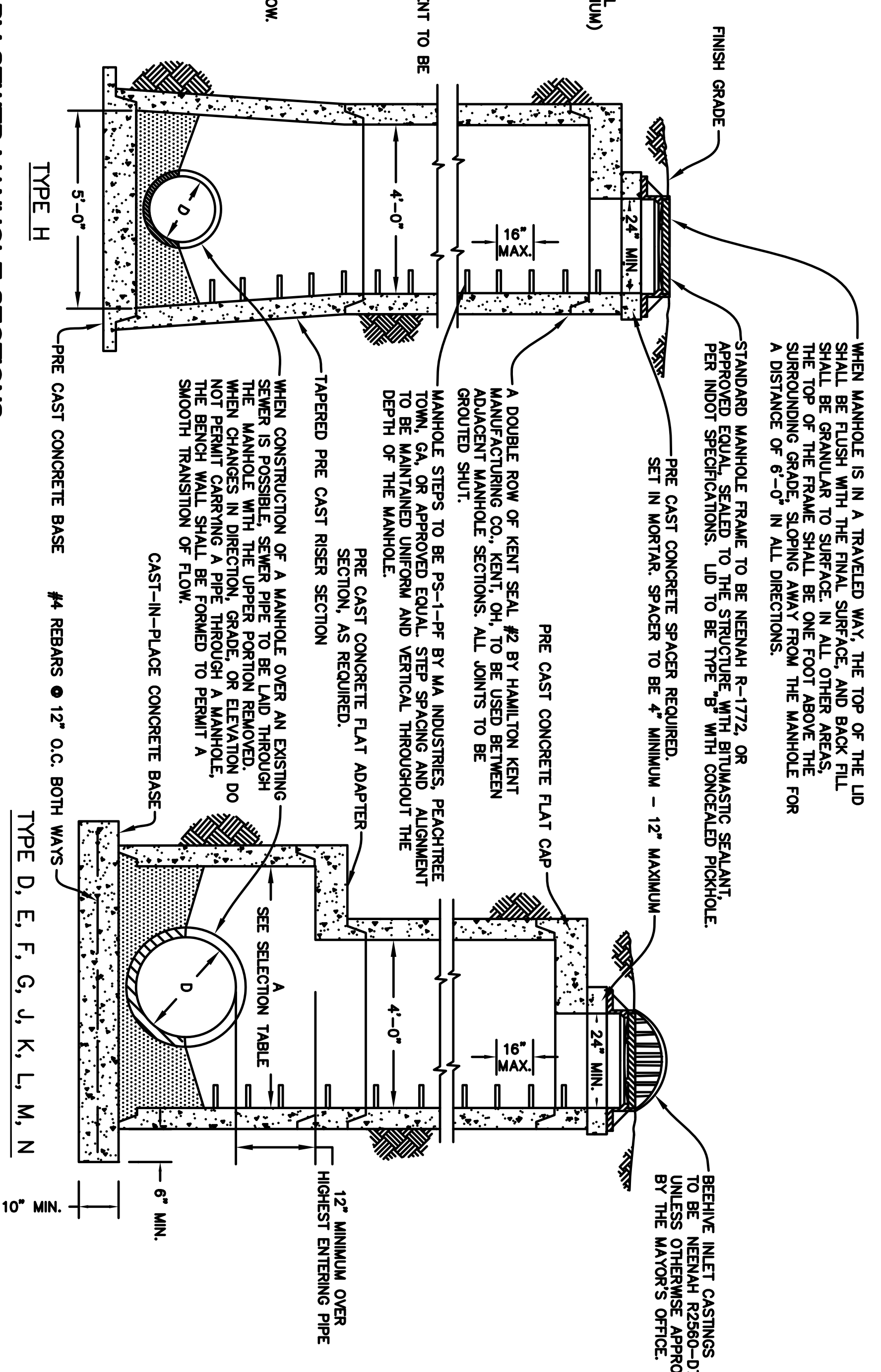
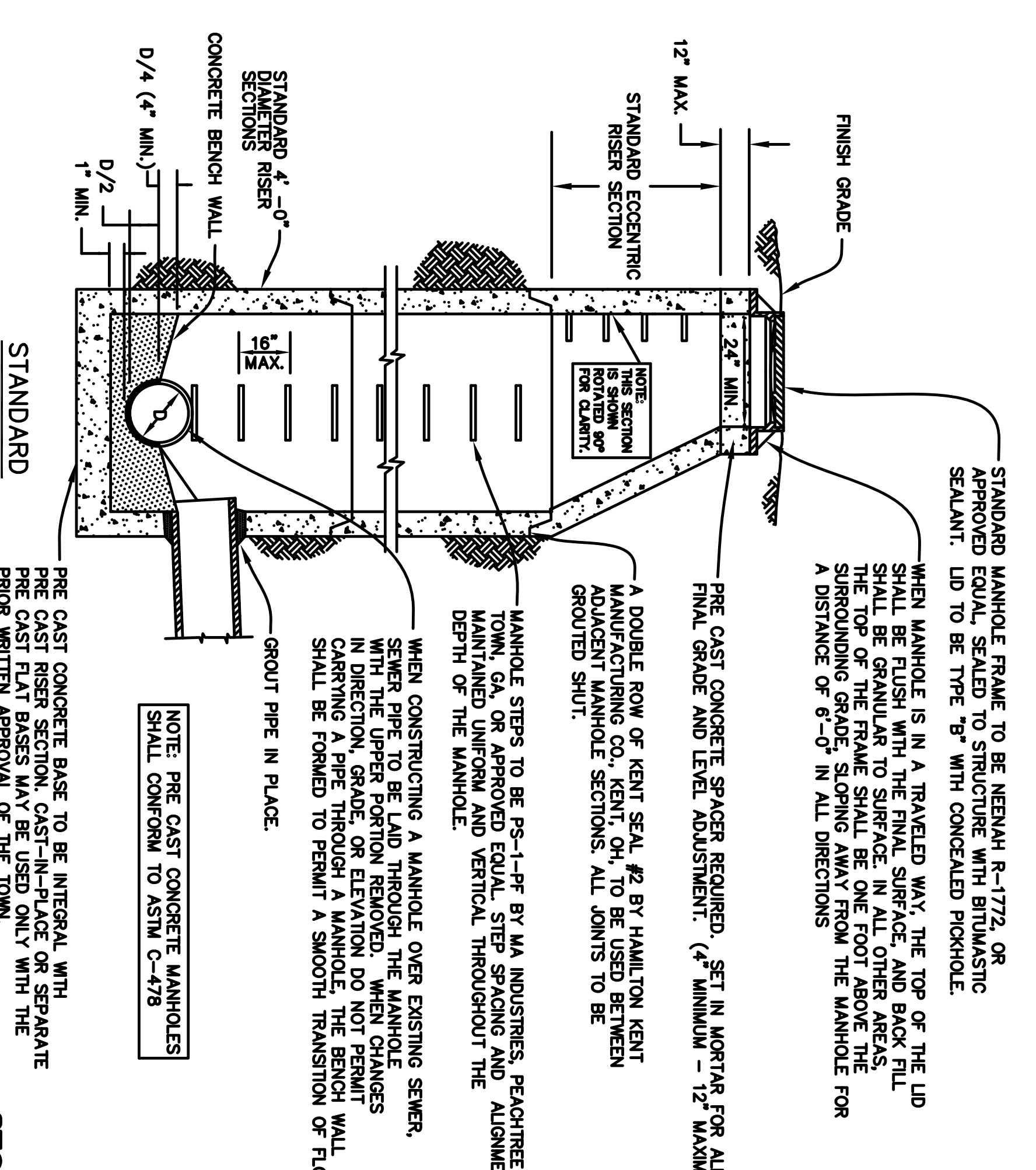
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REVISIONS

DATE	DESCRIPTION	BY

5 STORM SEWER NOTES

- STORM SEWER PIPE AND APPURTENANCES SHALL CONFORM TO TOWN OF WHITELAND STANDARDS FOR WATER, WASTEWATER AND STORM SEWERS, THE WHITELAND SUBDIVISION ORDINANCE AND OTHER TOWN OF WHITELAND ORDINANCES IF APPLICABLE.
- CONSTRUCTION PROCEDURES AND MATERIALS SHALL COMPLY WITH APPLICABLE SECTIONS OF THE INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS LATEST EDITION.
- PIPE AND FITTINGS USED IN STORM SEWER CONSTRUCTION SHALL BE DUCTILE IRON PIPE (AWWA C-151), CONCRETE PIPE (ASTM C-70), PVC PIPE (4"-24" ONLY, ASTM 3034-SR 35, ASTM F-679, OR ASTM F-794), HDPE PIPE (24" AND LARGER ONLY), ASTM D3282, D4161, D2412, FIBERGLASS SLEEVE COUPLERS USING ELASTOMERIC SEALING GASKETS MADE OF EPDM COMPOUND PER ASTM D 4161, AOS N-12 (4"-36") AND AOS N-12HC (42"-48" ONLY) DUAL WALL SINGLE MOULD HOPE PIPE WITH WATER TIGHT INTEGRAL BELL COUPLERS (ASHSTO M-294, ASTM F-667). ONLY CONCRETE PIPE WILL BE ALLOWED IN NEW SUBDIVISIONS/DEVELOPMENT. CONCRETE PIPE WILL BE ALLOWED FOR PIPE REPAIR OR REPLACEMENT. OTHER PIPE AND FITTINGS NOT SPECIFIED HEREIN MAY BE USED ONLY WHEN SPECIFICALLY AUTHORIZED IN WRITING BY THE TOWN.
- ALL STORM SEWERS SHALL BE HIGH PRESSURE WATER JET CLEANED. MAINLINE STORM SEWERS AND LATERAL STORM SEWERS THAT ARE 36" DIAMETER OR LESS SHALL BE SUBJECT TO A DEFLECTION TEST USING A GO-NO-GO MANHOLE (9X3 DIAMETER) WHEN CONSTRUCTED USING FLEXIBLE PIPE CONDUIT MATERIALS. MAINLINE STORM SEWERS AND LATERAL STORM SEWERS THAT ARE GREATER THAN 36" DIAMETER REQUIRE THIRD PARTY TESTING AND CERTIFICATION (DUALY) OF THE BEDDING, INSTALLATION AND CONSTRUCTION USING FLEXIBLE PIPE CONDUIT MATERIALS. TESTING SHALL BE CONDUCTED WITHIN A MINIMUM OF 30 DAYS AFTER INSTALLATION AND SHALL BE WITNESSED BY THE TOWN. ALL COSTS OF CLEANING AND TESTING ARE TO BE BORNE BY THE CONTRACTOR.
- TRENCHES UNDER PAVED AREAS (EXCLUDING SIDEWALKS) SHALL BE BACK FILLED WITH GRANULAR MATERIAL PER INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS 1999 EDITION SECTION 211 AND COMPACTED IN LIFTS. GRANULAR MATERIAL TO EXTEND FIVE FEET BEYOND THE LIMITS OF THE PAVED AREA WITH A 1:1 SLOPE TO THE BOTTOM OF THE TRENCH.
- CONFIGURATION OF INLETS IN PRIVATE PARKING OR DRIVING AREAS MAY BE VARYED TO ACCOMMODATE THE DIMENSIONS OF THE CASTINGS. PRIOR WRITTEN APPROVAL OF THE TOWN IS REQUIRED.
- VERTICAL SEPARATION AND 10'-0" HORIZONTAL SEPARATION (SANITARY AND STORM).
- SEWER PERMIT AND TOWN INSPECTION REQUIRED FOR ALL CONNECTIONS TO STORM OR SANITARY SEWER SYSTEMS SEWER PERMIT REQUIRED ON SITE DURING ANY SEWER CONSTRUCTION.
- ALL TAPS TO CONCRETE PIPE SHALL BE MADE WITH BOOT AND SADDLE CONNECTIONS.
- ALL INLETS SHALL BE DERESSED 0.1 FT. BELOW PLAN GRADE.
- ALL SEWER LINES SHALL HAVE 0.1 FT. DROP THROUGH MANHOLES.
- CASTINGS SHALL BE CENTERED ON OPENING IN STRUCTURES.
- MINIMUM 4" OPENING REQUIRED ON BACK OF CURB INLET CASTING.
- TOP OF MANHOLE FRAMES TO BE SET AT PROPOSED YARD OR SIDEWALK GRADE WHEN LOCATED IN FRONT AREA OF LOT OR RIGHT OF WAY.
- BICYCLE SAFE GRATES REQUIRED IN PAVED AREAS EXCLUDING, PAVED FLOW LINES IN SWALES OR DETENTION AREAS.
- ANNUAL GUARDS SHALL BE PERMANENTLY INSTALLED ON ALL PIPE END SECTIONS 18" OR LARGER IN DIAMETER. GUARDS SHALL HAVE A MAXIMUM CLEAR OPENING OF 4" AND BE REMOVABLE.
- IF ANY EXISTING FIELD TILE SYSTEMS ARE ENCOUNTERED DURING THE CONSTRUCTION PROCESS THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECONSTRUCTING THE TILE TO ITS ORIGINAL CONDITIONS OR CONNECT IT INTO THE PROPOSED STORM DRAINAGE SYSTEM.
- WHENEVER PROPRIETARY EQUIPMENT IS SPECIFIED "OR APPROVED EQUAL" IS IMPLIED, ALL PROPOSALS FOR SUBSTITUTION SHALL BE SUBMITTED TO THE TOWN IN WRITING FOR THEIR APPROVAL.

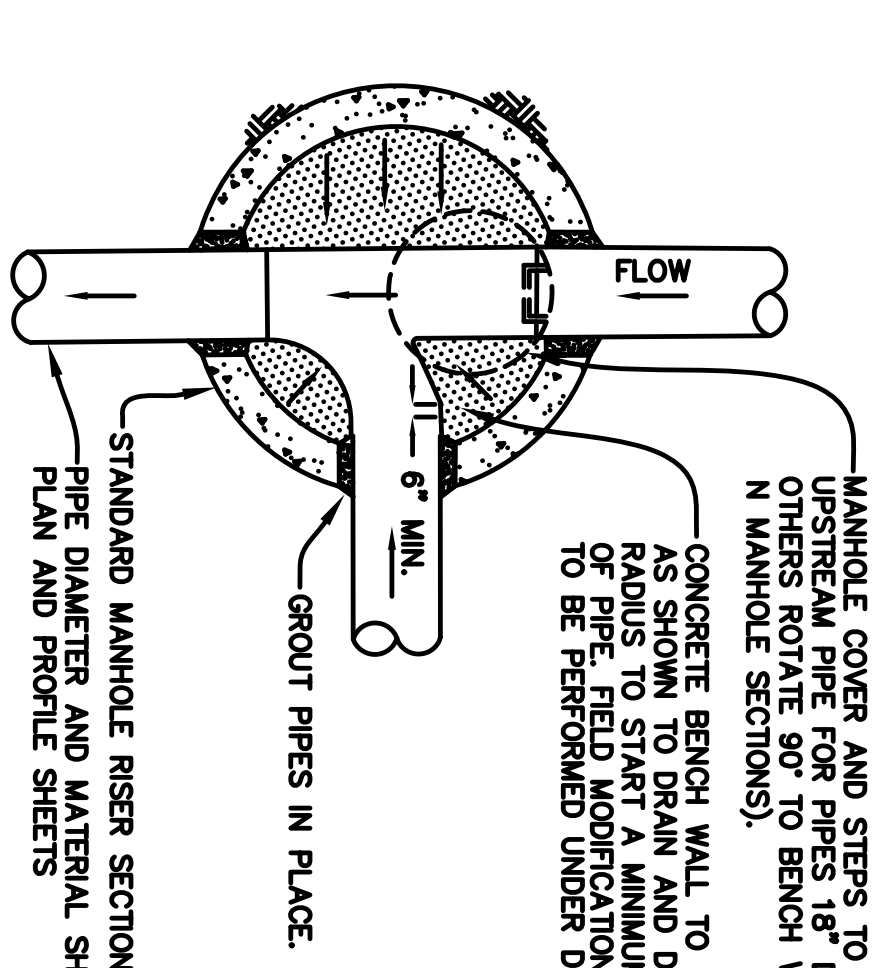


1 STORM SEWER MANHOLE SECTIONS

NOT TO SCALE

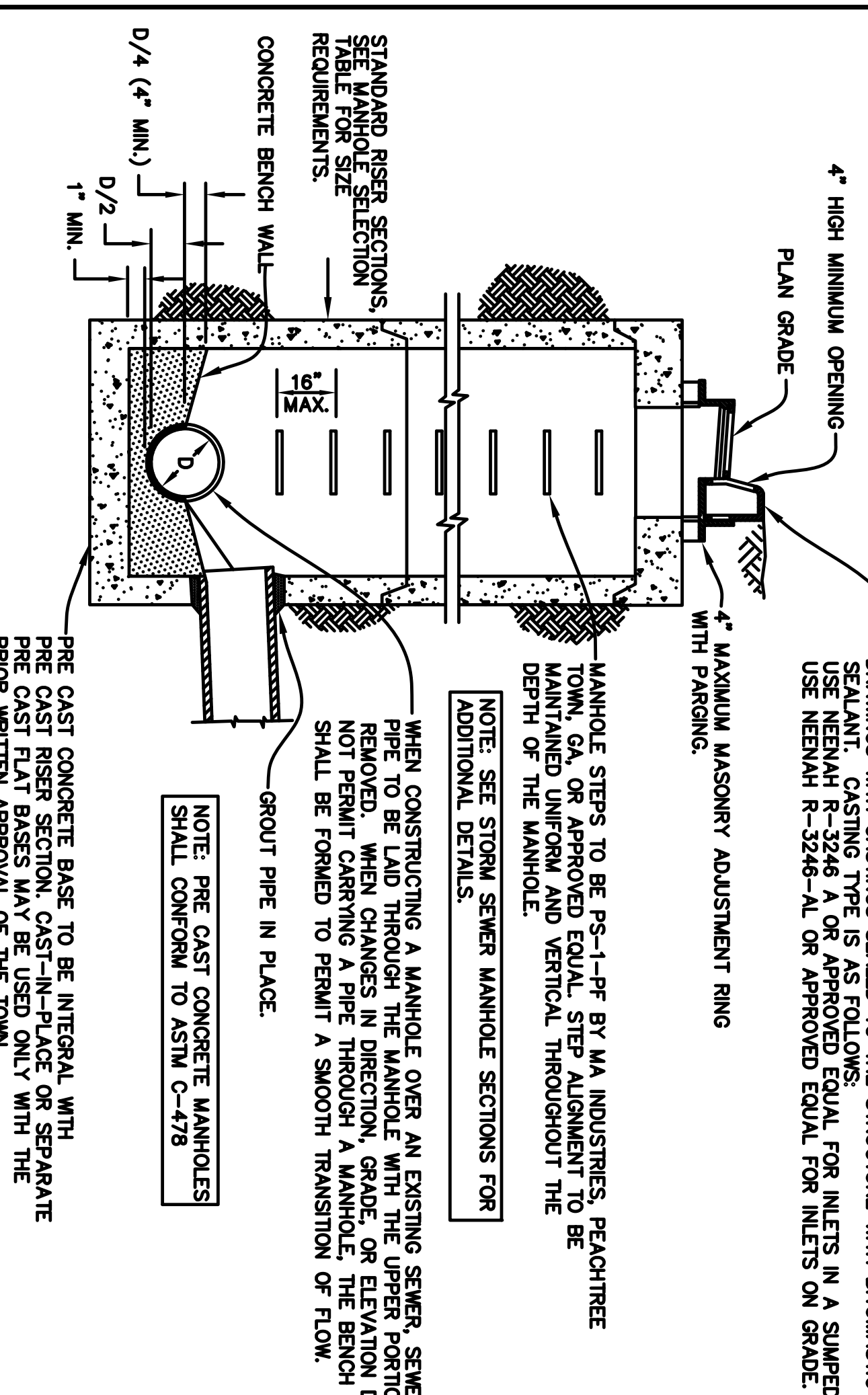
TYPE	PIPE DIAMETER D	RISER DIAMETER A	MAXIMUM PIPE SIZE FOR MAIN LINE	MAXIMUM PIPE SIZE 90° TO MAIN LINE
STANDARD	UP TO 24"	48"	24"	24"
H	24"-36"	--	36"	30"
J	24"-36"	60"	36"	30"
K	36"-48"	72"	48"	36"
L	48"-54"	96"	54"	48"
M	54"-72"	102"	72"	66"
N	72"-84"	108"	84"	72"

TYPE	PIPE DIAMETER D	WIDTH (MIN) A
STANDARD	UP TO 24"	48"
D	27"-42"	60"
E	48"-60"	78"
F	66"-84"	108"
G	90"-108"	132"



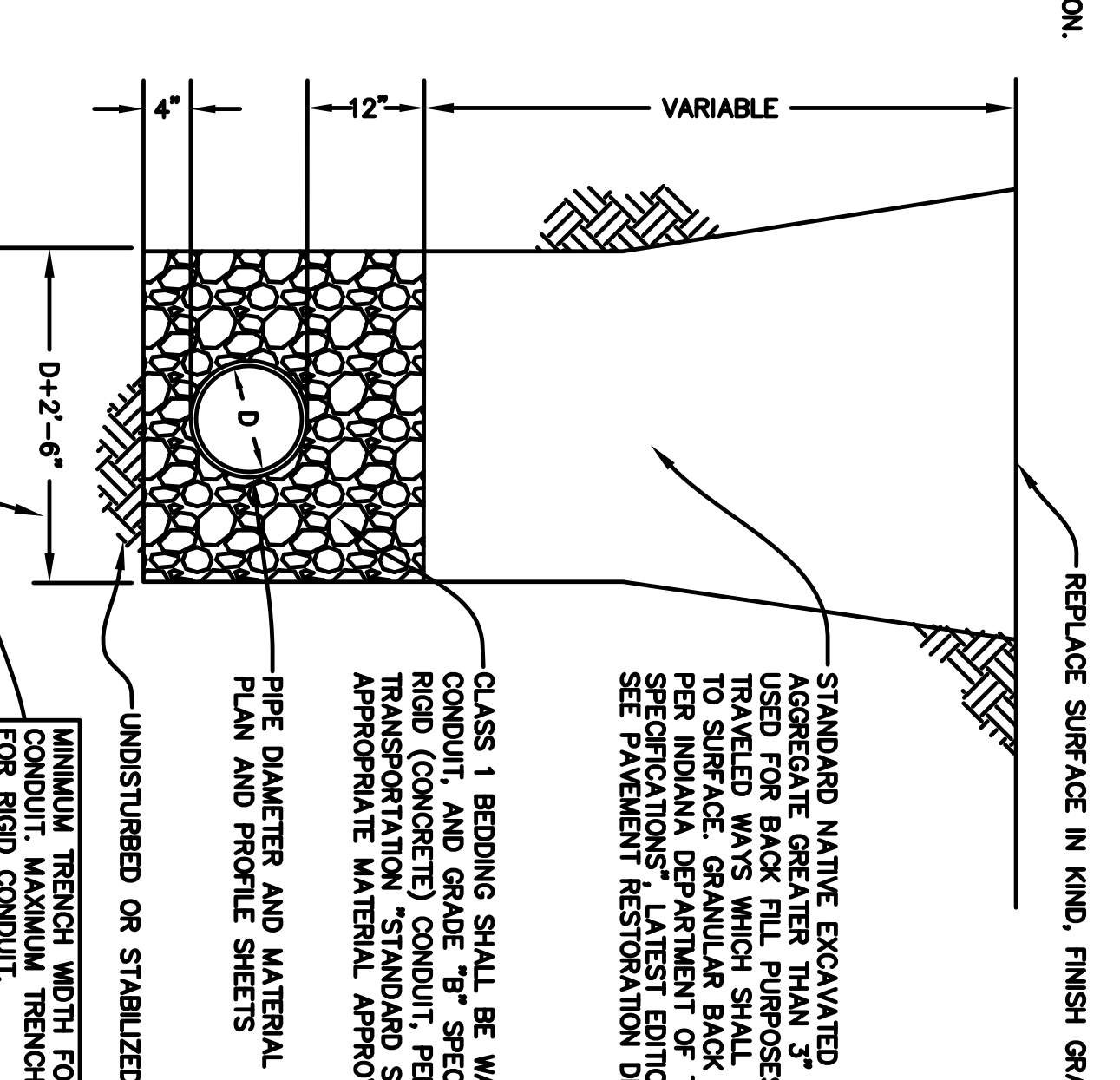
4 STORM SEWER MANHOLE PLAN

NOT TO SCALE



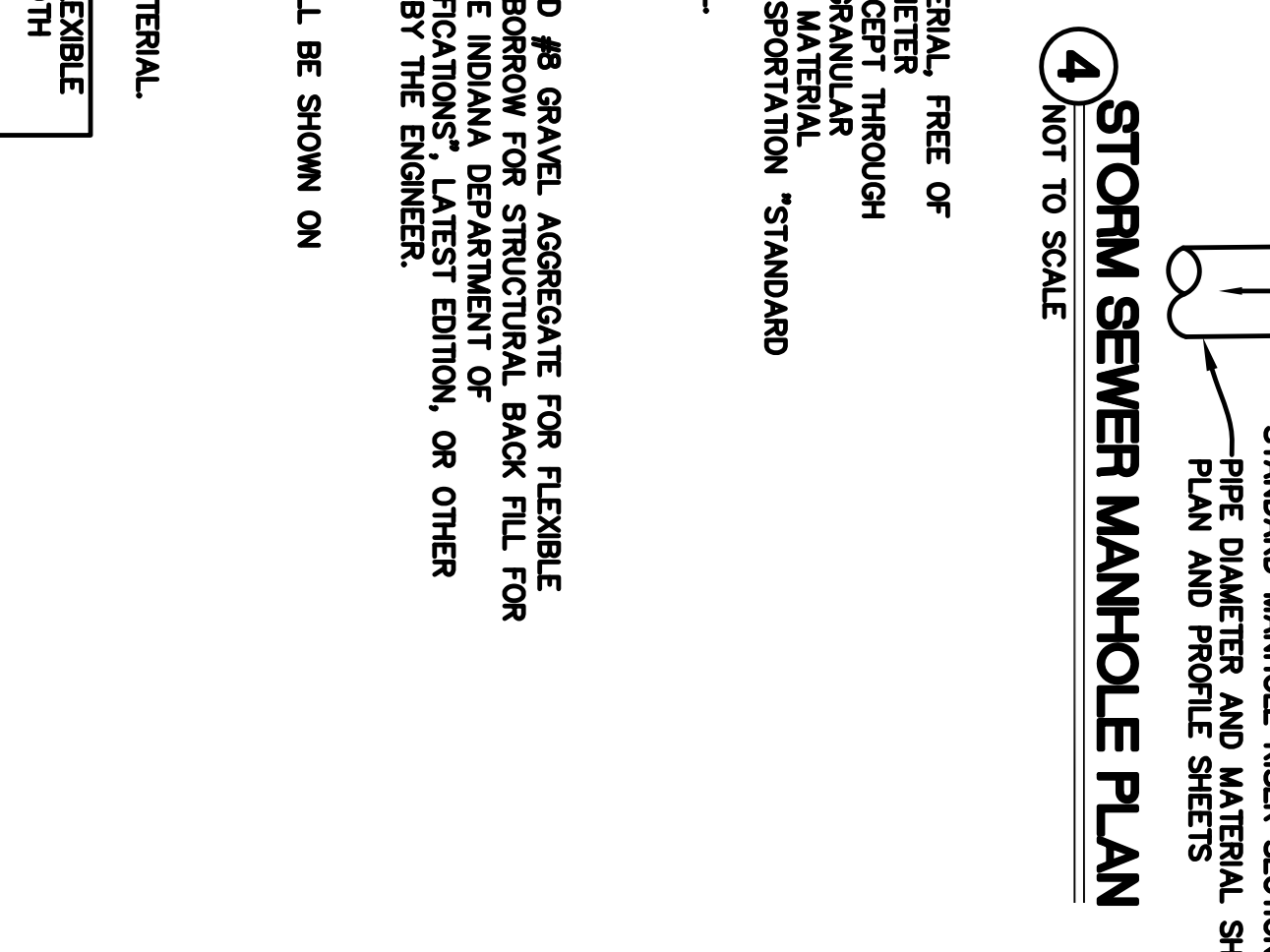
2 STORM SEWER MANHOLE - INLET

NOT TO SCALE



3 STANDARD BEDDING DETAIL

NOT TO SCALE



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**549 MAN ST
 WHITELAND, IN 46184**

**TYPICAL CONSTRUCTION
 GUIDELINES AND DETAILS**

DATE: August 2013
 SHEET: 11 OF 12

