

LE AN HURST ROAD SANITARY SEWER REHABILITATION (PROJECT NO. 2019027) MSD OF BUNCOMBE COUNTY

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SEPARATION STATEMENT:

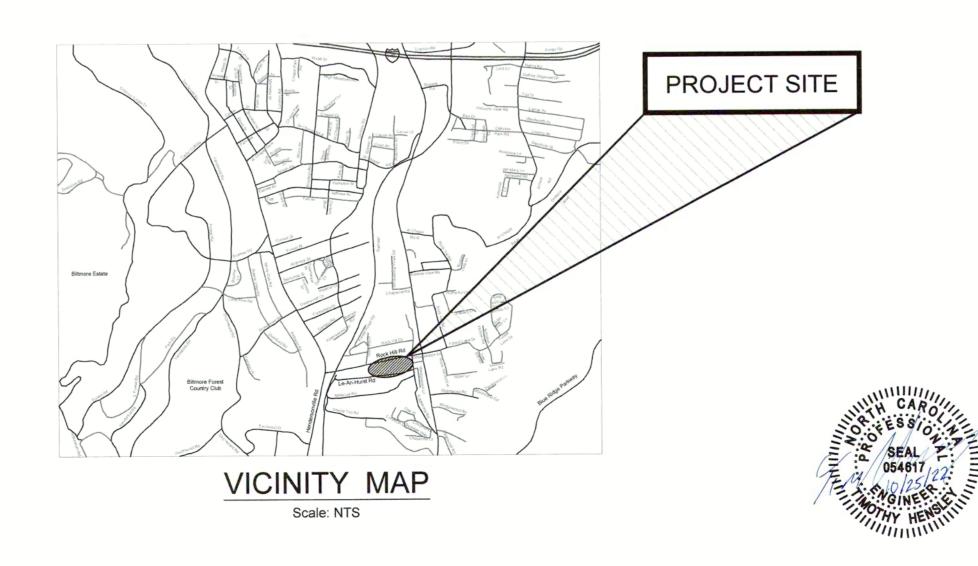
SEWER LINES SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN.

SEWER LINES CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE (CLEARANCE) OF 18 INCHES. THE CROSSING SHALL BE ARRANGED SUCH THAT THE SEWER JOINTS SHALL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN.

WHEN THIS VERTICAL DISTANCE IS NOT POSSIBLE TO OBTAIN, THE SEWER LINE SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE.

GENERAL NOTES:

- 1. LENGTHS SHOWN ARE NOT ACTUAL PIPE LENGTHS BUT ARE DISTANCES STATION TO STATION. SLOPES SHOWN ON THE PROFILE ARE CALCULATED USING LENGTHS FROM INSIDE EDGES OF MANHOLE.
- 2. ALL WORK ON THIS PROJECT SHALL COMPLY WITH THE CURRENT STANDARD DETAILS AND SPECIFICATIONS OF THE METROPOLITAN SEWERAGE DISTRICT OF BUNCOMBE COUNTY. SPECIAL CONDITIONS AND SPECIAL PROVISIONS MAY APPLY TO THIS PROJECT SEE SPECIFICATIONS.
- 3. ALL WORK SHALL COMPLY WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS, AS MAY BE APPLICABLE TO THIS PROJECT AND THE WORK DONE HEREUNDER.
- 4. WHERE FEDERAL, STATE, OR LOCAL LAWS REQUIRE THAT A PERMIT BE ISSUED AND OBTAINED FOR WORK DONE UNDER THIS PROJECT, ALL WORK PERFORMED BY THE CONTRACTOR SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE TERMS AND CONDITIONS SET FORTH IN THE PERMIT.
- 5. ANY MODIFICATIONS TO THESE CONSTRUCTION PLANS OR SPECIFICATIONS SHALL BE APPROVED BY THE MSD PROJECT ENGINEER.
- 6. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION.
- 7. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO KEEP THE SEWER AND ALL OTHER UTILITIES IN SERVICE AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR REPAIRS OF ANY KIND FOR DAMAGES RESULTING FROM THE CONTRACTOR'S CONSTRUCTION ACTIVITIES.
- 8. THE CONTRACTOR SHALL LOCATE ALL SERVICES CURRENTLY SERVED BY THE EXISTING SEWER AND RECONNECT TO THE NEW SEWER, INSTALLING A CLEANOUT ASSEMBLY AS REQUIRED (SEE DETAIL).
- 9. THE CONTRACTOR SHALL RESTORE ALL STREETS, PROPERTIES, AND IMPROVEMENTS TO AS GOOD OR BETTER CONDITION THAN EXISTED PRIOR TO CONSTRUCTION.
- 10. PROPERTY LINES SHOWN ON PLANS ARE APPROXIMATE ONLY. PROPERTY MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE RESET BY A LICENSED NC PROFESSIONAL LAND SURVEYOR.
- 11. DESIGN BASED ON SURVEY INFORMATION PROVIDED BY: WES COLE LAND SURVEYING, PA (828) 251-7025.



LEGEND

CURB INLET

STORM MANHOLE

CATCH BASIN

FFE = FINISHED FLOOR ELEV.

CM = CONCRETE MONUMENT

CONCRETE MONUMENT RIGHT OF WAY

DOT MON = DOT MONUMENT

PK FIND = PK NAIL FOUND

EIP = EXISTING IRON PIN FOUND

REB REBAR FOUND

SIGN

GAS VALVE

GAS METER

TRAVERSE

SHRUB

TREE

TREE

TREE

TREE

PROPOSED ABANDON PLUG
PROPOSED MANHOLE NUMBER

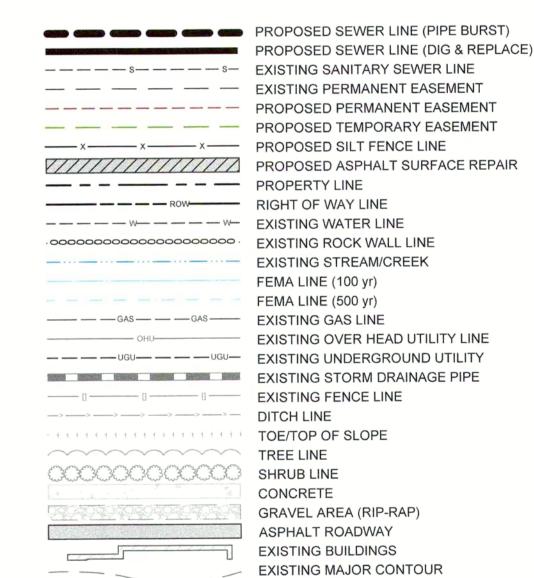
PROPOSED ABANDON SEWER MANHOLE
EXISTING SANITARY SEWER MANHOLE
EXISTING CLEANOUT

SXATELLITE DISH

WV = WATER VÁLVE
ICV = IRRIGATION CONTROL VALVE
WELL

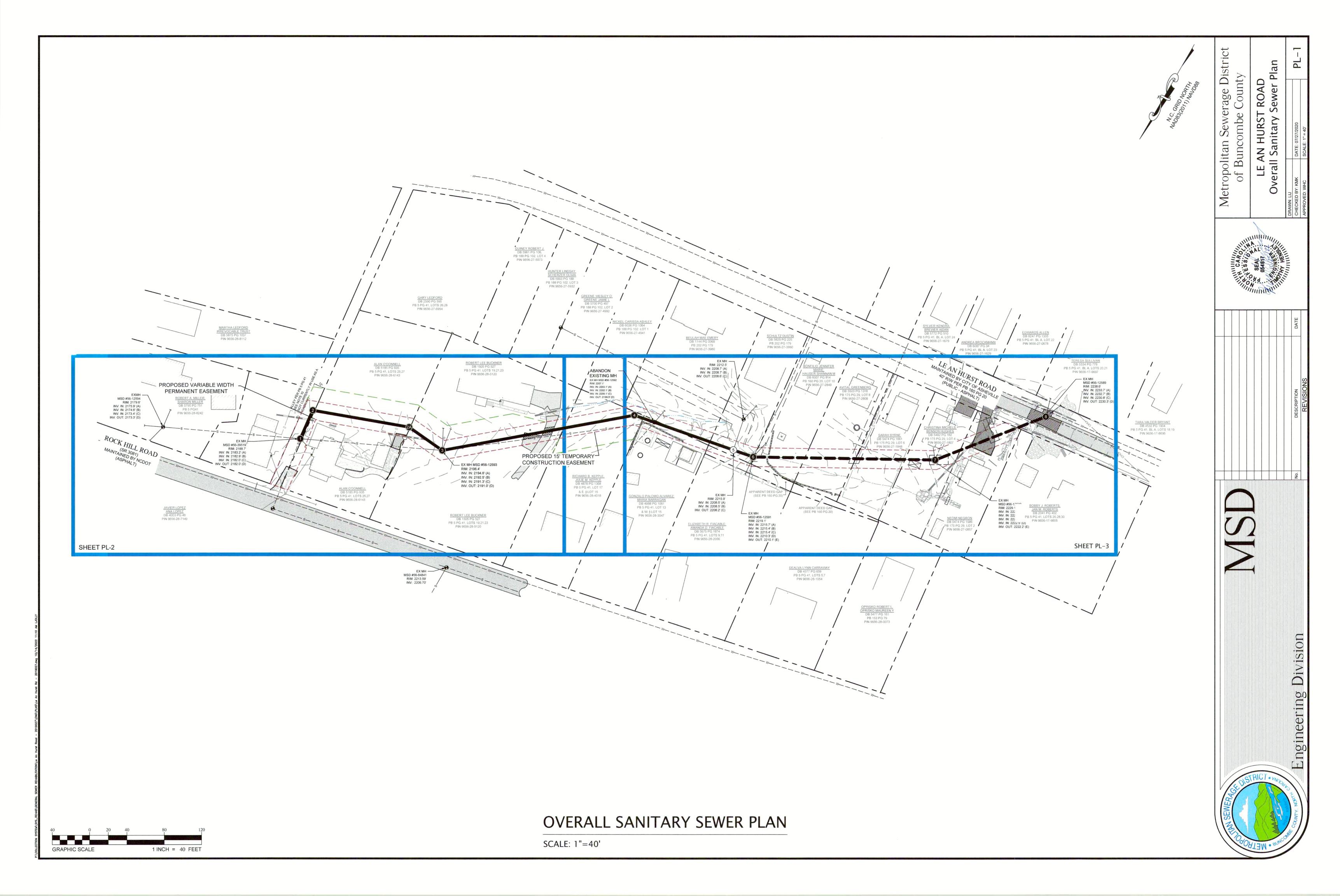
QFH FH = FIRE HYDRANT

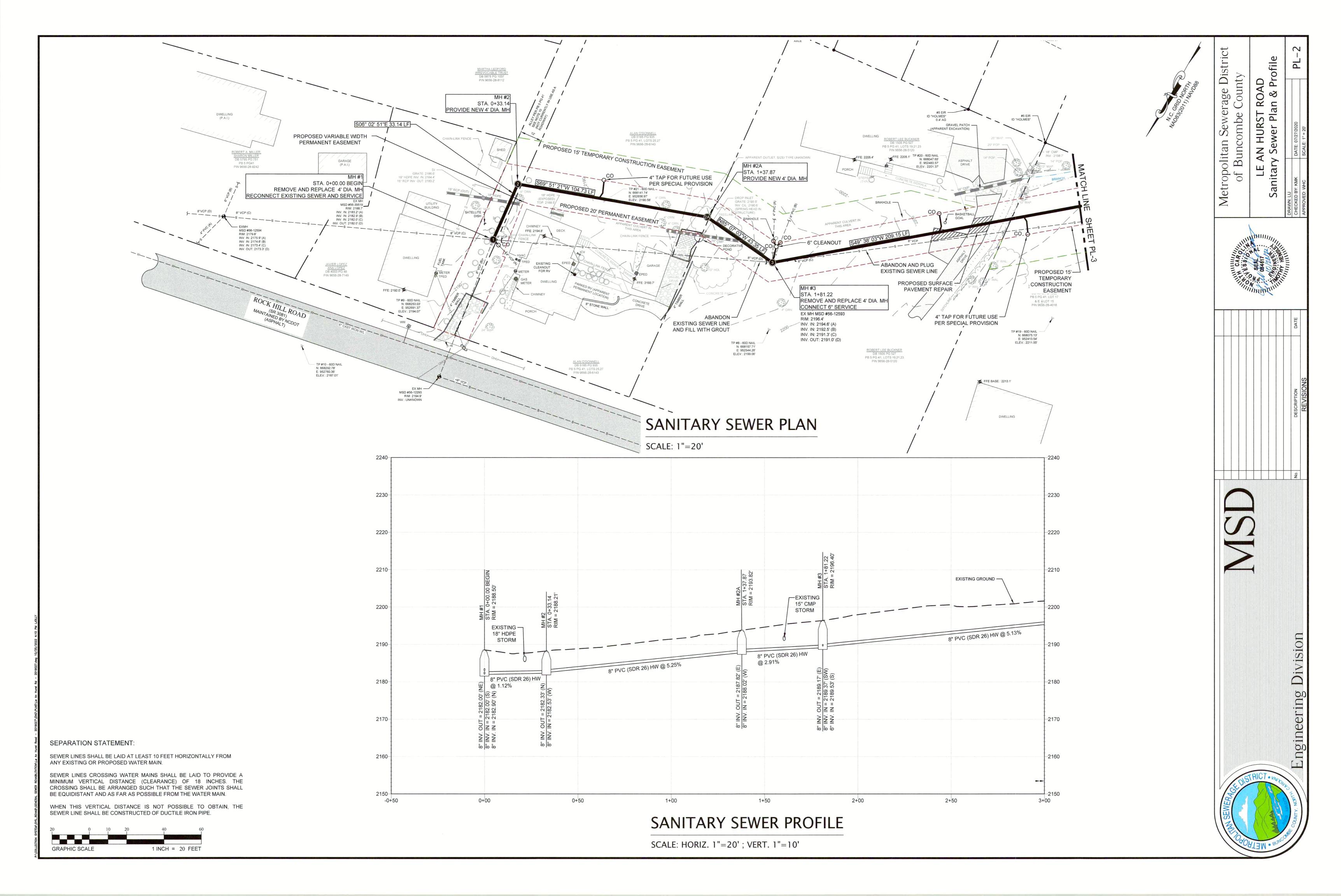
WM = WATER METER
SPIGOT
UTILITY POLE
GUY WIRE
ELECTRICAL JUNCTION BOX
ELECTRIC MANHOLE
LIGHT POLE

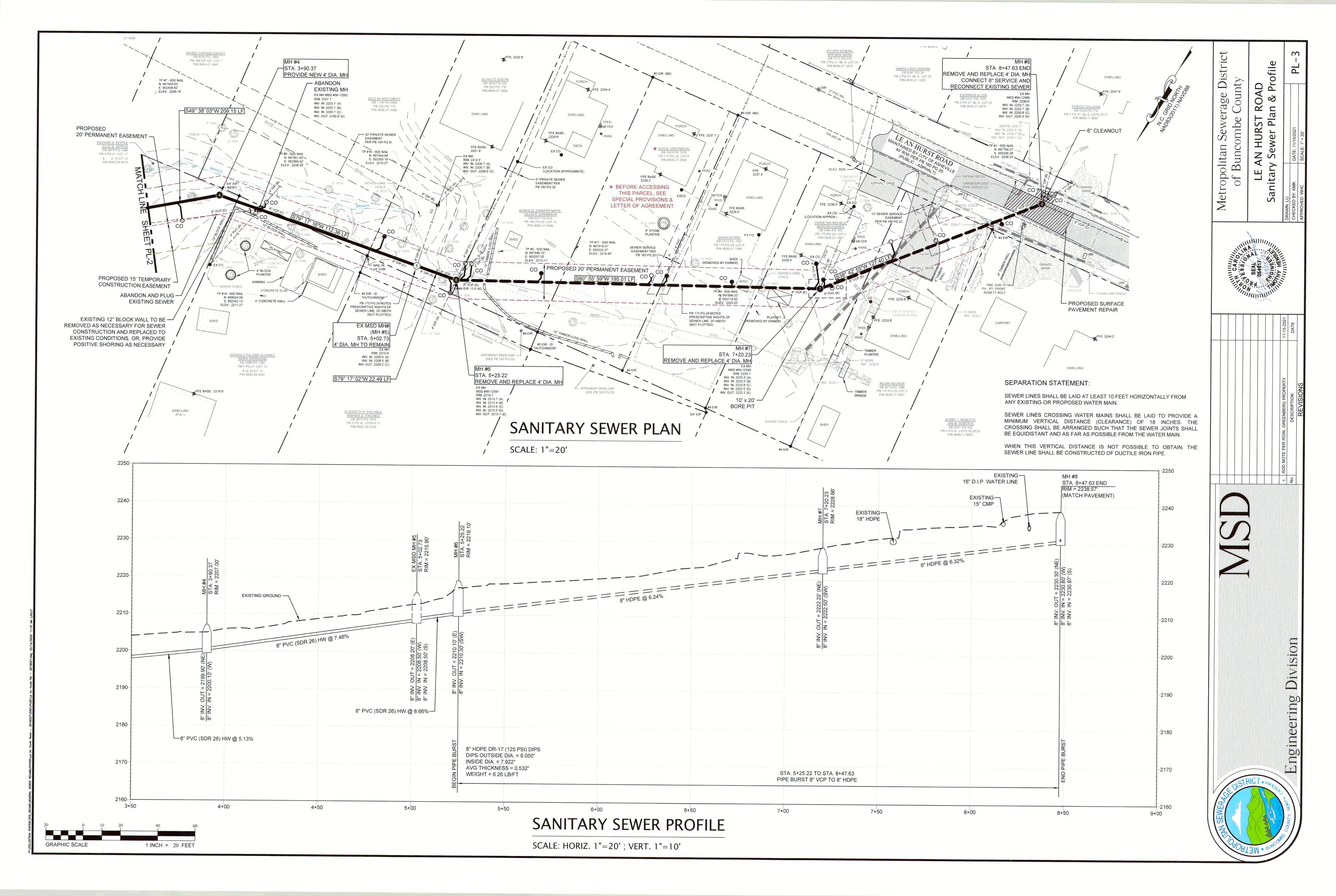


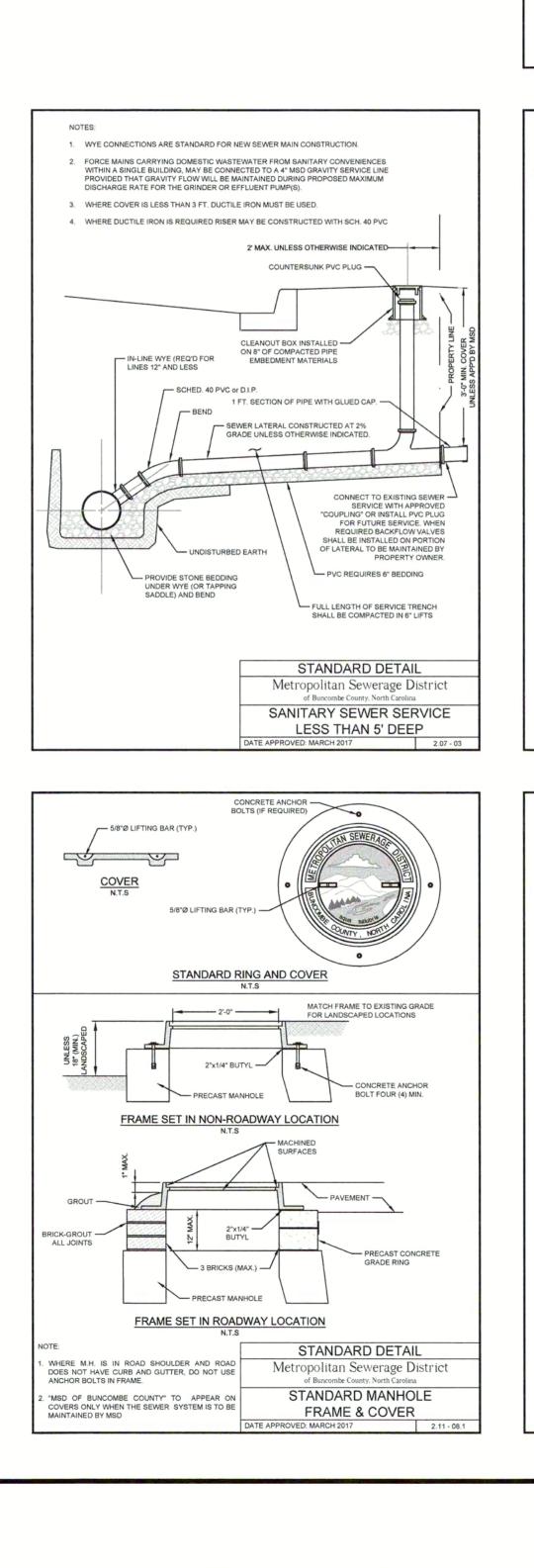
EXISTING MINOR CONTOUR

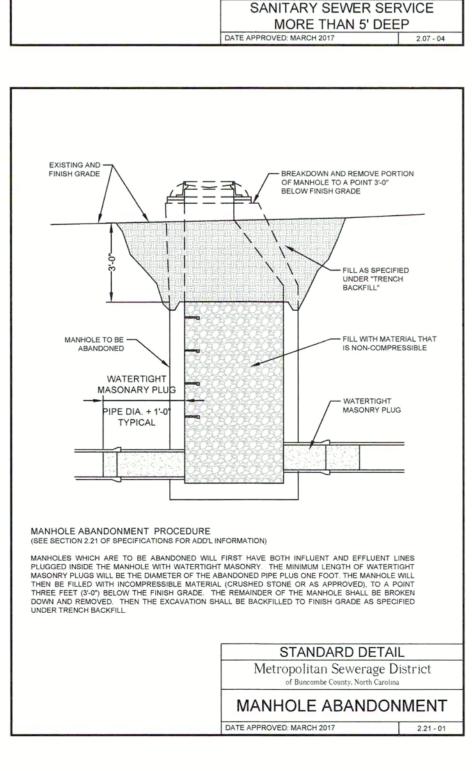
LE AN HURST ROAD PROJECT NO. 2019027











IPS/SCH. 40 HUB ADAPTOR

✓ NEW HDPE

EXISTING SOIL

WHERE COVER IS LESS THAN 3 FT. DUCTILE IRON MUST BE USED. FOR OMITTED NOTES SEE DETAIL 11a

8" x 6" WYE -

EXISTING SOIL

TRENCH BACKFILL IN MSD RIGHTS OF WAY

- 12" OF FINE LOOSE EARTH FREE FROM LARGE CLODS, STONES, DEBRIS, VEGETABLE MATTER, OR OTHER OBJECTIONABLE MATERIALS.

TRENCH BACKFILL MATERIAL

STANDARD DETAIL

Metropolitan Sewerage District

TRENCH BACKFILL

PROPERTY LINE

4x4 STAKE, TYP. — ALL LATERALS

STANDARD DETAIL

Metropolitan Sewerage District

DOUBLE SEWER SERVICE

DATE APPROVED: MARCH 2017

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STANDARD DETAIL

Metropolitan Sewerage District

COMPRESSION FITTING DETAIL

FOR 8" PIPES AND LARGER ONLY

TO CONNECT HOUSE SERVICE (PROVIDE MINIMUM COVER OF 30") AND INSTALL CLEAN-OUT

STANDARD DETAIL

Metropolitan Sewerage District

WITH RUBBER GASKET

SECURING CLAMP -

RUBBER SLEEVE (UPPER SEGMENT)

RUBBER SLEEVE

(LOWER SEGMENT) -

INSTALLATION PROCEDURE

IN HUB ADAPTER POPPING OUT).

1. REMOVE EXISTING "BURSTED" PIPE FRAGMENTS FROM AREA OF CONNECTION.

2. CORE THE PROPER SIZE HOLE (PER MANUFACTURE RECOMMENDATIONS) IN THE NEW 3. INSERT THE RUBBER SLEEVE INTO THE CORED HOLE. THE UPPER SEGMENT SHOULD BE ON TOP OF THE WALL OR RIB AND LOWER SEGMENT SHOULD BE ON THE INSIDE OF

THE PIPE.

4. APPLY THE TEE SOLUTION SUPPLIED TO THE INSIDE OF THE RUBBER SLEEVE AND TO THE OUTSIDE OF THE PVC HUB ADAPTER (CAUTION USING PIPE LUBE MAY RESULT

7. USING THE BOARD AND HAMMER DRIVE THE PVC HUB ADAPTER INTO THE RUBBER

8. PLACE THE STAINLESS BAND AROUND THE TOP OF THE RUBBER SLEEVE AND

5. PLACE THE PVC HUB ADAPTER INTO THE RUBBER SLEEVE.

1. WYE CONNECTIONS ARE STANDARD FOR NEW SEWER MAIN CONSTRUCTION.

DISCHARGE RATE FOR THE GRINDER OR EFFLUENT PUMP(S).

CONNECT TO EXISTING SEWER SERVICE WITH APPROVED COUPLING OR INSTALL PVC PLUG FOR FUTURE SERVICE. WHEN REQUIRED BACKFLOW VALVES SHALL BE INSTALLED ON PORTION OF LATERAL

TO BE MAINTAINED BY PROPERTY OWNER.

COUNTERSUNK PVC

ISTALLED ON 8" OF COMPACTED PIPE EMBEDMENT MATERIALS

WHERE COVER IS LESS THAN 3 FT. DUCTILE IRON MUST BE USED.

2. FORCE MAINS CARRYING DOMESTIC WASTEWATER FROM SANITARY CONVENIENCES

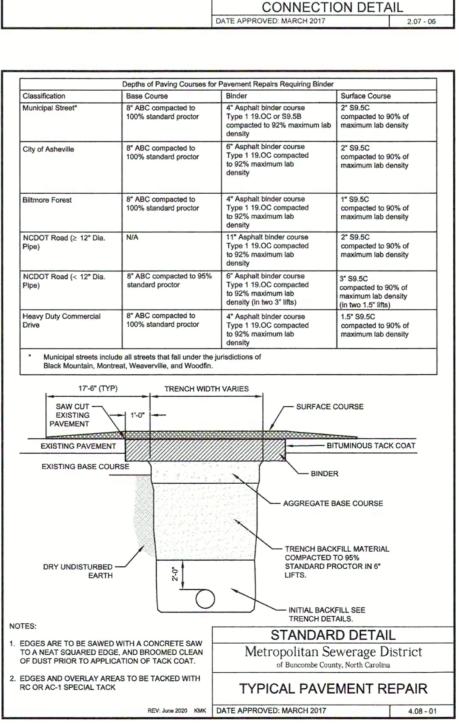
WITHIN A SINGLE BUILDING, MAY BE CONNECTED TO A 4" MSD GRAVITY SERVICE LINE PROVIDED THAT GRAVITY FLOW WILL BE MAINTAINED DURING PROPOSED MAXIMUM

WHERE DUCTILE IRON IS REQUIRED RISER MAY BE CONSTRUCTED WITH SCH. 40 PVC

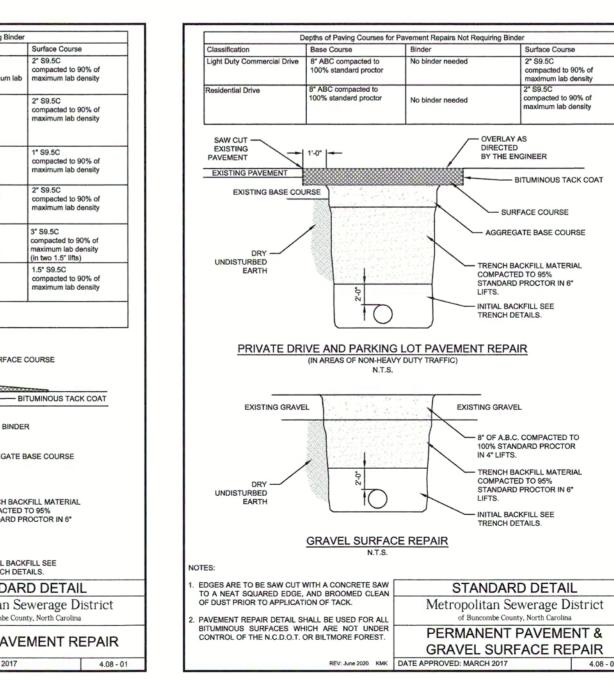
TIGHTEN DOWN.

9. INSTALL SIDE SERVICE PIPE IN NORMAL MANNER.

6. PLACE THE 2X4 BOARD ONTO THE TOP OF THE PVC HUB ADAPTER.



8" MAIN



ONLY ONE TRANSITION IN PIPE MATERIALS ALLOWED BETWEEN ANY TWO MANHOLES.

2 FOR PVC TO DIP AND DIP TO DIP

COVER TO TOP OF CLEANOUT

COUNTERSUNK

ALL SANITARY SEWER CLEANOUT BOXES AND

ALL SANITARY SEWER CLEANOUT BOXES AND

COVERS SHALL CONFORM TO PARAGRAPH 2.01(d)
OF ITEM II, SECTION VI OF MSD'S TECHNICAL
SPECIFICATIONS (MADE IN THE U.S.A.)

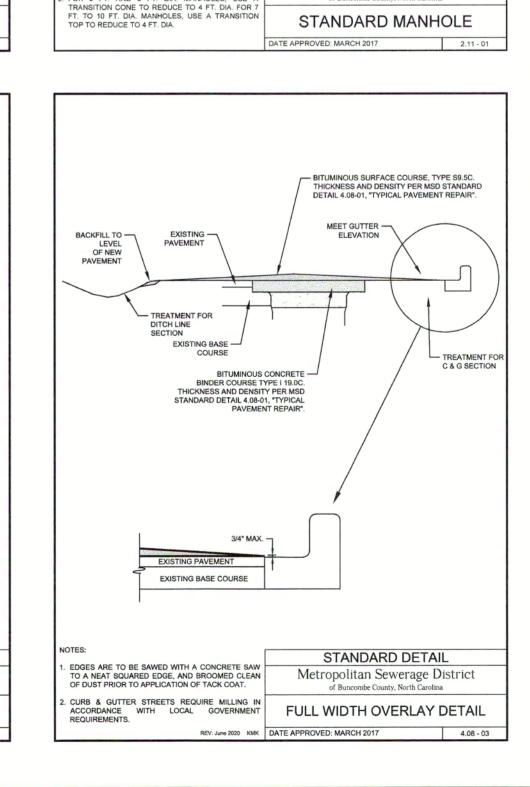
NON-TRAFFIC LOCATIONS: SANITARY SEWER CLEANOUT BOXES AND COVERS SHALL BE AS MANUFACTURED BY EAST JORDAN IRON WORKS MODEL 1566 (OR APPROVED EQUAL)

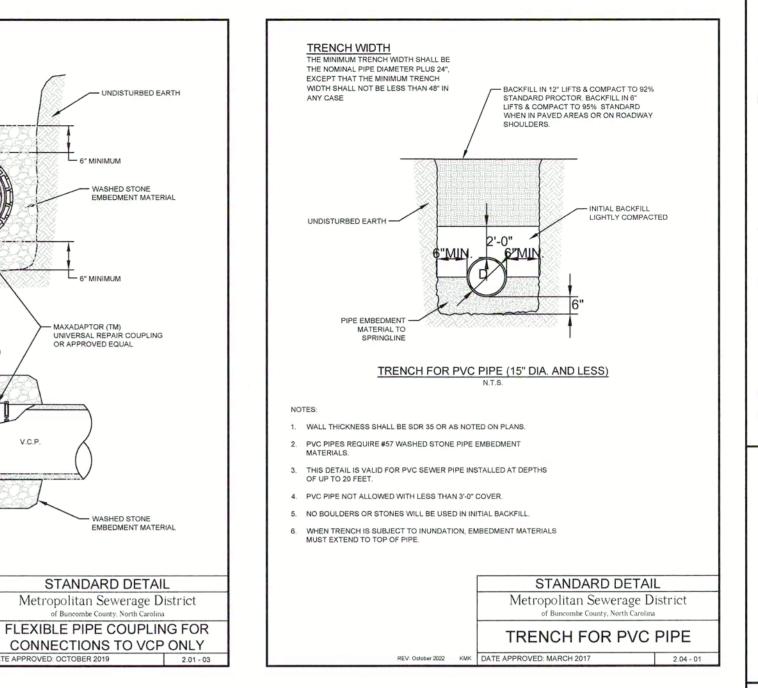
TRAFFIC LOCATIONS; SANITARY SEWER CLEANOUT BOXES AND COVERS SHALL BE AS MANUFACTURED

BY EAST JORDAN IRON WORKS MODEL 1574 (OR

OF AWWA C110 AND ASTM A536.

4" OR 6" SEWER





MAXADAPTOR (TM)
 UNIVERSAL REPAIR COUPLING
 OR APPROVED EQUAL

EMBEDMENT MATERIAL

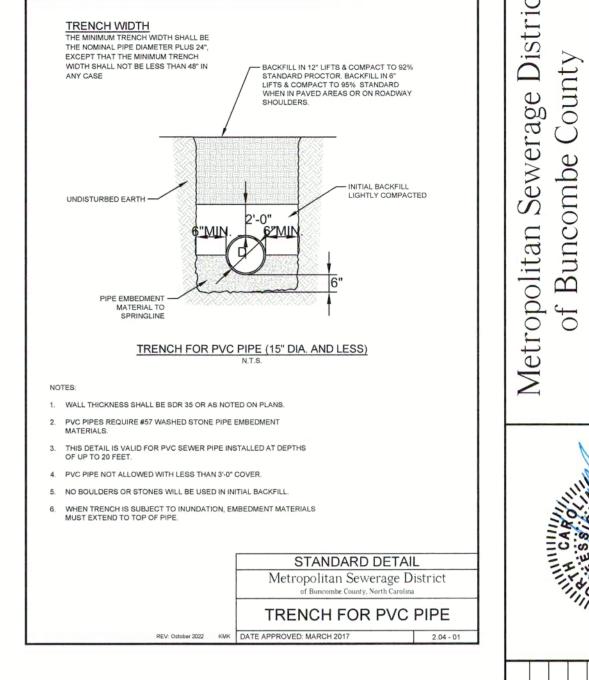
STANDARD DETAIL

STANDARD DETAIL

Metropolitan Sewerage District

CLEANOUT BOX

DATE APPROVED: MARCH 28, 2019 2.07 - 05



DETAIL "A" N.T.S.

INLET PIPING IS NOT ALLOWED IN

QUADRANT ADJOINING THE MANHOLE OUTLET.

IN LINE WITH "INVERT OUT"

SECTIONAL PLAN

STANDARD DETAIL

Metropolitan Sewerage District

12" MAX, BRICK -

FOR MANHOLES LARGER THAN 4 FT. DIA., MAINTAIN





ounty

ROAD Detail

E AN HURST anitary Sewer

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Division