



City of Norman

Floodplain Permit Application

Floodplain Permit No. 714

Building Permit No. _____

Date 5/19/2025

FLOODPLAIN PERMIT APPLICATION (\$100.00 Application Fee Required)

SECTION 1: GENERAL PROVISIONS (APPLICANT to read and sign):

1. No work may start until a permit is issued.
2. The permit may be revoked if any false statements are made herein.
3. If revoked, all work must cease until permit is re-issued.
4. Development shall not be used or occupied until a Certificate of Occupancy is issued.
5. The permit will expire if no work is commenced within 2 years of issuance.
6. Applicant is hereby informed that other permits may be required to fulfill local, state and federal regulatory requirements and must be included with this floodplain permit application.
7. Applicant hereby gives consent to the City of Norman or his/her representative to access the property to make reasonable inspections required to verify compliance.
8. The following floodplain modifications require approval by the City Council:
 - (a) A modification of the floodplain that results in a change of ten percent (10%) or more in the width of the floodplain.
 - (b) The construction of a pond with a water surface area of 5 acres or more.
 - (c) Any modifications of the stream banks or flow line within the area that would be regulatory floodway whether or not that channel has a regulatory floodplain, unless the work is being done by the City of Norman staff as part of a routine maintenance activity.
9. All supporting documentation required by this application is required along with the permit fee by the submittal deadline. Late or incomplete applications will not be accepted.
10. I, THE APPLICANT, CERTIFY THAT ALL STATEMENTS HEREIN AND IN ATTACHMENTS TO THIS APPLICATION ARE, TO THE BEST OF MY KNOWLEDGE, TRUE AND ACCURATE.

SECTION 2: PROPOSED DEVELOPMENT (To be completed by APPLICANT.)

APPLICANT: Ken Giannone ADDRESS: 225 N. Webster Ave., Norman, OK 73069

TELEPHONE: 405-366-5377 SIGNATURE: _____

BUILDER: TBD ADDRESS: _____

TELEPHONE: _____ SIGNATURE: _____

ENGINEER: Ken Giannone, P.E. ADDRESS: 225 N. Webster Ave., Norman, OK 73069

TELEPHONE: 405-366-5377 (office), 405-833-3628 (cell) SIGNATURE: _____

PROJECT LOCATION

To avoid delay in processing the application, please provide enough information to easily identify the project location. Provide the street address, subdivision addition, lot number or legal description (attach) and, outside urban areas, the distance to the nearest intersecting road or well known landmark. A sketch attached to this application showing the project location would be helpful.

Project is in the common area of the Chardonnay at the Vineyard Phase 1 Planned Unit Development. Chardonnay at the Vineyard Phase 1 is

NW Corner of the NW/4 of Section 17, T9N-R2W off Porter Avenue, and the project is to the rear of Nos. 3301, 3305, and 3309 Chardonnay Lane, Norman, Oklahoma. See attached drawing entitled

"WOODCREST INTERCEPTOR - EMERGENCY REALIGNMENT AT CHARDONNAY AT THE VINEYARD PHASE 1 - MARKED UP FINAL PLAT" for additional information.

DESCRIPTION OF WORK (Check all applicable boxes):

A. STRUCTURAL DEVELOPMENT

ACTIVITY

STRUCTURE TYPE

- | | |
|---|---|
| <input type="checkbox"/> New Structure | <input type="checkbox"/> Residential (1-4 Family) |
| <input type="checkbox"/> Addition | <input type="checkbox"/> Residential (More than 4 Family) |
| <input type="checkbox"/> Alteration | <input type="checkbox"/> Non-Residential (Flood proofing? <input type="checkbox"/> Yes) |
| <input type="checkbox"/> Relocation | <input type="checkbox"/> Combined Use (Residential & Commercial) |
| <input checked="" type="checkbox"/> Demolition | <input type="checkbox"/> Manufactured (Mobile) Home |
| <input checked="" type="checkbox"/> Replacement | <input type="checkbox"/> In Manufactured Home Park? <input type="checkbox"/> Yes |

ESTIMATED COST OF PROJECT \$ 170,000.00 Work that involves substantial damage/substantial improvement requires detailed cost estimates and an appraisal of the structure that is being improved.

B. OTHER DEVELOPMENT ACTIVITIES:

- | | | | |
|--|---------------------------------|--|----------------------------------|
| <input type="checkbox"/> Fill | <input type="checkbox"/> Mining | <input type="checkbox"/> Drilling | <input type="checkbox"/> Grading |
| <input type="checkbox"/> Excavation (Beyond the minimum for Structural Development) | | | |
| <input type="checkbox"/> Watercourse Alteration (Including Dredging and Channel Modifications) | | | |
| <input type="checkbox"/> Drainage Improvements (Including Culvert Work) | | <input type="checkbox"/> Road, Street or Bridge Construction | |
| <input type="checkbox"/> Subdivision (New or Expansion) | | <input checked="" type="checkbox"/> Individual Water or Sewer System | |

In addition to items A. and B. provide a complete and detailed description of proposed work (failure to provide this item will be cause for the application to be rejected by staff). Attach additional sheets if necessary.

Realignment of approximately 290 LF of existing 15" diameter sanitary sewer interceptor including 3 new manholes. The work will include two open-cut stream crossings of a tributary of Woodcrest Creek but NO work in the Woodcrest Creek floodway. .

Design calls for all existing grades to be maintained. Design also entails the demolition and removal (to a depth of 3' below grade) and plugging/filling/abandoning in place

(for structures deeper than 3' feet) of one existing manhole and 250 LF +/- of existing sanitary sewer.

C. ATTACHMENTS WHICH ARE REQUIRED WITH EVERY APPLICATION:

The applicant must submit the documents listed below before the application can be processed. If the requested document is not relevant to the project scope, please check the Not Applicable box and provide explanation.

- A. Plans drawn to scale showing the nature, location, dimensions, and elevation of the lot, existing or proposed structures, fill, storage of materials, flood proofing measures, and the relationship of the above to the location of the channel, floodway, and the regulatory flood-protection elevation.

Plan set entitled "Woodcrest Interceptor Realignment at Chardonnay Lane" is included.

- B. A typical valley cross-section showing the channel of the stream, elevation of land areas adjoining each side of the channel, cross-sectional areas to be occupied by the proposed development, and high-water information.

☒ Not Applicable:

- C. Subdivision or other development plans (If the subdivision or other developments exceeds 50 lots or 5 acres, whichever is the lesser, the applicant **must** provide 100-year flood elevations if they are not otherwise available).

☒ Not Applicable:

- D. Plans (surface view) showing elevations or contours of the ground; pertinent structure, fill, or storage elevations; size, location, and spatial arrangement of all proposed and existing structures on the site; location and elevations of streets, water supply, sanitary facilities; photographs showing existing land uses and vegetation upstream and downstream, soil types and other pertinent information.

☒ Not Applicable:

- E. A profile showing the slope of the bottom of the channel or flow line of the stream.

☒ Not Applicable:

- F. Elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures.

☒ Not Applicable:

- G. Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.

☒ Not Applicable:

- H. For proposed development within any flood hazard area (except for those areas designated as regulatory floodways), certification that a rise of no more than five hundredths of a foot (0.05') will occur on any adjacent property in the base flood elevation as a result of the proposed work. For proposed development within a designated regulatory floodway, certification of no increase in flood levels within the community during the occurrence of the base flood discharge as a result of the proposed work. All certifications shall be signed and sealed by a Registered Professional Engineer licensed to practice in the State of Oklahoma.
- I. A certified list of names and addresses of all record property owners within a three hundred fifty (350) foot radius of the exterior boundary of the subject property not to exceed 100 feet laterally from the Special Flood Hazard Area. The radius to be extended by increments of one hundred (100) linear feet until the list of property owners includes not less than fifteen (15) individual property owners of separate parcels or until a maximum radius of one thousand (1,000) feet has been reached.
- J. A copy of all other applicable local, state, and federal permits (i.e. U.S. Army Corps of Engineers 404 permit, etc).

After completing SECTION 2, APPLICANT should submit form to Permit Staff for review.

SECTION 3: FLOODPLAIN DETERMINATION (To be completed by Permit Staff.)

The proposed development is located on FIRM Panel No.: 0195J, Dated: 2/20/2013

The Proposed Development:

- ☐ Is NOT located in a Special Flood Hazard Area
(Notify the applicant that the application review is complete and NO FLOODPLAIN PERMIT IS REQUIRED).
- ☒ Is located in a Special Flood Hazard Area.
- ☐ The proposed development is located in a floodway.
- ☐ 100-Year flood elevation at the site is 1131.0 Ft. NGVD (MSL) ☐ Unavailable

See Section 4 for additional instructions.

SIGNED: _____




DATE: 5/19/2025

SECTION 4: ADDITIONAL INFORMATION REQUIRED (To be completed by Permit Staff.)

The applicant must also submit the documents checked below before the application can be processed.

- ☐ Flood proofing protection level (non-residential only) _____ Ft. NGVD (MSL). For flood proofed structures applicant must attach certification from registered engineer.
- ☐ Certification from a registered engineer that the proposed activity in a regulatory floodway will not result in any increase in the height of the 100-year flood (Base Flood Elevation). A copy of all data and calculations supporting this finding must also be submitted.
- ☐ Certification from a registered engineer that the proposed activity in a regulatory flood plain will result in an increase of no more than 0.05 feet in the height of the 100-year flood (Base Flood Elevation). A copy of all data and calculations supporting this finding must also be submitted.
- ☐ All other applicable federal, state, and local permits have been obtained.

Other: _____

SECTION 5: PERMIT DETERMINATION (To be completed by Floodplain Chairman.)

The proposed activity: (A) ☐ **Is**; (B) ☐ **Is Not** in conformance with provisions of Norman's City Code Chapter 22, Section 429.1. The permit is issued subject to the conditions attached to and made part of this permit.

SIGNED: _____ DATE: _____

If BOX A is checked, the Floodplain committee chairman may issue a Floodplain Permit.

If BOX B is checked, the Floodplain committee chairman will provide a written summary of deficiencies. Applicant may revise and resubmit an application to the Floodplain committee or may request a hearing from the Board of Adjustment.

APPEALS: Appealed to Board of Adjustment: ☐ Yes ☐ No
Hearing date: _____

Board of Adjustment Decision - Approved: ☐ Yes ☐ No

Conditions:

SECTION 6: AS-BUILT ELEVATIONS (To be submitted by APPLICANT before Certificate of Occupancy is issued.)

1. FEMA Elevation Certificate
and/or
2. FEMA Floodproofing Certificate

NOTE: The completed certificate will be reviewed by staff for completeness and accuracy. If any deficiencies are found it will be returned to the applicant for revision. A Certificate of Occupancy for the structure will not be issued until an Elevation and /or Floodproofing Certificate has been accepted by the City.

WOODCREST INTERCEPTOR - EMERGENCY REALIGNMENT AT CHARDONNAY AT THE VINEYARD PHASE 1 - MARKED UP FINAL PLAT

OWNER'S CERTIFICATE AND DEDICATION

KNOW ALL MEN BY THESE PRESENTS: That APPLEWOOD CONSTRUCTION, L.L.C., certifies that they are the owner of all the land included in the annexed plat and APPLEWOOD CONSTRUCTION, L.L.C. is the only entity having any right, title or interest to the land shown and known as "CHARDONNAY AT THE VINEYARD PHASE I", a subdivision of part of the Northwest Quarter (NW/4) of Section Seventeen (17), Township Nine (9) North, Range Two (2) West of the Indian Meridian, (I.M.), Norman, Cleveland County, Oklahoma and that the plat of "CHARDONNAY AT THE VINEYARD PHASE I", represents a survey of the above described property made with our consent, and that we hereby dedicate the rights-of-way and easements shown on the annexed plat for the installation and maintenance of the public streets and utilities; that we hereby guarantee a clear title to all lands so dedicated from ourselves, our heirs and assigns forever and have caused the same to be released from all encumbrances so that the title is clear, except as shown in the Abstractor's Certificate. Covenants, restrictions, and reservations for the addition are contained on a separate instrument and will be filed subsequently.

Witnessed by our hand(s) this 14th day of November, 2005.

Applewood Construction L.L.C.

By: Mick Leonard, Manager

STATE OF OKLAHOMA
COUNTY OF) SS

Before me, the undersigned, a Notary Public in and for said County and State, on this 14th day of November, 2005, personally appeared Mick Leonard, known to me to be the identical person who executed as manager of APPLEWOOD CONSTRUCTION, L.L.C., the within and foregoing instrument and executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

WITNESS my hand and notarial seal the day and year last above written,

Debra Mack
Notary Public

My Commission Number is, 02001724

My Commission Expires the 29th day of January, 2006.

CERTIFICATE OF COUNTY TREASURER

I, Sandra Searles, do hereby certify that I am duly elected, qualified and acting County Treasurer of Cleveland County, State of Oklahoma; that the tax records of said County show all taxes are paid for the year 2004 and prior years on the land shown on the annexed plat of "CHARDONNAY AT THE VINEYARD PHASE I", an addition to the City of Norman in Cleveland County, State of Oklahoma; that the required statutory security has been deposited in the office of the County Treasurer, guaranteeing payment of the current year's taxes.

IN WITNESS WHEREOF said County Treasurer has caused this instrument to be executed at Cleveland in Cleveland County, State of Oklahoma, this 21 day of November 2005.

Sandra Searles
County Treasurer - Sandra Searles

ACCEPTANCE OF DEDICATION BY CITY COUNCIL

BE IT HEREBY RESOLVED by the City Council of the City of Norman, Oklahoma, that the dedications shown of the annexed plat of "CHARDONNAY AT THE VINEYARD PHASE I" are hereby approved by the Council of the City of Norman, Oklahoma, this 19th day of November, 2005.

ATTEST: Mary Hatley CITY OF NORMAN, OKLAHOMA
Attest City Clerk Harold Hardson Mayor

CITY PLANNING COMMISSION APPROVAL

I, Mike LeBeis, Chairman of the City of Norman Planning Commission certify that the Commission duly approved this plat on the 9th day of November, 2005.

Mike LeBeis
Chairman

CERTIFICATE OF CITY CLERK

I, Mary Hatley, City Clerk of the City of Norman, Oklahoma, hereby certify that I have examined the records of said City and find that all deferred payments on unamortized installments upon special assessment have been paid in full and that there are no special assessments procedures now pending against the land shown on the Final Plat of "CHARDONNAY AT THE VINEYARD PHASE I", to the City of Norman, Oklahoma.

Signed by the City Clerk this 15th day of November, 2005.

Mary Hatley
City Clerk

BONDED ABSTRACTER'S CERTIFICATE

STATE OF OKLAHOMA)
COUNTY OF) SS

The undersigned, duly qualified abstractor in and for the said County and State, hereby certifies that according to the records of said County, title to the land included in the annexed plat of "CHARDONNAY AT THE VINEYARD PHASE I" to the City of Norman, Cleveland County, Oklahoma, appears to be vested in APPLEWOOD CONSTRUCTION, L.L.C., and that on the 14th day of Nov. 2005, all lands described and referred to are unencumbered by pending actions, judgments, liens, mortgages, taxes or other encumbrances, except mortgages of record, that there are no outstanding tax sales certificates against said land and no tax deeds are issued to any person.

EXECUTED at NORMAN, Cleveland County, Oklahoma, on this 16th day of Nov 2005.

Bob Harkis
AMERICAN-FIRST ABSTRACT COMPANY
VICE PRESIDENT

MARK UP OF FINAL PLAT BY:
KEN GIANNONE,
CAPITAL PROJECTS ENGINEER,
NORMAN DEPT OF UTILITIES

FINAL PLAT
OF
CHARDONNAY AT THE VINEYARD
PHASE 1

A PLANNED UNIT DEVELOPMENT

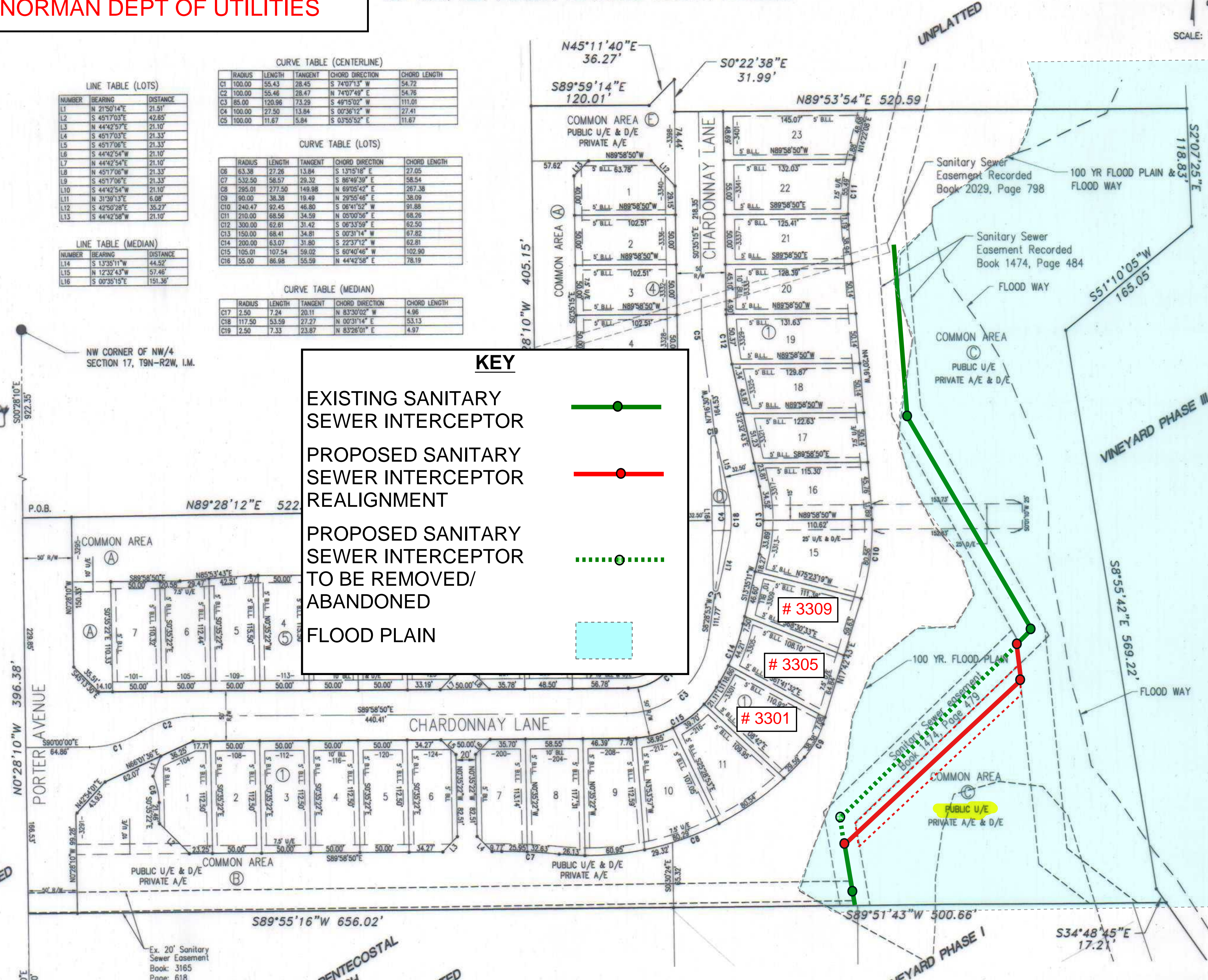
BEING A PART OF THE NW/4 OF SECTION 17,
T9N-R2W, I.M., NORMAN, CLEVELAND COUNTY, OKLAHOMA

CURVE TABLE (CENTERLINE)					
RADIUS	LENGTH	TANGENT	CHORD DIRECTION	CHORD LENGTH	
C1	100.00	55.43	28.45 S 131°51'16" E	54.72	
C2	100.00	55.46	28.47 N 74°07'49" E	54.76	
C3	85.00	120.96	73.29 S 45°15'02" W	111.01	
C4	100.00	27.50	13.84 S 03°36'12" W	27.41	
C5	100.00	11.67	5.94 S 03°56'52" E	11.67	

CURVE TABLE (LOTS)					
RADIUS	LENGTH	TANGENT	CHORD DIRECTION	CHORD LENGTH	
C6	63.38	27.26	13.84 S 131°51'16" E	27.65	
C7	532.50	58.57	29.32 S 86°49'30" E	58.54	
C8	295.01	277.50	149.98 N 69°55'42" E	297.38	
C9	50.00	38.38	19.49 N 29°56'46" E	38.69	
C10	240.47	92.45	46.80 S 06°41'52" W	91.88	
C11	210.00	68.56	34.59 N 05°00'56" E	68.26	
C12	300.00	62.61	31.42 S 06°33'59" E	62.50	
C13	150.00	68.41	34.81 S 00°31'14" W	67.82	
C14	200.00	61.07	31.80 S 22°37'12" W	62.81	
C15	105.01	107.54	59.02 S 60°40'46" W	102.90	
C16	55.00	86.98	55.59 N 44°42'58" E	78.19	

CURVE TABLE (MEDIAN)					
RADIUS	LENGTH	TANGENT	CHORD DIRECTION	CHORD LENGTH	
C17	2.50	7.24	20.11 N 83°30'02" W	4.96	
C18	117.50	53.59	27.27 N 00°39'14" E	53.13	
C19	2.50	7.33	23.87 N 83°28'01" E	4.97	

KEY
EXISTING SANITARY SEWER INTERCEPTOR
PROPOSED SANITARY SEWER INTERCEPTOR REALIGNMENT
PROPOSED SANITARY SEWER INTERCEPTOR TO BE REMOVED/ABANDONED
FLOOD PLAIN



STATE OF OKLAHOMA
COUNTY OF CLEVELAND
FILED FOR RECORD
Nov 23 2005 11:41
By Debra Mack

SCALE: 1" = 60'

LEGAL DESCRIPTION:
COMMENCING at the NW corner of the NW/4 of Section 17, T9N-R2W, of the I.M., Cleveland County, Oklahoma; THENCE S0° 28' 10"E along the West line of said NW/4 a distance of 922.35 feet to the Point of Beginning; THENCE N89° 28' 12"E a distance of 522.72 feet; THENCE N0° 28' 10"W and parallel with the West line of said NW/4 a distance of 405.15 feet; THENCE S89° 59' 14"E a distance of 120.01 feet; THENCE N45° 11' 40"E a distance of 36.27 feet; THENCE S0° 22' 38"E a distance of 31.99 feet; THENCE N89° 53' 54"E a distance of 520.59 feet; THENCE S2° 07' 25"E a distance of 118.83 feet; THENCE S51° 10' 05"W a distance of 165.05 feet; THENCE S8° 55' 42"E a distance of 569.22 feet; THENCE S34° 48' 45"E a distance of 17.21 feet; THENCE S89° 51' 43"W a distance of 500.66 feet to a point on the West line of said NW/4; THENCE N0° 28' 10"W along the West line of said NW/4 a distance of 396.38 feet to the Point of Beginning and containing 688047.832 sq. ft. or 15.80 acres, more or less.

LEGEND:
LNA = LIMITS OF NO ACCESS
U/E = UTILITY EASEMENT
B.L.L. = BUILDING LIMIT LINE
D/E = DRAINAGE EASEMENT
(NR) = NON-RADIAL
PRIVATE SS/E = PRIVATE SANITARY SEWER EASEMENT
--- = EXISTING EASEMENT
--- = PROPOSED EASEMENT
• = SET 3/8" IRON PIN

SURVEYOR'S CERTIFICATE
I, James J. Reddin, Registered Professional Land Surveyor No. 1510, in the State of Oklahoma, do hereby certify that this plat of "CHARDONNAY AT THE VINEYARD PHASE I", an addition to the City of Norman, Cleveland County, Oklahoma, represents a careful survey made under my supervision, and that this survey meets the Oklahoma Minimum Standards for the Practice of Land Surveying as adopted by the Oklahoma State Board of Registration for Professional Engineers and Land Surveyors; and that said Final Plat complies with the requirements of Title 11, Section 41-108 of the Oklahoma State Statutes.

James J. Reddin
James J. Reddin, RPLS #1510

STATE OF OKLAHOMA)
COUNTY OF) SS

Before me, the undersigned, a Notary Public in and for said County and State, on this 15th day of Nov. 2005, personally appeared James J. Reddin, to me known to be the identical person who executed the within and foregoing instrument and executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

WITNESS my hand and notarial seal the day and year last above written,
Debra Mack
Notary Public

My Commission Number is, 03005188
My Commission Expires the 28 day of March, 2007.

NOTES:
THE MAINTENANCE OF ALL COMMON AREAS, PRIVATE DRAINAGE EASEMENTS, ISLANDS/MEDIANS WITH THE STREET RIGHT-OF-WAY SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNERS ASSOCIATION.
NO STRUCTURES, STORAGE OF MATERIALS, GRADING FILL, OR OTHER OBSTRUCTIONS, INCLUDING FENCES, EITHER TEMPORARY OR PERMANENT, SHALL BE PLACED WITHIN THE LIMITS OF THE COMMON AREAS AND/OR DRAINAGE EASEMENTS SHOWN THAT WOULD IMPIDE FLOW FROM THE INLETS AND OUTLETS OF THE COMMON AREAS AND/OR DRAINAGE EASEMENTS.

LOT COUNT: 42 SINGLE FAMILY

B.M. : 1/2" IRON PIN LOCATED AT THE NW CORNER OF THE NW 1/4 OF SECTION 17, TOWNSHIP 9 NORTH, RANGE 2 WEST, I.M. ELEVATION=1150.34

Crafton, Tull & Associates, Inc.
235 N. MacArthur Suite 200 Oklahoma City, OK 73127
405.787.6270 Fax: 405.787.6276 www.craftontull.com
CA 973 (PE/Ls) EXPIRES 6/30/2006

Engineers & Surveyors

DRAWN: TLB DATE: 9-12-05 CHECKED: JLR SHEET NO.: PROJECT NO.: 036018-00

CHARDONNAY AT THE VINEYARD PHASE I
A PLANNED UNIT DEVELOPMENT

BID ITEMS

NO.	DESCRIPTION	UNITS	BID QUANTITY	AS BUILT QUANTITY
1	MOBILIZATION & INSURANCE	LS	1	
2	SOIL EROSION & SEDIMENTATION CONTROL	LS	1	
3	CLEARING	LS	1	
4	SURVEY & LAYOUT	LS	1	
5	ABANDON EXISTING 5-FOOT I.D. MH IN PLACE	EA	1	
6	REMOVE/ABANDON EXISTING 15" SANITARY SEWER	LS	1	
7	5-FOOT I.D. MANHOLE UP TO 6' DEPTH	EA	1	
8	5-FOOT I.D. DOGHOUSE MANHOLE UP TO 6' DEPTH	EA	2	
9	ADDITIONAL 5-FOOT I.D. MH OR DOGHOUSE MH DEPTH OVER 6'	VF	24	
10	15" DIAMETER SANITARY SEWER	LF	286	
11	MINIMUM 24" DIAMETER STEEL CASING PIPE - OPEN CUT	LF	64	
12	OPEN CUT STREAM CROSSING	EA	2	
13	RIP RAP	SY	530	
14	SOD	SY	300	
15	RECOVERY MIX RESTORATION	LS	1	
16	DELIVER MARKED UP AS-BUILT DRAWINGS	LS	1	



PROJECT WW0XXX
WOODCREST INTERCEPTOR
REALIGNMENT
AT CHARDONNAY LANE
APRIL 2025



CITY OF NORMAN,
OKLAHOMA
NORMAN UTILITIES
AUTHORITY

DRAWING INDEX

SHEET	DESCRIPTION
1	COVER SHEET & APPROVALS
2A	MARKED UP FINAL PLAT - CHARDONNAY
2	PROJECT OVERVIEW & REMOVALS
3	PLAN & PROFILE AND NOTES
4	RESTORATION PLAN, SCHEDULE & NOTES
5	DETAILS



NORMAN DEPARTMENT OF UTILITIES
225 N. WEBSTER AVE
NORMAN, OK 7306
(405) 321-1600

PREPARED BY

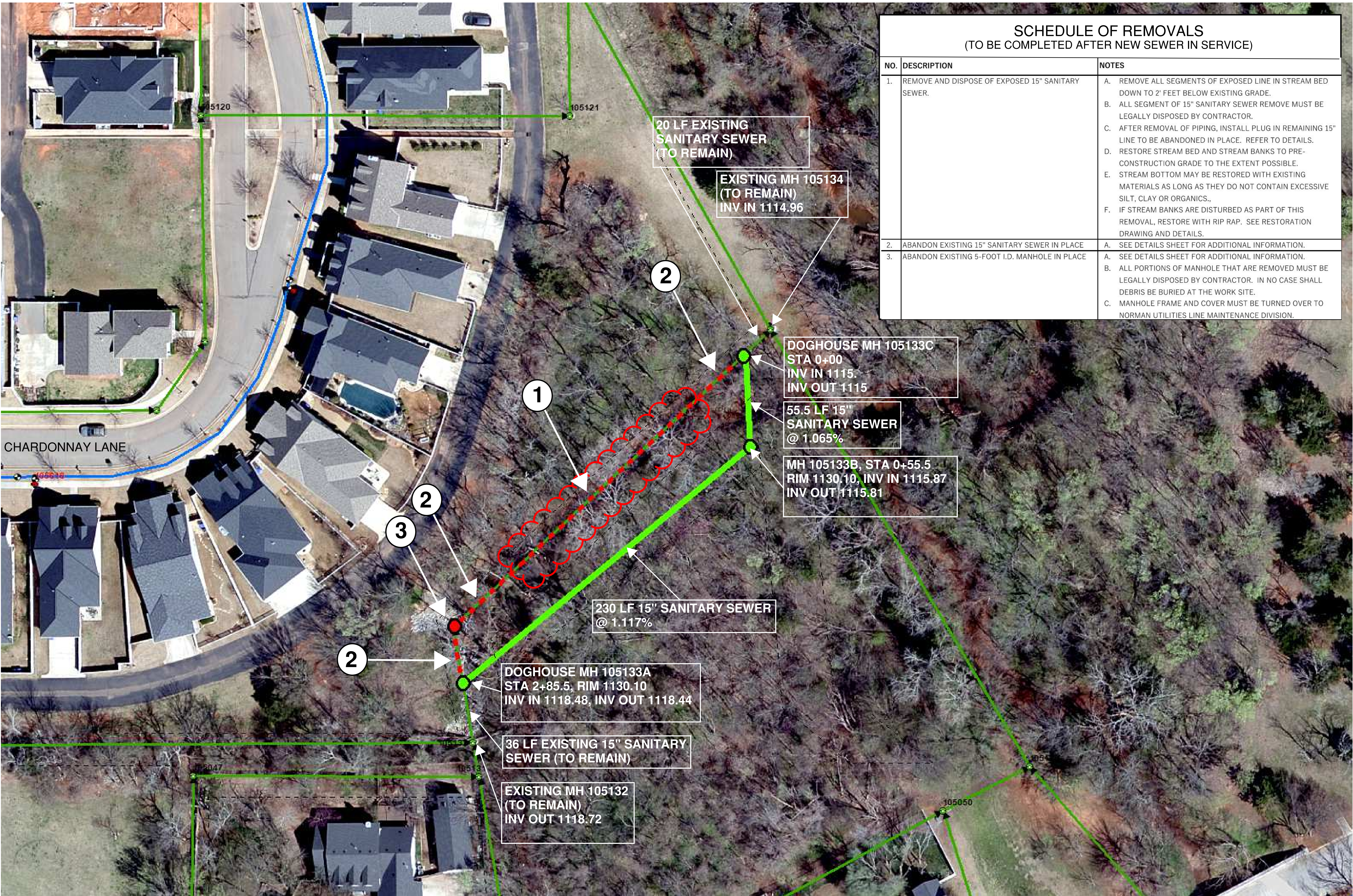


Kenneth J. Giannone

KENNETH J GIANNONE, PE
CAPITAL PROJECTS ENGINEER

4/22/2025

DATE



SCHEDULE OF REMOVALS (TO BE COMPLETED AFTER NEW SEWER IN SERVICE)		
NO.	DESCRIPTION	NOTES
1.	REMOVE AND DISPOSE OF EXPOSED 15" SANITARY SEWER.	A. REMOVE ALL SEGMENTS OF EXPOSED LINE IN STREAM BED DOWN TO 2' FEET BELOW EXISTING GRADE. B. ALL SEGMENT OF 15" SANITARY SEWER REMOVE MUST BE LEGALLY DISPOSED BY CONTRACTOR. C. AFTER REMOVAL OF PIPING, INSTALL PLUG IN REMAINING 15" LINE TO BE ABANDONED IN PLACE. REFER TO DETAILS. D. RESTORE STREAM BED AND STREAM BANKS TO PRE-CONSTRUCTION GRADE TO THE EXTENT POSSIBLE. E. STREAM BOTTOM MAY BE RESTORED WITH EXISTING MATERIALS AS LONG AS THEY DO NOT CONTAIN EXCESSIVE SILT, CLAY OR ORGANICS., F. IF STREAM BANKS ARE DISTURBED AS PART OF THIS REMOVAL, RESTORE WITH RIP RAP. SEE RESTORATION DRAWING AND DETAILS.
2.	ABANDON EXISTING 15" SANITARY SEWER IN PLACE	A. SEE DETAILS SHEET FOR ADDITIONAL INFORMATION.
3.	ABANDON EXISTING 5-FOOT I.D. MANHOLE IN PLACE	A. SEE DETAILS SHEET FOR ADDITIONAL INFORMATION. B. ALL PORTIONS OF MANHOLE THAT ARE REMOVED MUST BE LEGALLY DISPOSED BY CONTRACTOR. IN NO CASE SHALL DEBRIS BE BURIED AT THE WORK SITE. C. MANHOLE FRAME AND COVER MUST BE TURNED OVER TO NORMAN UTILITIES LINE MAINTENANCE DIVISION.



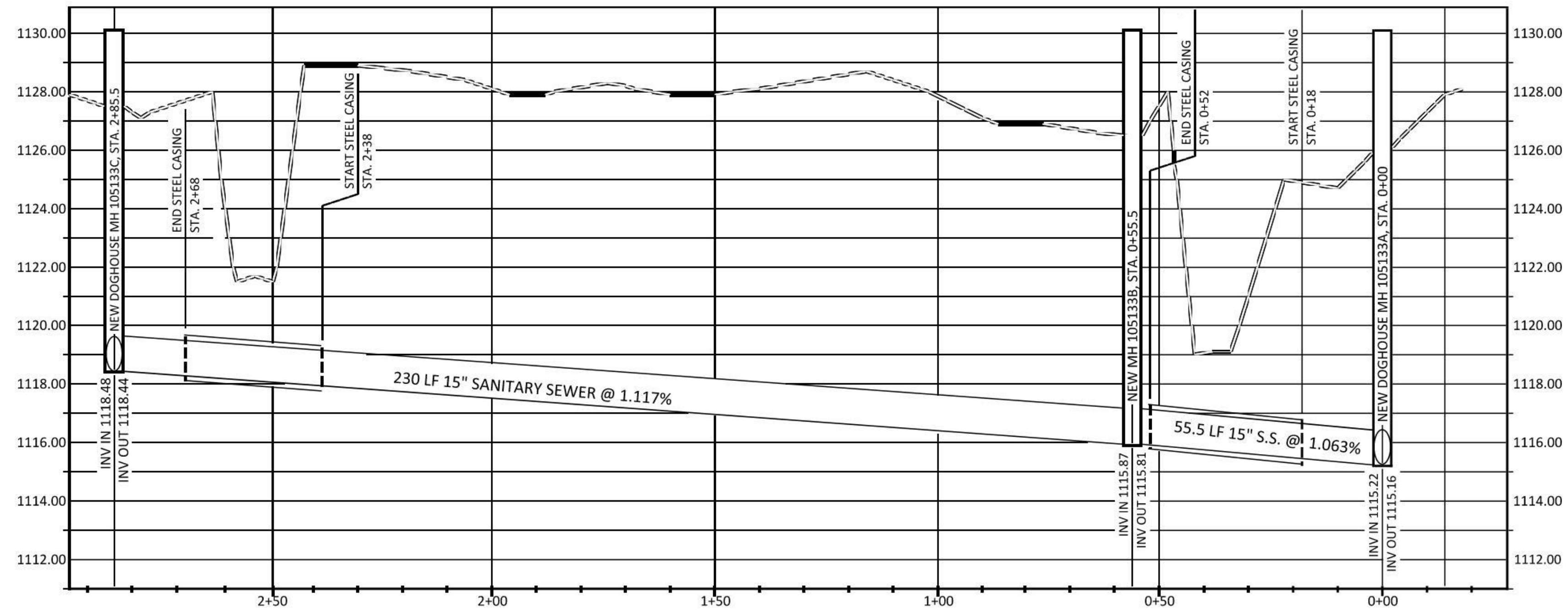
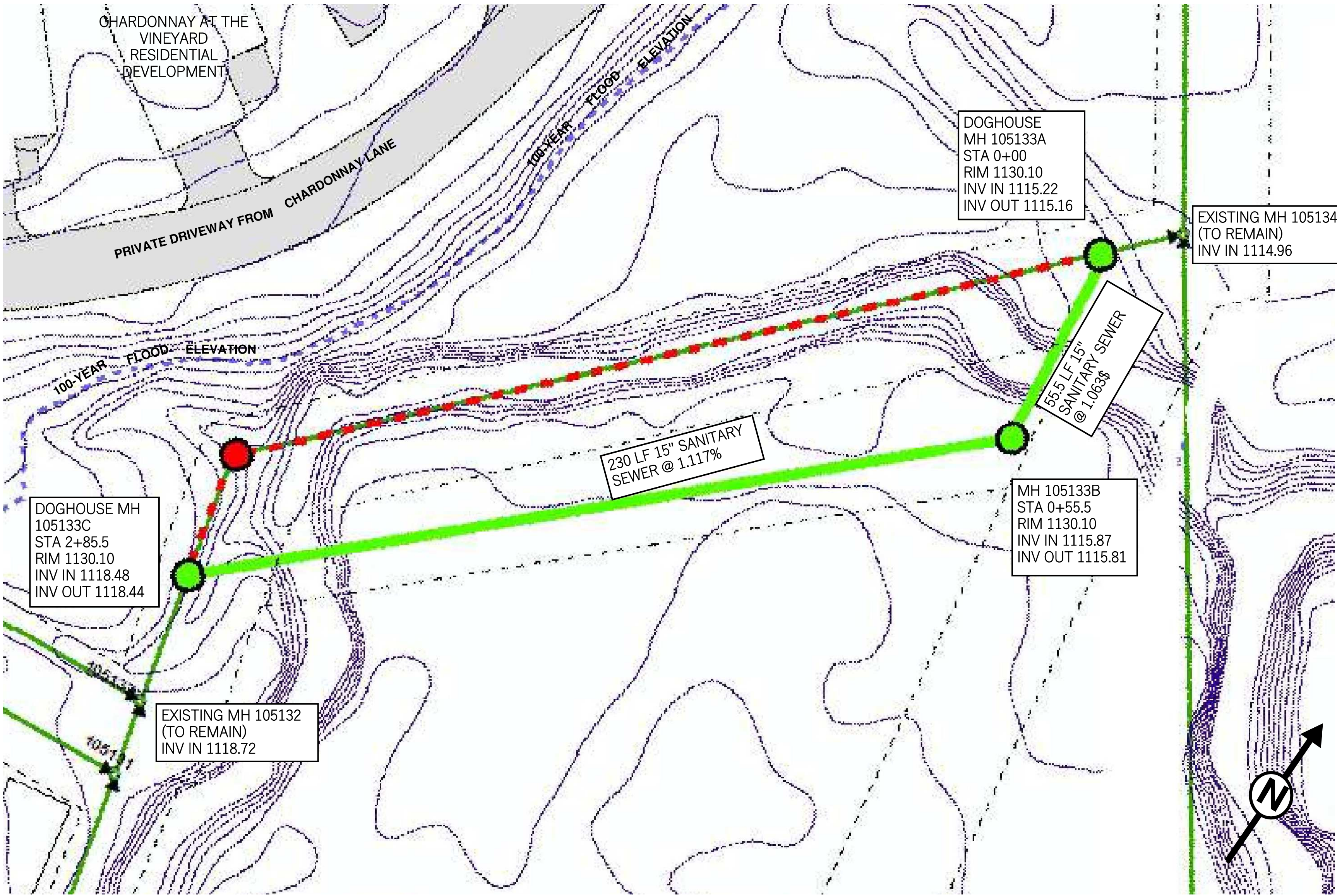
NORMAN UTILITIES AUTHORITY
225 N Webster Ave
Norman, OK 73069
(405)321-1600

PROJECT WW0XXX
WOODCREST INTERCEPTOR REALIGNMENT
AT CHARDONNAY LANE

SCALE:
N.T.S.

PREPARED BY:
KJG

SHEET 2 of 5
PROJECT
OVERVIEW &
REMOVALS



GENERAL NOTES

- CITY OR NORMAN STANDARD SPECIFICATIONS AND CONSTRUCTION DRAWINGS, FEBRUARY 28, 2023 VERSION, APPLY TO ALL WORK ON THIS PROJECT. ANY PROPOSED CHANGES TO STANDARD SPECIFICATIONS AND CONSTRUCTION DRAWINGS MUST BE APPROVED BY ENGINEER BEFORE ANY SUCH CHANGES MAY BE INCORPORATED INTO THE WORK. CONTRACTOR IS SOLELY RESPONSIBLE FOR COST OF ANY REWORK DUE TO IMPLEMENTATION OF UNAUTHORIZED CHANGES TO THE STANDARD SPECIFICATIONS AND CONSTRUCTION DRAWINGS.
- CONTRACTOR'S SURVEYOR MUST CONFIRM ALL MEASUREMENTS INCLUDING EXISTING INVERTS AND RIM ELEVATIONS BEFORE ORDERING MATERIALS AND/OR COMMENCING WORK. IF SUBSTANTIAL DIFFERENCES EXIST BETWEEN ACTUAL MEASUREMENTS AND THOSE SHOWN ON DRAWINGS, CONTRACTOR MUST IMMEDIATELY REPORT SUCH DISCREPANCIES TO ENGINEER FOR RESOLUTION.
- AFTER CONTRACTOR HAS COMPLETED LAYOUT OF PROJECT INCLUDING STAKING OF NEW MANHOLE LOCATIONS AND PRIOR TO ANY WORK COMMENCING OR MANHOLES BEING ORDERED ON THE PROJECT, CONTRACTOR'S REPRESENTATIVE AND ENGINEER MUST MEET AND WALK THE ALIGNMENT. IF DISCREPANCIES OR CONFLICTS ARE OBSERVED, ENGINEER WILL RESOLVE PROMPTLY.
- PROPOSED SEQUENCE OF WORK:
 - NOTICE TO PROCEED
 - SUBMITTALS, FABRICATION AND DELIVERY OF ALL MATERIALS EXCEPT MANHOLES.
 - SURVEY AND LAYOUT.
 - CONTRACTOR AND ENGINEER WALKTHROUGH OF ALIGNMENT.
 - SUBMITTALS, FABRICATION AND DELIVERY OF PRECAST MANHOLES.
 - INSTALLATION OF SOIL EROSION AND SEDIMENTATION CONTROL DEVICES.
 - CLEARING. REFER TO GENERAL NOTE RE: CLEARING FOR ADDITIONAL INFORMATION.
 - INSTALL DOGHOUSE MANHOLE 105133C, LEAVING EXISTING 15" SANITARY SEWER IN SERVICE.
 - INSTALL 15' SANITARY SEWER AND MANHOLES STARTING AT DOGHOUSE MH 105133C.
 - TEST AND INSPECT ALL NEW 15" SANITARY SEWER AND MANHOLES.
 - COORDINATION MEETING WITH OWNER RE: BYPASS PUMPING.
 - COMMENCE BYPASS PUMPING AS NECESSARY.
 - CUT EXISTING 15" SANITARY SEWER AT DOGHOUSE MANHOLES AND INSTALL PERMANENT PLUGS IN EXISTING 15" LINE IN DIRECTION TO THE BE ABANDONED.
 - FORM, REINFORCE AND POUR CONCRETE FOR DOGHOUSE MANHOLE BASES, CHANNELS, AND BENCHES.
 - FURNISH AND INSTALL RAVEN LINING ON ALL INTERIOR SURFACES OF NEW MANHOLE INCLUDING CHANNELS AND BENCHES.
 - STOP BYPASS PUMPING AND PLACE NEW SEWER INTO SERVICE.
 - REMOVE AND LEGALLY DISPOSE OF EXPOSED, EXISTING 15" SANITARY SEWER LINE IN STREAM BED TO DEPTH OF 2' BELOW STREAM BOTTOM, AND INSTALL PLUGS WHERE LINES ARE TO BE ABANDONED IN PLACE.
 - ABANDON EXISTING MH 105133 IN PLACE.
 - COMPLETE RESTORATION AS PER RESTORATION DRAWINGS.
 - PUNCHLIST INSPECTION WITH OWNER/ENGINEER.
 - COMPLETE PUNCHLIST WORK, IF ANY.
 - FINAL INSPECTION.
- PRIOR TO COMMENCING REMOVAL OF PIPE IN DOGHOUSE MANHOLES AND REDIRECTING FLOW FROM EXISTING SANITARY SEWER TO THE NEWLY REALIGNED SEGMENT, CONTRACTOR MUST COMPLETE THE FOLLOWING:
 - SUCCESSFUL TESTING OF ALL NEW MANHOLES AND PIPELINES.
 - PREPARATION & SUBMISSION TO ENGINEER AND ENGINEER REVIEW & APPROVAL OF PROPOSED SEQUENCE FOR THIS PROCESS.
 - SEQUENCE MUST INCLUDE A LIST OF ACTIVITIES, RESOURCES REQUIRED, PROPOSED START DATE & TIMING.
 - SEQUENCE SHOULD START WITH TESTING OF NEW PIPE AND MANHOLES AND MUST INCLUDE, BUT NEED NOT NECESSARILY BE LIMITED TO THE FOLLOWING ACTIVITIES:
 - SETUP AND LAYOUT OF BYPASS PUMPING (IF REQUIRED BY PROPOSED CONSTRUCTION MEANS AND METHODS).
 - FORMING, REINFORCING, AND POURING OF CAST-IN-PLACE CONCRETE BASES, BENCHES AND CHANNELS FOR DOGHOUSE MANHOLES.
 - COMPLETION OF MANHOLE INTERIOR FINISH WORK INCLUDING, BUT NOT NECESSARILY LIMITED TO, SURFACE PREPARATION AND INSTALLATION OF REQUIRED EPOXY COATING ON INTERIOR WALLS, BENCHES AND CHANNELS.
 - FIELD COORDINATION MEETING, WHICH MUST CONVENE AFTER SUBMISSION OF PROPOSED SEQUENCE (SEE BELOW FOR ADDITIONAL INFORMATION).
 - APPROVAL BY ENGINEER OF SEQUENCE AND START DATE.
 - CUTTING PIPE AND REDIRECTING FLOW TO NEW SANITARY SEWER.
 - CONVENING A FIELD COORDINATION MEETING WITH, AT MINIMUM, ENGINEER, LINE MAINTENANCE AND CONTRACTOR STAFF TO REVIEW AND DISCUSS PROPOSED SEQUENCE OF WORK LEADING UP TO AND THEN PLACING NEW SANITARY SEWER INTO SERVICE.
 - AFTER FIELD COORDINATION MEETING, ENGINEER WILL EITHER APPROVE CONTRACTOR'S PROPOSED SEQUENCE AND PROPOSED START DATE OR WILL FURNISH CONTRACTOR WITH A LIST OF SPECIFIC REVISIONS OR ACTIONS REQUIRED IN ORDER FOR PLAN TO BE APPROVED.
- REGARDING ABANDONING EXISTING MANHOLE AND/OR EXISTING SANITARY SEWER LINE, CONTRACTOR IS ADVISED OF THE FOLLOWING:
 - NO WORK MAY COMMENCE UNTIL FLOW HAS BEEN COMPLETELY AND SUCCESSFULLY REROUTED TO NEWLY-REALIGNED SANITARY SEWER LINE.
 - BEFORE COMMENCING ANY WORK ON ABANDONMENT, ALL REMAINING WASTEWATER AND WASTE IN MANHOLE AND IN EXISTING SANITARY SEWER MUST BE REMOVED AND DISPOSED TO BEST OF CONTRACTOR'S ABILITY. IN NO CASE, MAY THIS MATERIAL BE ALLOWED TO ENTER WOODCREST CREEK OR ANY TRIBUTARIES THEREOF.
 - WITH AUTHORIZATION OF ENGINEER OR ENGINEER'S REPRESENTATIVE, CONTRACTOR MAY PUMP THIS WASTEWATER INTO AN ADJACENT ACTIVE MANHOLE.
 - WITH EXCEPTION OF MANHOLE FRAME AND COVER (WHICH MUST BE TURNED OVER TO CITY OF NORMAN LINE MAINTENANCE DIVISION), ALL MATERIALS REMOVED AS PART OF THE ABANDONMENT PROCESS MUST BE REMOVED FROM THE PROJECT AND LEGALLY DISPOSED. IN NO CASE SUCH MATERIALS BE DURIED ON SITE.
 - REFER TO DRAWING SHEETS FOR PROJECT OVERVIEW & REMOVALS AND DETAILS FOR ADDITIONAL INFORMATION ON ABANDONING EXISTING MANHOLE AND EXISTING 15" SANITARY SEWER.
- REFER TO RESTORATION DRAWING FOR ADDITIONAL DETAILS ON REQUIRED RESTORATION AND PAYMENT WIDTHS OF RESTORATION.
- REFER TO OTHER DRAWING SHEETS FOR ADDITIONAL OTHER NOTES.



**NORMAN
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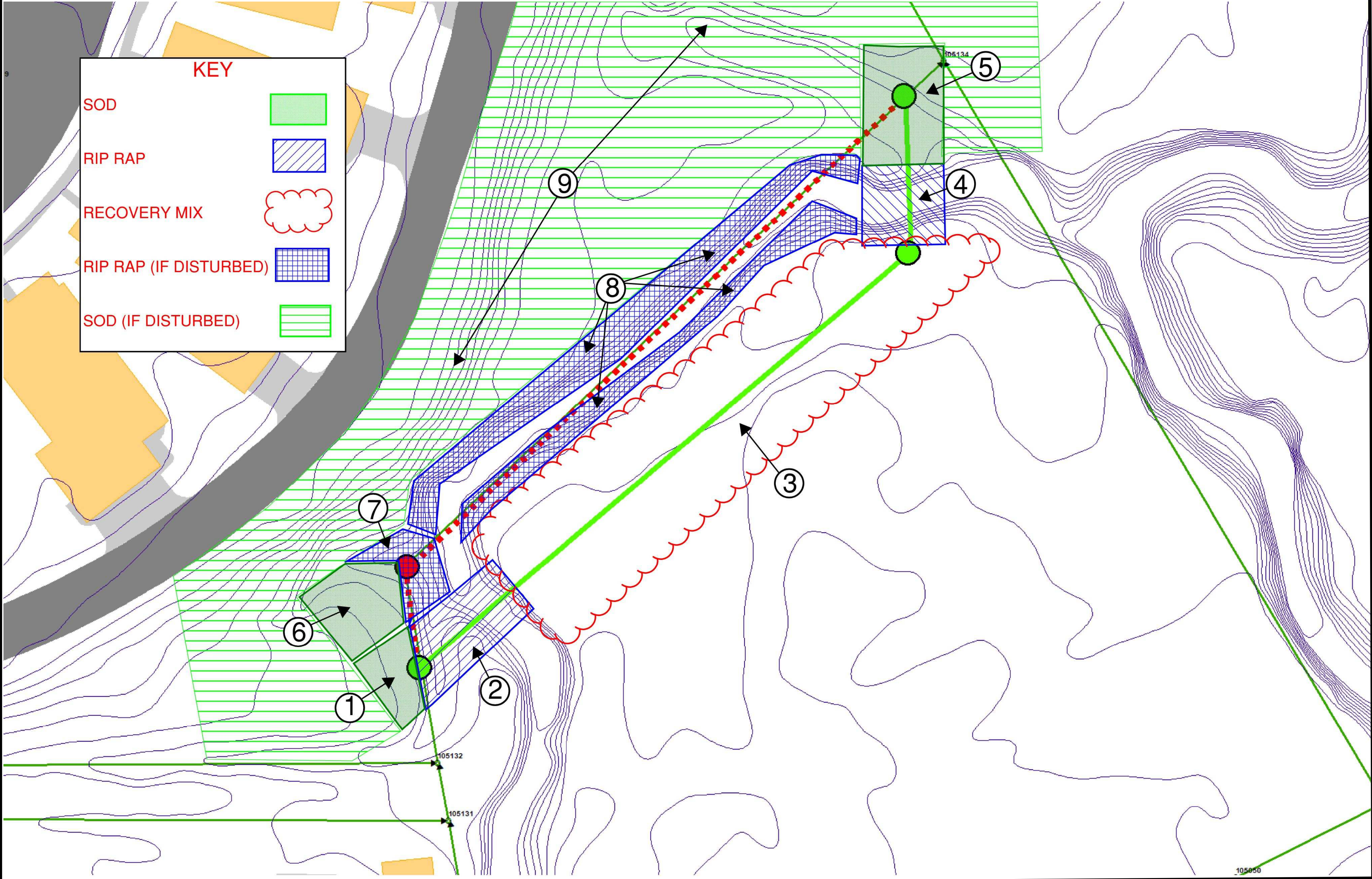
225 N Webster Ave
Norman, OK 73069
(405)321-1600

PROJECT WWOXXX
WOODCREST INTERCEPTOR REALIGNMENT
AT CHARDONNAY LANE

Scale:
NTS

Prepared by: KJG

SHEET 3 of 5
PLAN &
PROFILE
AND NOTES



Restoration Schedule

NO.	REQUIRED RESTORATION	BETWEEN		NOTES
		STA.	STA.	
1	SOD	0-20	0+00	a. PAYMENT WIDTH IS 20' WIDE.
2	RIP RAP	0+00	0+42	a. PAYMENT WIDTH IS 20' WIDE.
3	RECOVERY MIX	0+42	2+30	a. ALL DISTURBED AREAS IN THIS LOCATION MUST RECEIVE RECOVERY MIX
4	RIP RAP	2+30	2+64	a. PAYMENT WIDTH IS 20' WIDE.
5	SOD	2+64	3+06	a. PAYMENT WIDTH IS 20' WIDE.
6	RIP RAP	N/A	N/A	a. FOR ABANDONMENT OF EXISTING MH 105133. b. PAYMENT WILL BE FOR ACTUAL SY OF RIP RAP INSTALLED WITHIN LIMITS SHOWN.
7	SOD	N/A	N/A	a. FOR ABANDONMENT OF EXISTING MH 105133. b. PAYMENT WILL BE FOR ACTUAL SY OF SOD INSTALLED WITHIN LIMITS SHOWN.
8	RIP RAP	N/A	N/A	a. RIP RAP IS ONLY REQUIRED ON STREAM BANKS IF AND WHERE BANKS ARE DISTURBED BY REMOVAL/ABANDONMENT OF EXISTING SANITARY SEWER.
9	SOD	N/A	N/A	a. LOCATION INCLUDES AREA TO NORTH NOT SHOWN ON DRAWING b. SOD IN THIS LOCATION SHALL ONLY BE PLACED IN AREAS DISTURBED BY WORK, STAGING OR ACCESS. c. COST OF ANY SOD REQUIRED IN THIS LOCATION SHALL BE CONSIDERED INCIDENTAL TO THE WORK.

Restoration Notes

- REFER TO RESTORATION DRAWINGS AND RESTORATION SCHEDULE ON THIS DRAWING SHEET FOR DETAILS ON RESTORATION REQUIREMENTS.
- CONTRACTOR IS HEREBY ADVISED THAT RESTORATION DRAWING AND RESTORATION SCHEDULE MUST BE TREATED AS COMPLEMENTARY. ANY CONFLICTS BETWEEN THE TWO SHOULD BE IMMEDIATELY REPORTED TO ENGINEER FOR CLARIFICATION.
- REFER TO *CITY OF NORMAN STANDARD SPECIFICATIONS AND CONSTRUCTION DRAWINGS*, FEBRUARY 28, 2023 VERSION FOR ADDITIONAL INFORMATION AND DETAILS ON RESTORATION REQUIREMENTS..
- FINISHED GRADES SHOULD MATCH EXISTING, PRE-CONSTRUCTION GRADES TO THE EXTENT POSSIBLE.
- CONTRACTOR MUST MAKE ALL POSSIBLE EFFORTS TO MINIMIZE DAMAGE TO EXISTING TREE AND SHRUBS INCLUDING ROOTS. IF CONTRACTOR DEEMS IT NECESSARY TO REMOVE ANY TREE GREATER THAN 3" IN DIAMETER, CONTRACTOR MUST CONFIRM WITH ENGINEER BEFORE REMOVAL.
- ANY TREES OR SHRUBS REMOVED AS PART OF THIS WORK INCLUDING STUMPS, BRANCHES AND ANY OTHER ORGANIC MATERIALS, MUST BE REMOVED FROM THE WORK AREA AND LEGALLY DISPOSED. IN NO CASE WILL TREES, SHRUBS, BRANCHES, STUMPS, ROOTS OR ANY OTHER DEBRIS RESULTING FROM WORK BE BURIED AT THE PROJECT SITE.
- ALONG STATIONS WHERE SOD OR RIP RAP ARE CALLED OUT FOR RESTORATION, ALL AREAS DISTURBED BY PROJECT WORK MUST BE RESTORED WITH SOD OR RIP RAP EVEN IF BEYOND PAYMENT WIDTHS. ALSO NOTE THE FOLLOWING REGARDING SOD AND/OR RIP RAP INSTALLATION:
 - PAYMENT WIDTH ALONG PIPELINE INSTALLATION WILL BE A MAXIMUM OF 20' WIDE. IN NO WAY SHOULD THIS PAYMENT WIDTH BE CONSTRUED TO LIMIT CONTRACTOR'S OBLIGATION AS OUTLINED IN NOTE 7 ABOVE.
 - AT LOCATIONS WHERE RIP RAP IS SHOWN WITHIN STREAM CHANNEL, THE SURFACE OF THE RIP RAP SHOULD MATCH ELEVATION OF EXISTING STREAM BED.
 - REGARDING SEGMENT OF STREAM WHERE EXISTING 15" SANITARY SEWER IS TO BE ABANDONED, RIP RAP SHALL ONLY BE INSTALLED AT STREAM BANKS THAT ARE DISTURBED IN THE PROCESS OF REMOVING/ABANDONING PIPE. IN THE STREAM BED IN THESE SAME AREAS, EXISTING MATERIAL MAY BE USED FOR RESTORATION WHICH SHOULD BE GRADED TO ORIGINAL ELEVATION OF STREAM BED.
- ALL DISTURBED AREAS ON PROJECT NOT IN WITHIN STREAM BANKS AND/OR NOT CALLED OUT FOR RIP RAP OR SOD IN THE RESTORATION SCHEDULE/DRAWING SHALL BE PLANTED WITH SCORCHED EARTH RECOVERY MIX AVAILABLE AT: <https://seedsourcescorched-esrth-recovery-mix> . NOTE THE FOLLOWING REGARDING THIS MATERIAL:
 - MIX MUST BE PLANTED IN ACCORDANCE WITH ALL SUPPLIER RECOMMENDATIONS.
 - MIX SHOULD BE PLANTED IN SPRING OR FALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. IF MIX IS PLANTED IN SUMMER OR WINTER, REFER TO NOTE 7D BELOW.
 - MIX MUST BE PLANTED AT A MINIMUM RATE OF 12 LBS/1500 SF.
 - IF, THREE MONTHS AFTER INSTALLATION, MIX HAS NOT GERMINATED SUFFICIENTLY, CONTRACTOR MUST OVERSEED ENTIRE AREA A SECOND TIME FOLLOWING ALL MANUFACTURER EQUIREMENTS AS OUTLINED IN THIS SECTION.



NORMAN UTILITIES AUTHORITY
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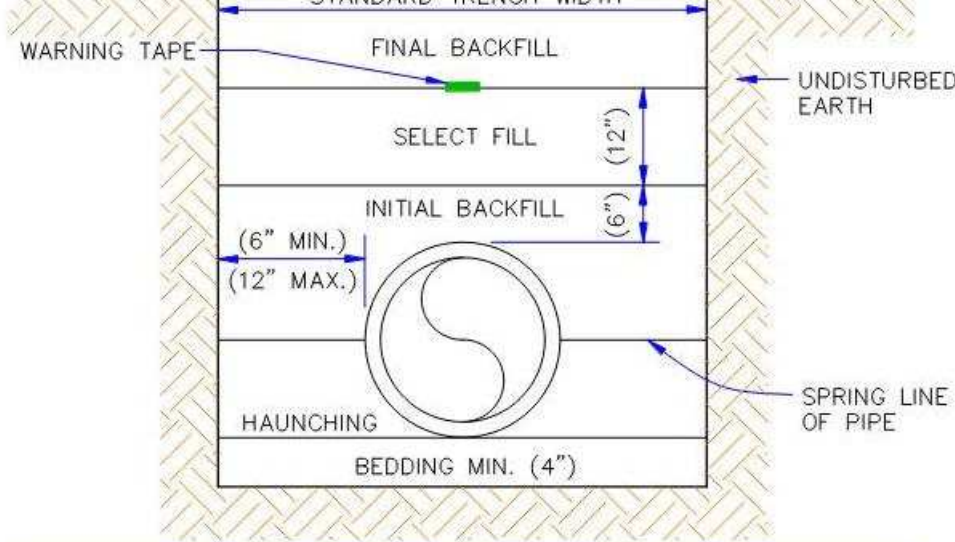
PROJECT WW0XXX
WOODCREST INTERCEPTOR REALIGNMENT
AT CHARDONNAY LANE

SCALE:
N.T.S.

PREPARED BY:
KJG

SHEET 4 OF 5
RESTORATION
PLAN, SCHED.
& NOTES

PIPE INSIDE DIAMETER (IN.)	STANDARD TRENCH WIDTH (IN.)
≤18	36
21	42
24	42
27	48
30	48
36	54
42	60
48	66
54	72
60	78
66	84



BEDDING MATERIALS					
BACKFILL DESCRIPTION	NON-PAVED AREAS		PAVED AREAS (See Note 7)		
	PVC	HDPE	PVC	DIP	HDPE
FINAL BACKFILL	EXCAVATED MATERIAL	EXCAVATED MATERIAL	SBM	SBM	SBM
SELECT BACKFILL	SELECT FILL	SELECT FILL	SBM	SBM	SBM
INITIAL BACKFILL	COVER ≤10' SBM ≤10' SBM	COVER ≤10' SBM ≤10' SBM	SBM	SBM	SBM
HAUNCHING	COVER ≤10' SBM ≤10' SBM	COVER ≤10' SBM ≤10' SBM	SBM	SBM	SBM
BEDDING	See Note 5	See Note 5	See Note 5	See Note 5	See Note 5

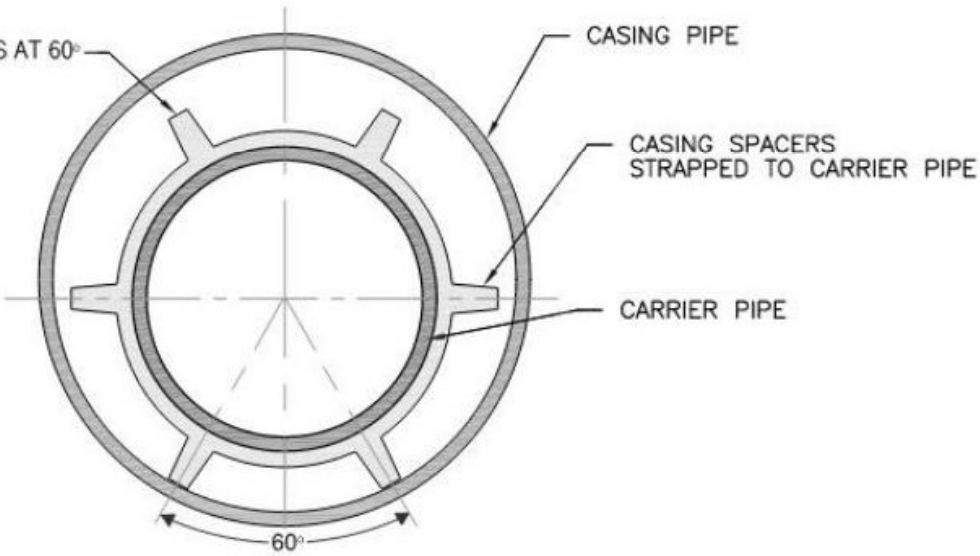
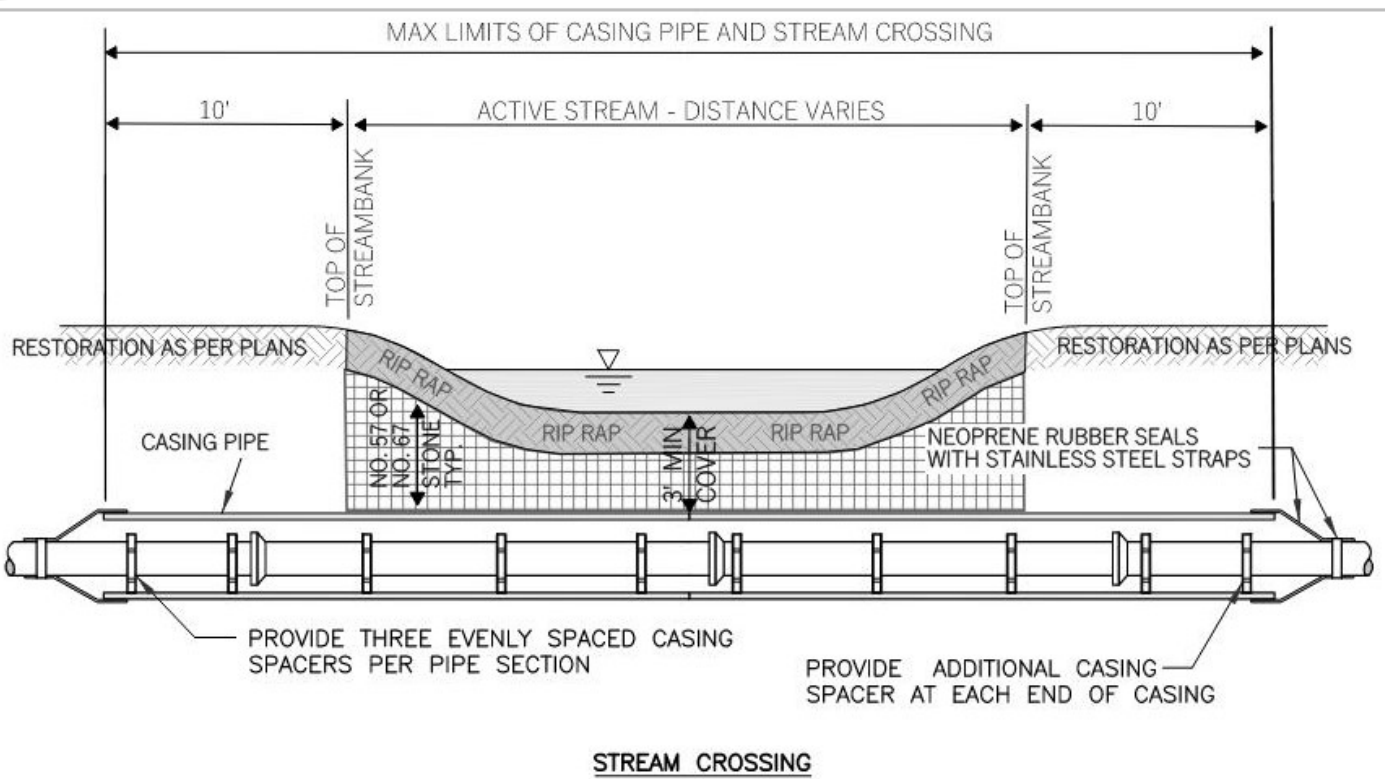
MINIMUM PIPE GRADE					
PIPE DIAMETER IN INCHES	DESIGN GRADE	MINIMUM CONSTRUCTED GRADE	PIPE DIAMETER IN INCHES	DESIGN GRADE	MINIMUM CONSTRUCTED GRADE
(6")	0.750%	0.500%	(15")	0.220%	0.150%
(8")	0.500%	0.400%	(18")	0.170%	0.120%
(10")	0.370%	0.290%	(21")	0.140%	0.100%
(12")	0.290%	0.220%	(24")	0.120%	0.080%

NOTES:

- BACK FILLING FOR PVC PIPE SHALL MEET THE REQUIREMENTS OF ASTM D 2321.
- SELECT FILL CONSISTS OF EXCAVATED MATERIALS CONTAINING NO ROCKS LARGER THAN (2").
- STANDARD BEDDING MATERIAL (SBM) SHALL CONFORM TO ODOT 703.01, TYPE "A" AGGREGATE BASE, OR FLOWABLE FILL PER SECTION 501.02 (B).
- COMPACTION REQUIREMENTS:
 - NON-PAVED AREAS: 90% MAXIMUM STANDARD PROCTOR DENSITY FOR COHESIONLESS SOILS AND 85% FOR COHESIVE SOILS.
 - PAVED AREAS: 95% MAXIMUM STANDARD PROCTOR DENSITY FOR COHESIONLESS SOILS.
- IF TRENCH IS DRY, BEDDING SHALL BE (4") TYPE "A" AGGREGATE BASE. IF WET, BEDDING SHALL BE NO. 57 OR NO. 67 ROCK PER SECTION 701.06 (C). IF POOR SOIL CONDITIONS ARE ENCOUNTERED, DEPTH SHALL BE OVER EXCAVATE AND STABILIZED WITH AGG. BASE.
- NO WATER JETTING ALLOWED UNDER PAVEMENT AREAS. (EXISTING OR PROPOSED)
- THE BACKFILL MATERIAL (ODOT TYPE "A") SHALL EXTEND A MINIMUM OF 2'-FEET BEHIND THE BACK OF CURB, OR EDGE OF PAVEMENT WHERE NO CURB EXISTS.
- WARNING TAPE SHALL BE INSTALLED ABOVE ALL NEW UNDERGROUND PIPING AFTER PLACEMENT OF SELECT FILL AS PER SECTION 2506.1 (J)
- ONE (1) CLAY PIPE PLUS OR WATER DAM IS REQUIRED BETWEEN EACH MANHOLE. CLAY DAM SHALL BE THE FULL WIDTH OF THE TRENCH, FIVE (5) LONG AND EXTEND A MINIMUM OF (24") ABOVE THE TOP OF THE SEWER MAIN.

SANITARY SEWER PIPE TRENCHING AND BEDDING

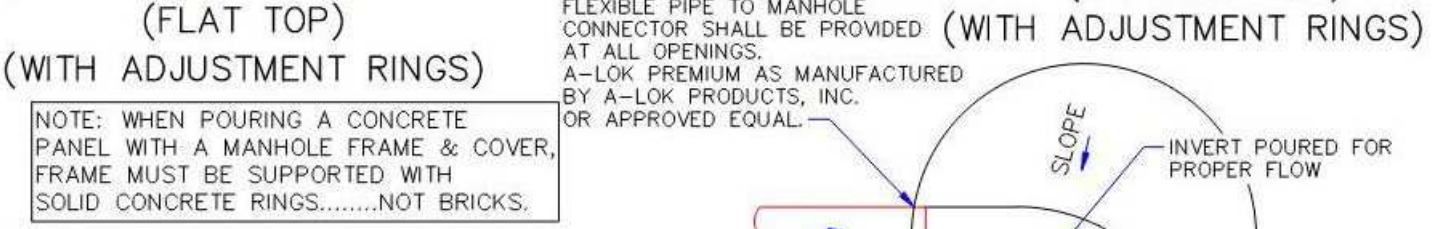
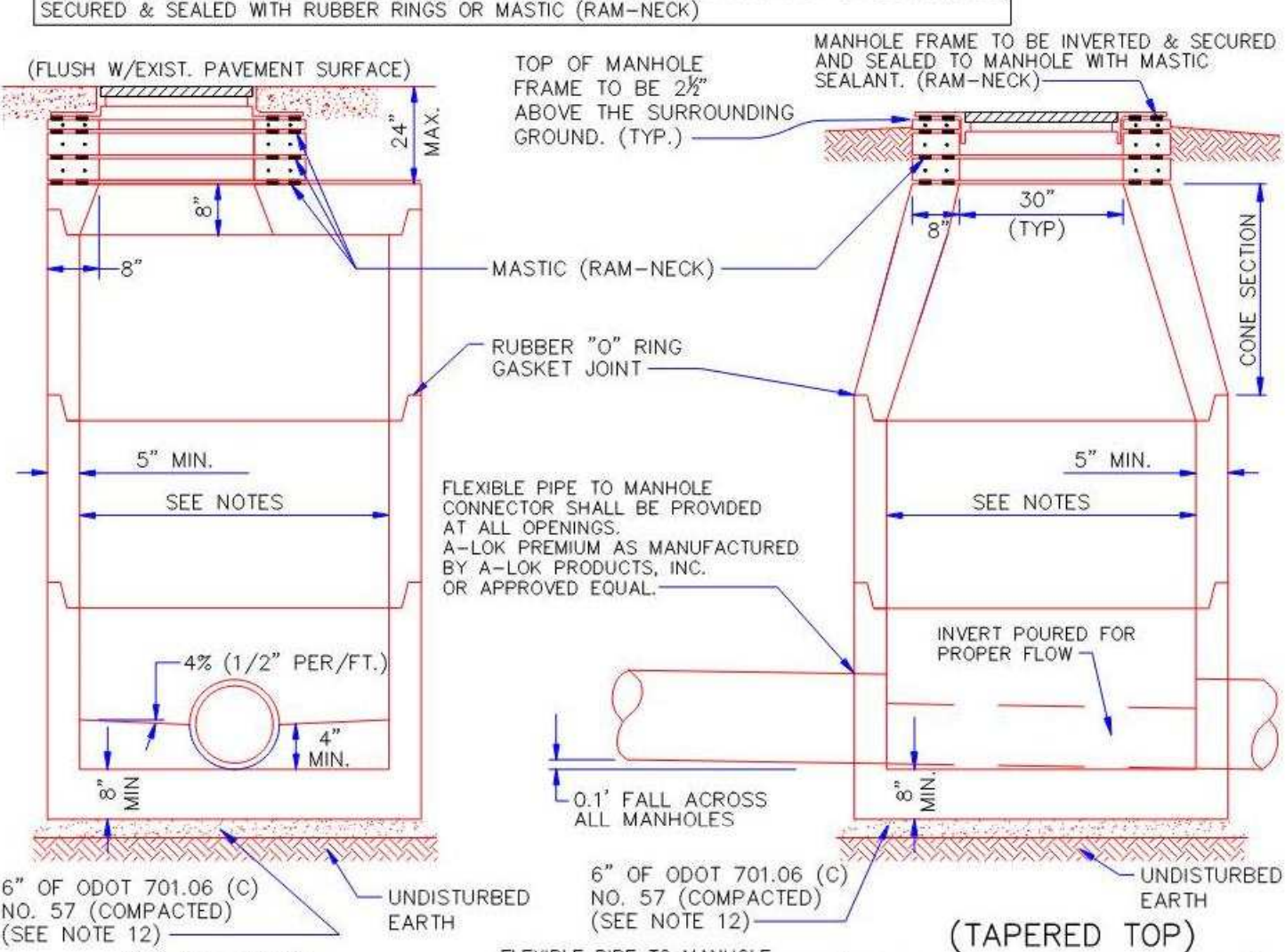
City Engineer Approval:		CITY OF NORMAN, OKLAHOMA	
Approval Date:	Revision Date: 9-1-2020	Rev. No.	DRAWING NO. SS 01



NOTES:

- FOR 15" OR 16" CARRIER PIPE CASING PIPE MUST BE A MINIMUM OF 24" IN DIAMETER.
- CASING PIPE MUST HAVE A MINIMUM THICKNESS OF 0.250".
- EXTERIOR OF CASING PIPE MUST BE COATED WITH SHERWIN WILLIAMS HI-MIL SHER-TAR EPOXY OR APPROVED EQUAL TO A MINIMUM DFT OF 16 MILS.
- CASING SPACERS MUST BE STAINLESS STEEL WITH STAINLESS STEEL STRAPS.
- WITHIN STREAMBANKS, BACKFILL TO SUBGRADE OF RIP RAP WITH NO. 57 OR NO. 67 STONE.
- STATIONING FOR STARTING AND STOPPING CASING PIPE ARE APPROXIMATE. CASING PIPE SHOULD START AND STOP 10' FROM TOP OF STREAM BANK AT TIME OF INSTALLATION.

CASING AND STREAM CROSSING DETAIL
(N.T.S.)

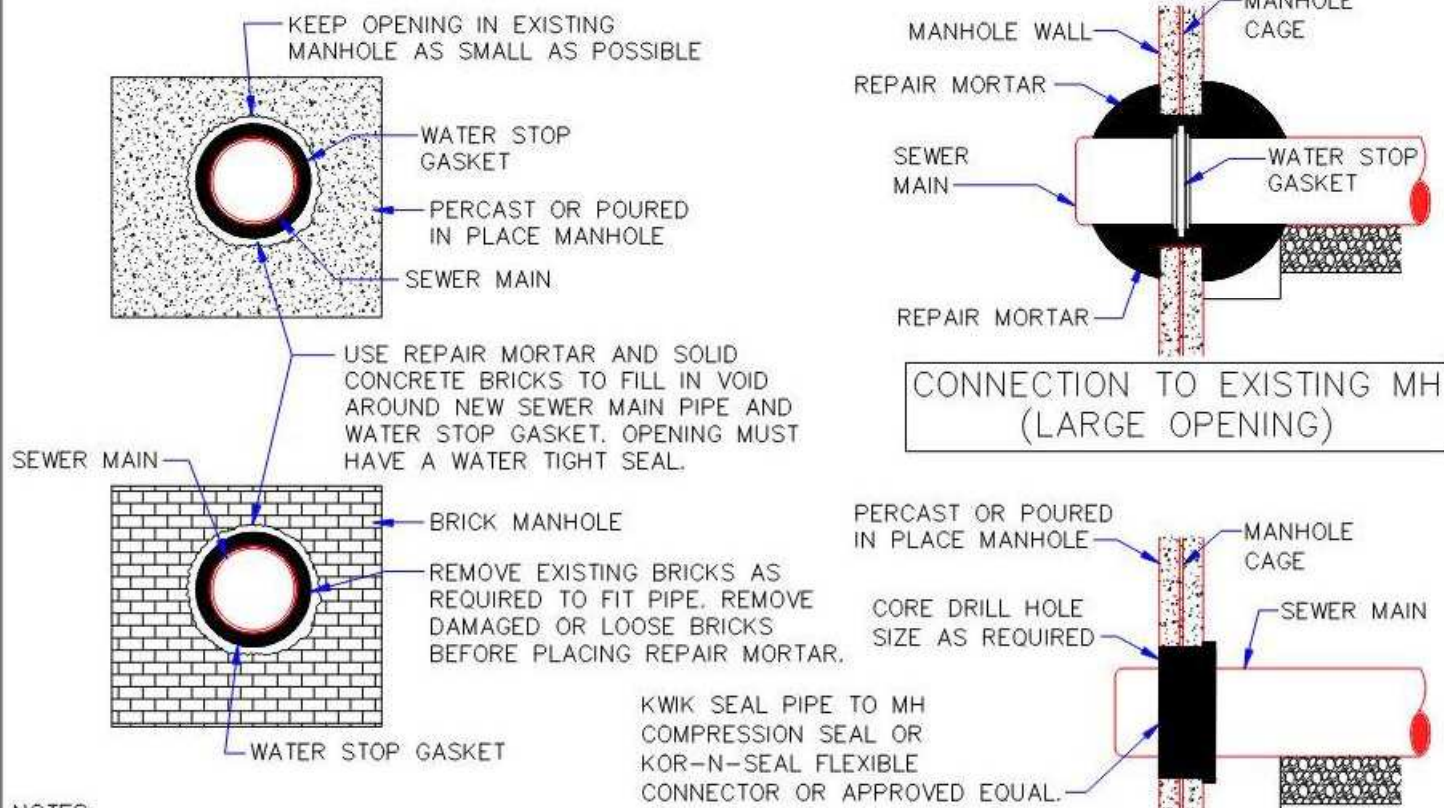
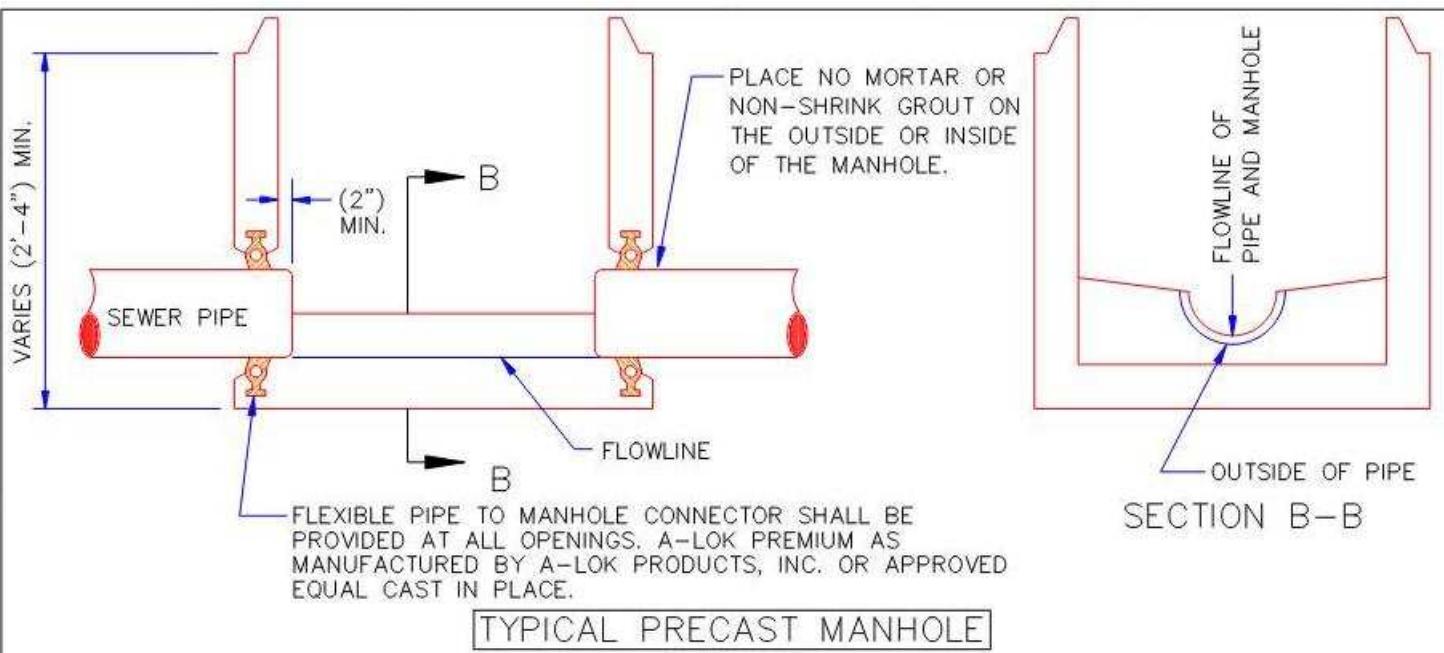


NOTES:

- MH SHALL CONFORM TO CURRENT ASTM C-478.
- 8" TO 15" PIPE, 4" ID MANHOLE REQUIRED.
- NOT USED.
- 5" ID MANHOLE REQUIRED FOR ALL STANDARD AND DOGHOUSE MANHOLES.
- OVER 27" PIPE MANHOLE ID AS SPECIFIED BY ENGINEER.
- MIN. CONCRETE STRENGTH TO BE ODOT CLASS A, 4000 PSI @ 28 DAYS.
- MANHOLE DEPTH IS VARIABLE, STANDARD MANHOLE DEPTH IS 6'-0"
- CAST IN PLACE MANHOLES MAY ONLY BE USED WITH WRITTEN PERMISSION OF THE OWNER.
- MANHOLES LESS THAN 4'-6" IN HEIGHT SHALL HAVE A FULL (4") ID OR LARGER FROM TOP TO BOTTOM.
- IN ASPHALT STREETS, MANHOLES SHALL HAVE (4"x4"x8") CONCRETE COLLARS W/4-#5 DEFORMED REINFORCING BARS.
- ALL BACKFILL MATERIAL USED AROUND MANHOLE SHALL BE MECHANICALLY TAMPED IN 12" LIFTS.
- IF POOR SOIL CONDITIONS ARE ENCOUNTERED, DEPTH SHALL BE OVER EXCAVATED AND STABILIZED WITH AGG. BASE.
- ODOG HAS GRANTED NUA A VARIANCE FROM ITS REQUIRED DROP MANHOLE - (NONE REQUIRED).
- IF MANHOLE IS IN THE STREET THE FRAME SHALL BE INVERTED UP AS SHOWN ON SSO4c SECTION/INVERTED DETAIL.

PRECAST MANHOLE

City Engineer Approval:		CITY OF NORMAN, OKLAHOMA	
Approval Date:	Revision Date: 6-1-2023	Rev. No.	DRAWING NO. SS 02

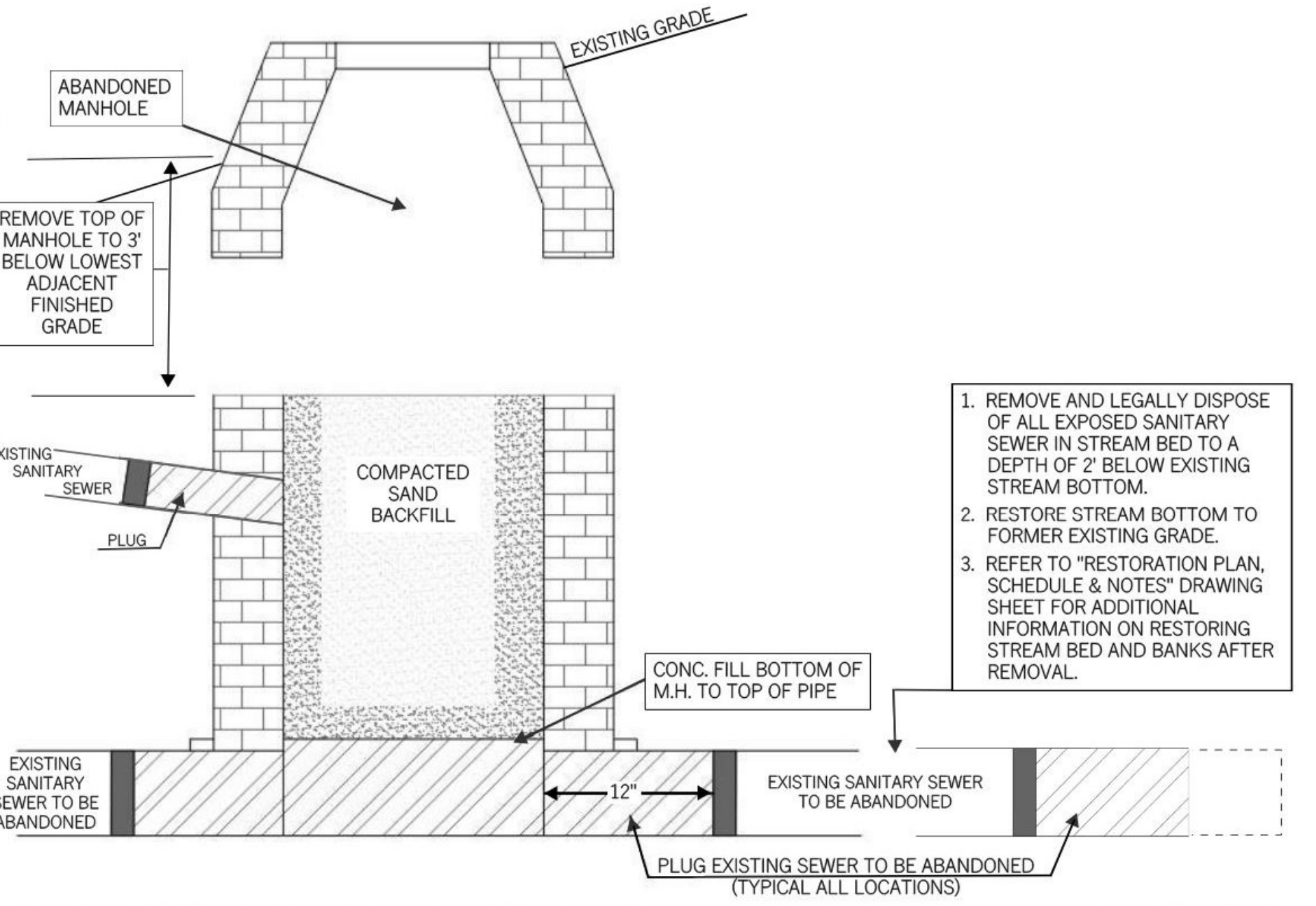


NOTES:

- CORE HOLE MUST BE DRILLED TO THE PROPER SIZE. THIS IS BASED ON THE PIPE SIZE & TYPE OF SEAL TO BE USED. FOLLOW MFG'S SPECIFICATIONS.
- NEW AND EXISTING PRECAST CONCRETE MANHOLES CAN BE CORE DRILLED.
- INSTALL PIPE GASKET SEAL IN CORE HOLE PER MFG'S SPECIFICATIONS.
- ENGINEER SHALL APPROVE THE TYPE OF PIPE GASKET SEAL TO BE USED.
- USE FAST SET STRUCTURAL REPAIR MORTAR TO SEAL AROUND WATER STOP GASKET.
- OPENINGS MADE IN EXISTING MH'S SHALL BE KEPT AS SMALL AS POSSIBLE.
- SOLID CONCRETE BRICKS CAN BE USED TO FILL LARGE VOIDS AROUND PIPE OPENING WHEN USING REPAIR MORTAR.

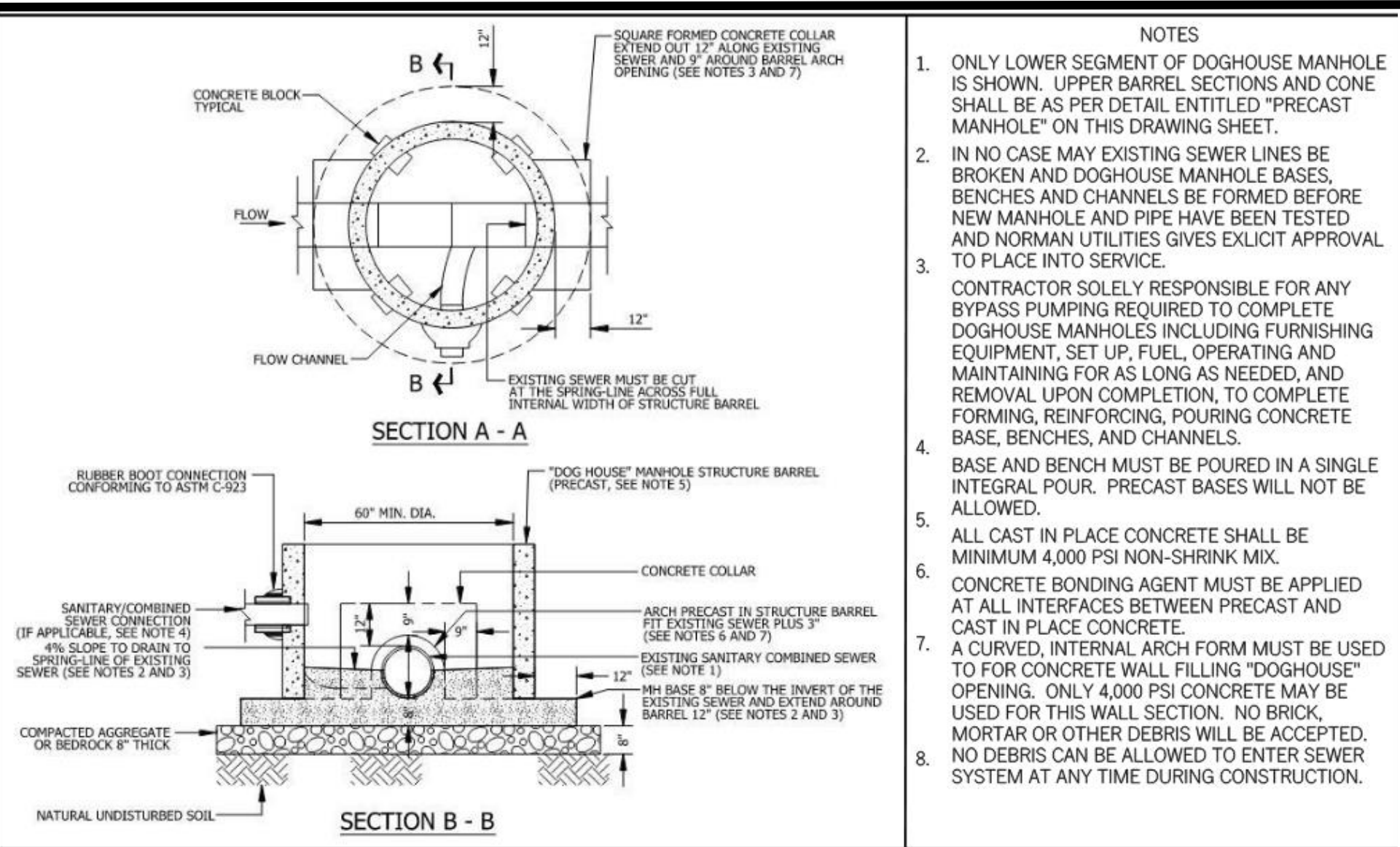
MANHOLE CONNECTIONS

City Engineer Approval:		CITY OF NORMAN, OKLAHOMA	
Approval Date:	Revision Date: 5-15-23	Rev. No.	DRAWING NO. SS 05A

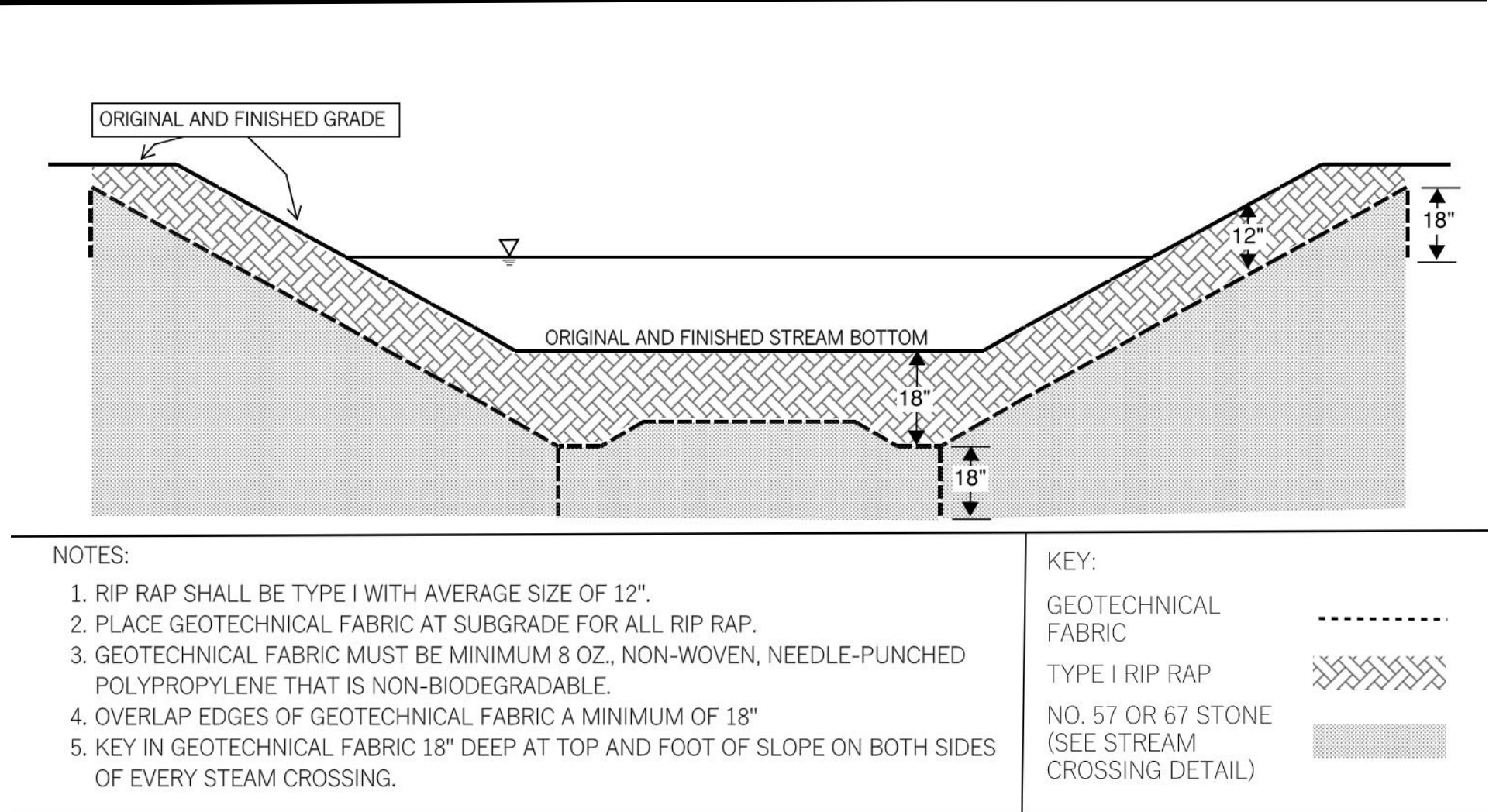


NOTE: RING AND COVER OF ABANDONED MANHOLE MUST BE SALVAGED AND DELIVERED TO NORMAN UTILITIES LINE MAINTENANCE DIVISION

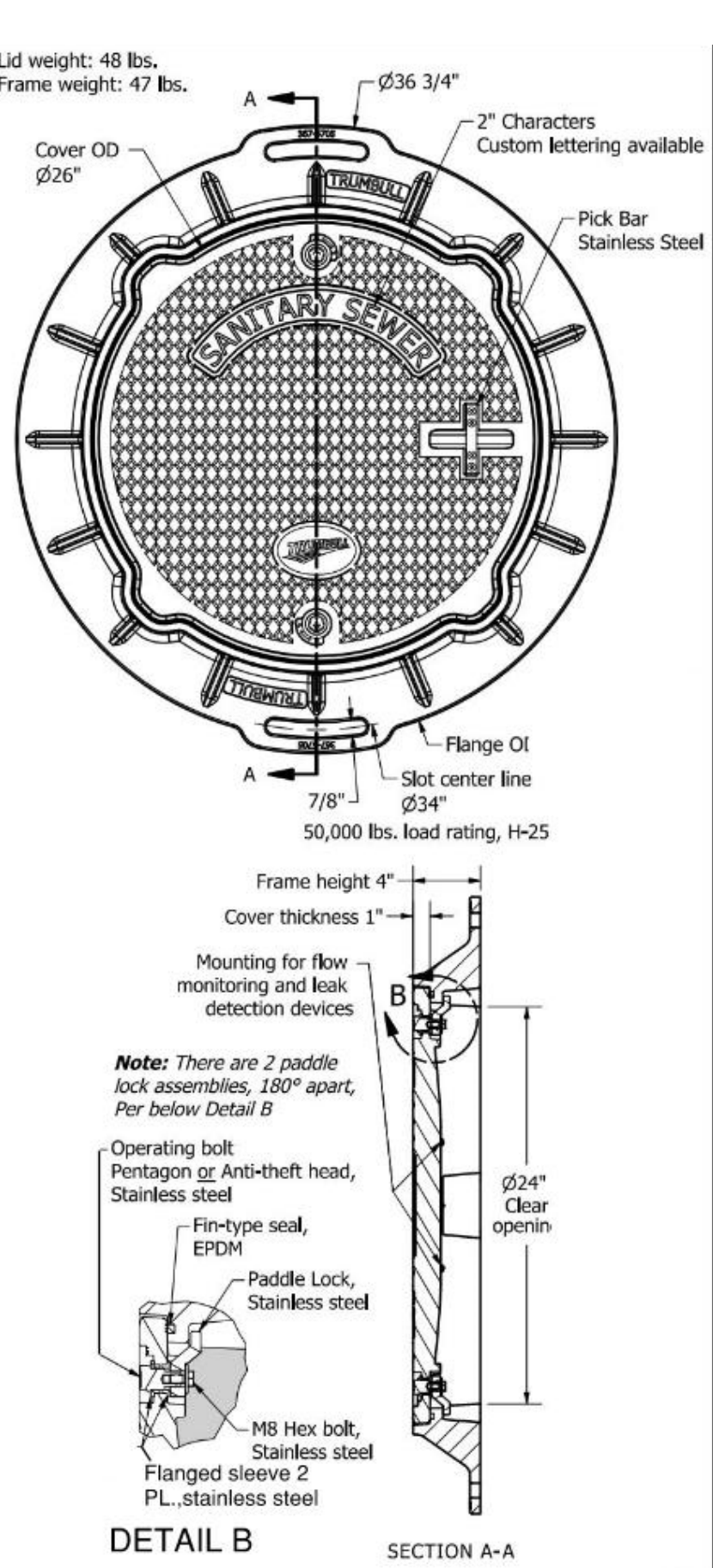
ABANDONING MANHOLE AND SANITARY SEWER DETAIL



DOGHOUSE MANHOLE



RIP RAP DETAIL (N.T.S.)



NOTES

- FURNISH AND INSTALL FOR ALL MANHOLES SUPPLIED FOR PROJECT.
- COMPOSITE LIDS AND FRAMES MUST BE MANUFACTURED BY TRUMBULL MANUFACTURING OF YOUNGSTOWN, OH.
- FRAME MUST BE TRUMBULL PART NO. 367-5705.
- LID MUST BE TRUMBULL PART NO. 367-5703.
- IF REQUIRED, GRADE RINGS MUST BE CRETEX PRO-RING.
- LID MUST HAVE NORMAN UTILITIES STANDARD LOGO, WHICH CAN BE OBTAINED BY ORDERING THROUGH CORE & MAIN, OKLAHOMA CITY

26" COMPOSITE MANHOLE LID & FRAME
(24" FRAME CLEAR OPENING, PADDLE LOCK)



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PROJECT WWOXXX
WOODCREST INTERCEPTOR REALIGNMENT
AT CHARDONNAY LANE

SCALE:
N.T.S.

PREPARED BY:
KJG

SHEET 5 OF 5

DETAILS