1. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.	GRADING NOTES:
 DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF `ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING. OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION. 	 TOPSOIL AND FILL, SUCH AS THOSE CONTAINING SIGNIFICANT AMOUNTS OF ORGANIC OF DELETERIOUS MATERIALS, SHOULD BE STRIPPED FROM UNDER ANY BUILDINGS, PAVED A BEDDING AND OTHER SETTLEMENT SENSITIVE STRUCTURES. AS DIRECTED BY THE SITE OR GEOTECHNICAL ENGINEER.
 BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR \$5,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED. RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO 	2. SITE-EXCAVATED SOIL CAN BE PLACED AS GENERAL LANDSCAPING FILL WHERE SETTLE MINOR CONCERN OF THE GROUND SURFACE. THESE MATERIALS SHOULD BE SPREAD IN AND AT LEAST COMPACTED BY THE TRACKS OF THE SPREADING EQUIPMENT TO MINIMIZ THESE MATERIALS ARE TO BE PLACED TO INCREASE THE SUBGRADE LEVEL FOR AREAS
 EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED 	PAVED, THE FILL SHOULD BE COMPACTED IN MAXIMUM 300 mm THICK LIFTS AND TO A MI DENSITY OF 95% OF THE RESPECTIVE SPMDD
OF AT A LICENSED LANDFILL FACILITY. 7. ALL DIMENSIONS AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION. IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.	3. CONSIDERATION MAY BE GIVEN FOR LEAVING IN-SITU FILL IN PLACE AT THE SUBGRADE PAVED AREAS PROVIDED IT IS REVIEWED IN THE FIELD AT THE TIME OF CONSTRUCTION PATERSON PERSONNEL AND SUBSEQUENTLY PROOF-ROLLER BY A SUITABLY-SIZED SHE ROLLER. PROOF-ROLLING SHOULD BE COMPLETED UNDER DRY AND ABOVE-FREEZING C AND UNDER THE SUPERVISION OF PATERSON PERSONNEL PRIOR TO THE PLACEMENT C GRANUL ARS
8. THE SITE BENCHMARK IS CURRENTLY SET ON TOP OF THE FIRE HYDRANT SPINDLE (ELEV. = 109.12), LOCATED AT THE INTERSECTIN OF CULDAFF ROAD AND BERMONDSEY WAY. BENCHMARK #2 IS THE TOP OF HYDRANT SPINDEL (ELEV = 109.29), LOCATED ON DERREEN AVENUE ACCROSS THE ROAD FROM THE PROJECTION OF THE EAST PROPERTYLINE. ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD-1928:1978 GEODETIC DATUM. REFER TO THE FARLEY, SMITH & DENIS SURVEYING LTD. 2024 TOPOGRAPHIC	 IF SOFT SPOTS DEVELOP IN THE SUBGRADE DURING COMPACTION OR DUE TO CONSTRU TRAFFIC, THE AFFECTED AREAS SHOULD BE EXCAVATED AND REPLACED WITH OPSS GF TYPE II MATERIAL. AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
 SKETCH OF # 425 CULDAFF ROAD, CITY OF OTTAWA. REFER TO GEOTECHNICAL REPORT (No. PG7040-1, DATED MAY 21, 2024), PREPARED BY PATERSON GROUP FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL. 	5. FILL USED FOR GRADING BENEATH THE BASE AND SUBBASE LAYERS OF PAVED AREAS S CONSIST, UNLESS OTHERWISE SPECIFIED, OF CLEAN IMPORTED GRANULAR FILL, SUCH GRANULAR A, GRANULAR B TYPE II OR SELECT SUBGRADE MATERIAL. THIS MATERIAL S TESTED AND APPROVED PRIOR TO DELIVERY TO THE SITE. THE FILL SHOULD BE PLACE GREATER THAN 300 mm THICK AND COMPACTED USING SUITABLE COMPACTION EQUIPM
 REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARDSURFACE AREAS AND DIMENSIONS. REFER TO SERVICING AND STORMWATER MANAGEMENT REPORT PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD, (DATED OCTOBER 17, 2024). 	 THE LIFT THICKNESS. FILL PLACED BENEATH THE PAVED AREAS SHOULD BE COMPACTE LEAST 95% OF ITS SPMDD. 6. THE PAVEMENT GRANULAR BASE AND SUBBASE SHOULD BE PLACED IN MAXIMUM 300 M LIETS AND COMPACTED TO A MINIMUM OF 100% OF THE SEMDD WITH SUITABLE VIERATO.
12. SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).	LIFTS AND COMPACTED TO A MINIMUM OF 100% OF THE SPMDD WITH SUITABLE VIBRATC EQUIPMENT. 7. MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
13. PROVIDE LINE/PARKING PAINTING.14. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVICING AS-BUILT INFORMATION	8. MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED.
SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, T/WM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.	9. ALL GRADES BY CURBS ARE EDGE OF PAVEMENT GRADES UNLESS OTHERWISE INDICAT
15. CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.	 ALL CORDS SHALL BE BARKLER CORD (130HIII) ONELSS OFFICKWISE NOTED. BACKFILL MATERIAL BELOW SIDEWALK AND WALKWAY SUBGRADE AREAS OR OTHER SE SENSITIVE STRUCTURES WHICH ARE NOT ADJACENT TO THE BUILDINGS SHOULD CONSI FREE-DRAINING, NON-FROST SUSCEPTIBLE MATERIAL. THIS MATERIAL SHOULD BE PLACE MAXIMUM 200 MM TURCH LOSSE LIFTS AND COMPACTED TO AT LEAST 98% OF LIFS SPADE
1. SPECIFICATIONS: <u>ITEM</u> <u>SPEC. No.</u> <u>REFERENCE</u> CATCHBASIN (600x600mm) 705.010 OPSD	AND ABOVE FREEZING CONDITIONS.
STORM / SANITARY MANHOLE (1200Ø)701.010OPSDSTORM / SANITARY MANHOLE (1500Ø)701.011OPSDCB, FRAME & COVER400.020OPSDSTORM / SANITARY MH FRAMES25CITY OF OTTAWASANITARY COVERS24CITY OF OTTAWA	 REFER TO LANDSCAPE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GRADING PLAN INDICATING AS-BI ELEVATIONS OF ALL DESIGN GRADES SHOWN ON THIS PLAN.
STORM COVER (CLOSED)S24.1CITY OF OTTAWASTORM COVER (OPEN)S28.1CITY OF OTTAWASEWER TRENCHS6 & S7CITY OF OTTAWASTORM SEWERPVC DR 35CITY OF OTTAWA	PAVEMENT STRUCTURE:
SANITARY SEWER PVC DR 35 CATCHBASIN LEAD PVC DR 35	CAR ONLY PARKING AREAS 50mm HL3 OR SUPERPAVE 12.5 150mm OPSS GRAN "A" CRUSHED STONE
INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 2.0m COVER WITH 50mmX1200mm HI-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION (REFER TO DETAIL).	 300mm OPSS GRAN "B" TYPE II (SUBGRADE - EITHER IN SITU SOIL, FILL OR OPSS GRANULAR B TYPE I OR II MATERIAL PLACED OVER IN SITU SOIL.)
 SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BOILDING AT A MINIMUM SLOPE OF 1.0% (2.0% IS PREFERRED). SEWER SERVICE CONNECTIONS PER CITY OF OTTAWA DETAILS S11 AND S11.1. 	HEAVY-TRUCK TRAFFIC AND LOADING AREAS 40mm HL3 OR SUPERPAVE 12.5 50mm HL8 OR SUPERPAVE 19.0
4. THE PIPE BEDDING FOR THE SEWER AND WATER PIPES SHOULD CONSIST OF AT LEAST 150 MM OF OPSS GRANULAR A. THE BEDDING LAYER THICKNESS SHOULD BE INCREASED TO A MINIMUM OF 300 MM WHERE THE SUBGRADE WILL CONSIST OF GREY SILTY CLAY. THE MATERIAL SHOULD BE PLACED IN A MAXIMUM 225 MM THICK LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 99% OF ITS SPMDD. THE BEDDING MATERIAL SHOULD EXTEND AT LEAST TO THE SPRING LINE OF THE PIPE.	 Solution ALS OK SUPERFAVE 19.0 150mm OPSS GRAN "A" CRUSHED STONE 450mm OPSS GRAN "B" TYPE II (SUBGRADE - EITHER IN SITU SOIL, FILL OR OPSS GRANULAR B TYPE I OR II MATERIAL PLACED OVER IN SITU SOIL.)
 THE COVER MATERIAL, WHICH SHOULD CONSIST OF OPSS GRANULAR A, SHOULD EXTEND FROM THE SPRING LINE OF THE PIPE TO AT LEAST 300 MM ABOVE THE OBVERT OF THE PIPE. THE MATERIAL SHOULD BE PLACED IN MAXIMUM 225 MM THICK LIFTS AND COMPACTED TO A MINIMUM OF 99% OF ITS SEMIDID. 	NOTE: • MINIMUM PERFORMANCE GRADED (PG) 58-34 ASPHALT CEMENT
 WHERE HARD SURFACE AREAS ARE CONSIDERED ABOVE THE TRENCH BACKFILL, THE TRENCH BACKFILL MATERIAL WITHIN THE FROST ZONE (ABOUT 1.8 M BELOW FINISHED GRADE) SHOULD MATCH THE SOILS EXPOSED AT THE TRENCH WALLS TO MINIMIZE 	
DIFFERENTIAL FROST HEAVING. THE TRENCH BACKFILL SHOULD BE PLACED IN MAXIMUM 300 MM THICK LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 95% OF THE MATERIAL'S SPMDD.	
 THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL 	8 90° UNLESS SPECIFIE
SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16, 410.07.16.04 AND 407.07.24. DYE TESTING IS TO BE COMPLETED ON ALL SANITARY SERVICES TO CONFIRM PROPER CONNECTION TO THE SANITARY SEWER MAIN. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.	
 STORM MANHOLES AND CBMHS ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED. CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS, 200mmØ OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES. 	
11. ALL CATCHBASINS AND CATCHBASIN MANHOLES TO BE PROVIDED WITH MINIMUM 3 METER LONG PERFORATED SUBDRAINS EXTENDING IN TWO DIRECTIONS AT THE SUBGRADE LEVEL. SUBDRAIN IS TO BE PROVIDED AT THE TRANSITIONS BETWEEN DIFFERENT PAVEMENT COMPOSITIONS. THE SUBGRADE SURFACE SHOULD BE SHAPED TO PROMOTE WATER FLOW TO THE DRAINAGE LINES.	
	150 CONC GUTTER SEE NOTE #6
WATERMAIN NOTES:	CONCRETE ROAD CROSSFALL FRAME & COVER ASPHA
1. SPECIFICATIONS: ITEM SPEC. №. WATERMAIN TRENCHING W17 CITY OF OTTAWA THERMAL INSULATION IN SHALLOW TRENCHES W22 WATERMAIN CROSSING BELOW SEWER/ABOVE SEWER W25 / W25,2 CITY OF OTTAWA WATERMAIN	CONCRETE SUPPORT SEE NOTE #3 SEE NOTE #1
 VALVE AND VALVE BOX W24 CITY OF OTTAWA SUPPLY AND CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMAINS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE 	CATCH BASIN ICD NOT SHOWN FOR CLARITY.
 PERFORMED BY CITY OFFICIALS. 3. WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED. ANY WATERMAIN WITH LESS THAN 2.4m COVER TO BE INSULATED PER THE SHOWN DETAIL. 	
 PROVIDE MINIMUM 0.25m ABOVE, 0.5m IF BELOW, CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS PER CITY OF OTTAWA STANDARDS W25/W25.2 	BACKFILL WITH GRANULAR A MINIMUM THICKNESS 300mm ABOLIND ALL
 WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED. 	SIDES OF THE STRUCTURE AND COMPACT TO OPSS 501
 CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS CITY OF OTTAWA STANDARD DETAILS W-39, 40, 41, 42, 43 AND 44. PROVIDE THERMAL INSULATION FOR WATERMAIN AT OPEN STRUCTURES PER CITY OF OTTAWA STANDARD DETAIL W-23. 	NOTES: 1. BOTTOM EDGE OF FRAME TO BE TIGHT TO FACE OF CURB. 2. FOR ADJUSTMENT DETAIL OPTIONS, SEE F-4080.
8. IF WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.	 A CONCRETE SUPPORT IS REQUIRED WHEN BUILT ADJACENT TO THE SIDEWALK. DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE. CONNECTION OF LEAD TO C.B. WITH AN APPROVED CAST-IN-PLACE OR BOOT GASKET. FACE OF SIDEWALK OR CURB IS TO BE PLACED AT A TOLERANCE OF +/- 25mm TO DIMENSIONS SHOWN. OTHERWISE CONTRACTOR WILL RE-INSTALL AT HIS EXPENSE.
	INSTALLATION OF CATCH BASIN
	WITH CURB AND GUTTER
<u>)TE:</u> 1E POSITION OF ALL POLE LINES, CONDUITS,	
ATERMAINS, SEWERS AND OTHER	
RUCTURES IS NOT NECESSARILY SHOWN ON	
TRUCTURES IS NOT NECESSARILY SHOWN ON TE CONTRACT DRAWINGS, AND WHERE SHOWN, TE ACCURACY OF THE POSITION OF SUCH	

UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR

DAMAGE TO THEM.

HOSE CONTAINING SIGNIFICANT AMOUNTS OF ORGANIC OR OULD BE STRIPPED FROM UNDER ANY BUILDINGS, PAVED AREAS, PIPE MENT SENSITIVE STRUCTURES. AS DIRECTED BY THE SITE ENGINEER

E PLACED AS GENERAL LANDSCAPING FILL WHERE SETTLEMENT IS A UND SURFACE. THESE MATERIALS SHOULD BE SPREAD IN THIN LIFTS THE TRACKS OF THE SPREADING EQUIPMENT TO MINIMIZE VOIDS. IF PLACED TO INCREASE THE SUBGRADE LEVEL FOR AREAS TO BE COMPACTED IN MAXIMUM 300 mm THICK LIFTS AND TO A MINIMUM PECTIVE SPMDD

IN FOR LEAVING IN-SITU FILL IN PLACE AT THE SUBGRADE LEVEL OF S REVIEWED IN THE FIELD AT THE TIME OF CONSTRUCTION BY SUBSEQUENTLY PROOF-ROLLER BY A SUITABLY-SIZED SHEEPSFOOT DULD BE COMPLETED UNDER DRY AND ABOVE-FREEZING CONDITIONS OF PATERSON PERSONNEL PRIOR TO THE PLACEMENT OF

HE SUBGRADE DURING COMPACTION OR DUE TO CONSTRUCTION AS SHOULD BE EXCAVATED AND REPLACED WITH OPSS GRANULAR B MENDED BY THE GEOTECHNICAL ENGINEER.

EATH THE BASE AND SUBBASE LAYERS OF PAVED AREAS SHOULD SPECIFIED, OF CLEAN IMPORTED GRANULAR FILL, SUCH AS OPSS (PE II OR SELECT SUBGRADE MATERIAL. THIS MATERIAL SHOULD BE R TO DELIVERY TO THE SITE. THE FILL SHOULD BE PLACED IN LIFTS NO AND COMPACTED USING SUITABLE COMPACTION EQUIPMENT FOR ACED BENEATH THE PAVED AREAS SHOULD BE COMPACTED TO AT

ASE AND SUBBASE SHOULD BE PLACED IN MAXIMUM 300 MM THICK MINIMUM OF 100% OF THE SPMDD WITH SUITABLE VIBRATORY

DEWALK AND WALKWAY SUBGRADE AREAS OR OTHER SETTLEMENT CH ARE NOT ADJACENT TO THE BUILDINGS SHOULD CONSIST OF SUSCEPTIBLE MATERIAL. THIS MATERIAL SHOULD BE PLACED IN

SE LIFTS AND COMPACTED TO AT LEAST 98% OF ITS SPMDD UNDER DRY

SEWER & WATERMAIN INSULATION NOTES:

- 1. INSULATE ALL SEWER PIPES THAT HAVE LESS THAN 2.0m COVER AND ALL WATERMAIN WITH LESS THAN 2.4m OF COVER WITH EXPANDED
- POLYSTYRENE INSULATION AS PER OPSD 1109.030. 2. THE THICKNESS OF INSULATION SHALL BE THE EQUIVALENT OF 25mm FOR EVERY 300mm
- REDUCTION IN THE REQUIRED DEPTH OF COVER WITH 50mm MINIMUM (SEE TABLE) T = THICKNESS OF INSULATION (mm) W = WIDTH OF INSULATION (mm)
- W = D + 300 (1000 min.) D = O.D OF PIPE (mm)



SURFACE







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OCT/17/24

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