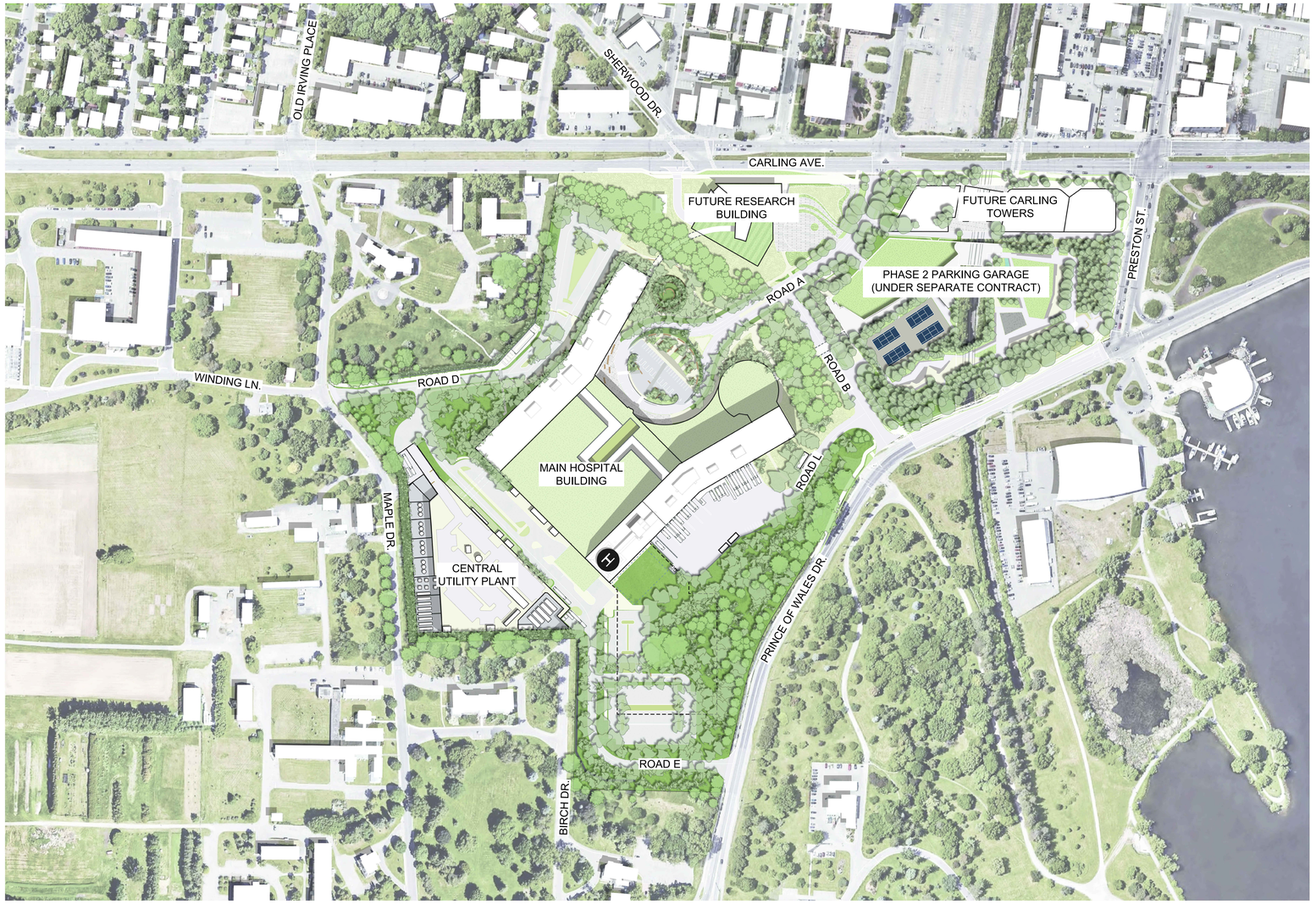
THE OTTAWA HOSPITAL



SHEET NUMBER	SHEET NAME
C100	ILLUSTRATIVE SITE PLAN / INDEX OF DRAWINGS
C101	STAGE 3: HOSPITAL EROSION AND SEDIMENT CONTROL PLAN
C102	STAGE 3: HOSPITAL REMOVALS
C103	STAGE 3: HOSPITAL SITE SERVICING PLAN 1 0F 6
C104	STAGE 3: HOSPITAL SITE SERVICING PLAN 2 0F 6
C105	STAGE 3: HOSPITAL SITE SERVICING PLAN 3 0F 6
C106	STAGE 3: HOSPITAL SITE SERVICING PLAN 4 0F 6
C107	STAGE 3: HOSPITAL SITE SERVICING PLAN 5 0F 6
C108	STAGE 3: HOSPITAL SITE SERVICING PLAN 6 0F 6
C109	STAGE 3: HOSPITAL EXISTING GRADING PLAN
C110	STAGE 3: HOSPITAL GRADING PLAN 1 OF 6
C111	STAGE 3: HOSPITAL GRADING PLAN 2 OF 6
C112	STAGE 3: HOSPITAL GRADING PLAN 3 OF 6
C113	STAGE 3: HOSPITAL GRADING PLAN 4 OF 6
C114	STAGE 3: HOSPITAL GRADING PLAN 5 OF 6
C115	STAGE 3: HOSPITAL GRADING PLAN 6 OF 6
C116	STAGE 3: HOSPITAL DETAILS 1
C117	STAGE 3: HOSPITAL DETAILS 2
C118	STAGE 3: HOSPITAL DETAILS 3
C119	STAGE 3: HOSPITAL DETAILS SERVICING TABLES

THESE DRAWINGS ARE FOR INFORMATION PURPOSES ONLY AND ARE NOT INTENDED TO BE USED AS A BASIS FOR CONSTRUCTION. ANY USE OR MODIFICATION OF THESE DRAWINGS IS ENTIRELY AT THE USER'S OWN RISK. PLEASE REFER TO THE CONSTRUCTION-ISSUE DRAWINGS BEARING A PROFESSIONAL ENGINEER'S STAMP FOR DEFINITIVE INFORMATION.

CITY OF OTTAWA FILE # D07-12-22-0168
CITY PLAN # 18891

HDR Architecture Associates Inc.
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PARSONS

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

The Ottawa Hospital | L'Hôpital d'Ottawa

Architect	HDR
Landscape Architect	HDR
Civil Engineer	Parsons
Structural Engineer	EXP
Mechanical Engineer	Smith + Andersen
Electrical Engineer	Smith + Andersen
Plumbing Engineer	Smith + Andersen
Interior Designer	HDR
Equipment Planner	Colliers
Wayfinding	
Sheet Reviewer	Author

MARK	DATE	DESCRIPTION
01	2023-10-27	ISSUED FOR MCH 3A.3
02	2024-01-17	ISSUED FOR DELEGATED AUTHORITY REPORT

Project Number	10333582
Original Issue	02/21/23

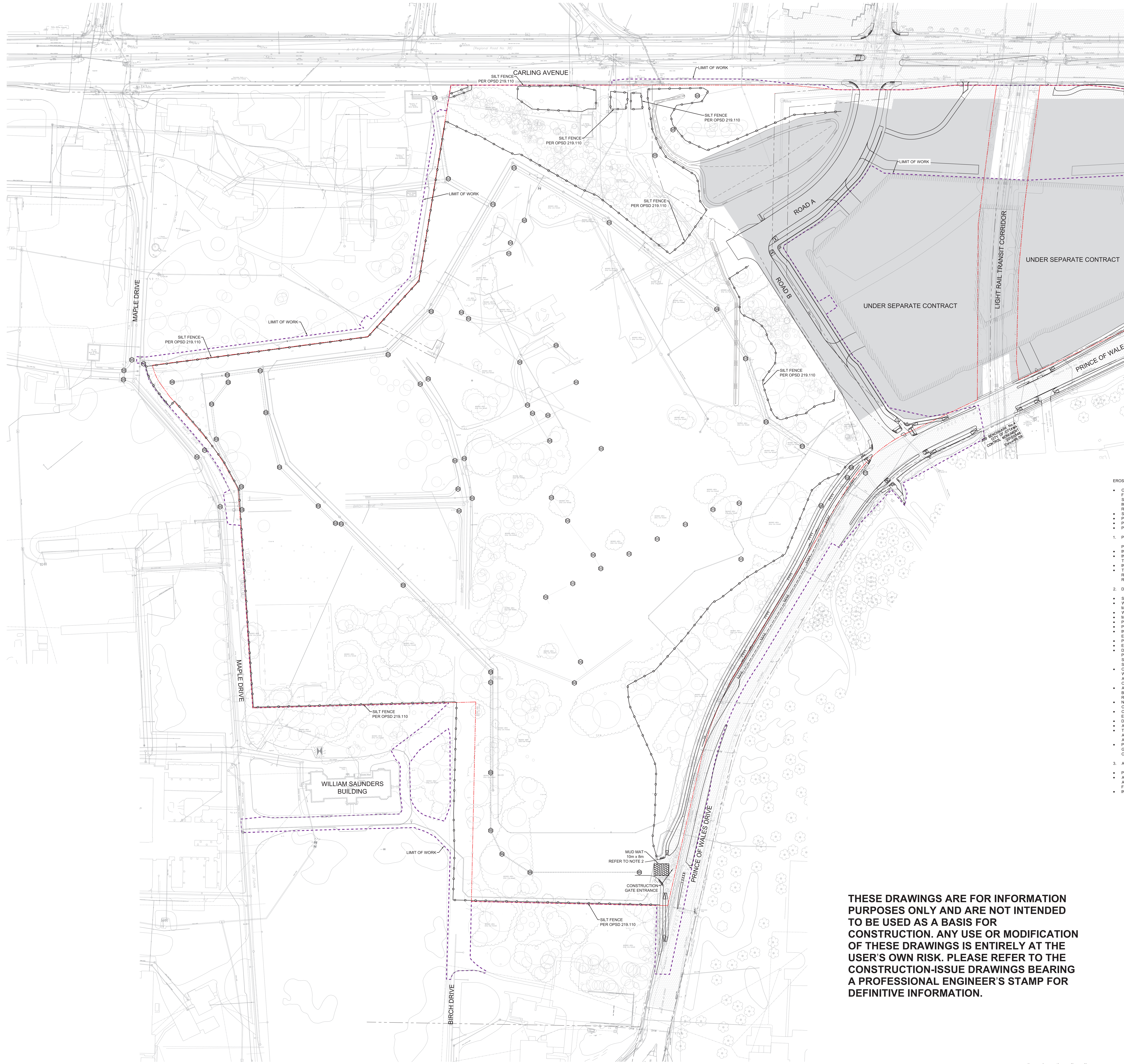
PRELIMINARY
NOT FOR CONSTRUCTION

Sheet Name
CIVIL INDEX OF DRAWINGS

Sheet Number
C100

Project Status
STAGE 3

D07-12-22-0168



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APPROVED
By Lily Xu at 10:34 am, May 21, 2024

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT, AND BUILDING SERVICES DEPARTMENT, CITY OF OTTAWA

LICENSED PROFESSIONAL ENGINEER
S.D. MITCHELSON
100128064
01/17/2024
PROVINCE OF ONTARIO

LEGEND:

- FACILITY LEASE BOUNDARY
- EXISTING PROPERTY LINE
- LIMIT OF WORK
- UNDER SEPARATE CONTRACT
- PROPOSED OFFSITE ROADWAY WORKS TO BE REVIEWED AND APPROVED THROUGH RMA PROCESS UNDER SEPARATE DRAWING PACKAGE
- BELL — EXISTING BELL
- GAS — EXISTING GAS
- 000mm HYDRO — EXISTING HYDRO
- STREET LIGHTING — EXISTING STREETLIGHT
- TELUS — EXISTING TELUS
- TRAFFIC — EXISTING TRAFFIC
- EXISTING STORM SEWER AND MANHOLE
- EXISTING SANITARY SEWER AND MANHOLE
- 000mm WATERMAIN — EXISTING WATER
- TREE PRESERVATION FENCE (BY OTHER)
- CONSTRUCTION FENCE
- SILT FENCE
- SS — SILT SACK
- FF — FILTER FABRIC
- STRAW BALE CHECK DAM
- ROCK FLOW CHECK DAM
- CONTRACTOR PARKING + CONSTRUCTION STAGING AND LAYDOWN AREA
- CONSTRUCTION STAGING AND LAYDOWN AREA
- LIGHT VEHICLE / WORKER ACCESS ROAD
- EXISTING TREE AND CRITICAL ROOT ZONE
- WOODED AREA DRIPLINE
- EXISTING TUNNEL

EROSION AND SEDIMENT CONTROL MEASURES:

- CONTRACTOR IS RESPONSIBLE FOR ALL INSTALLATION, MONITORING, REPAIR AND REMOVAL OF ALL EROSION AND SEDIMENT CONTROL FEATURES. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURE MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
- SEDIMENT AND EROSION CONTROL PLAN OBJECTIVES:
- PREVENT SOIL EROSION. THIS CAN RESULT FROM STREAMING RAIN WATER OR WIND EROSION DURING CONSTRUCTION,
- PREVENT SEDIMENT DEPOSITS IN THE SEWER PIPES AND NEARBY COLLECTING STREAMS (AS APPLICABLE),
- PREVENT AIR POLLUTION FROM PARTICULATE MATTER AND DUST.

1. PRIOR TO START OF CONSTRUCTION:

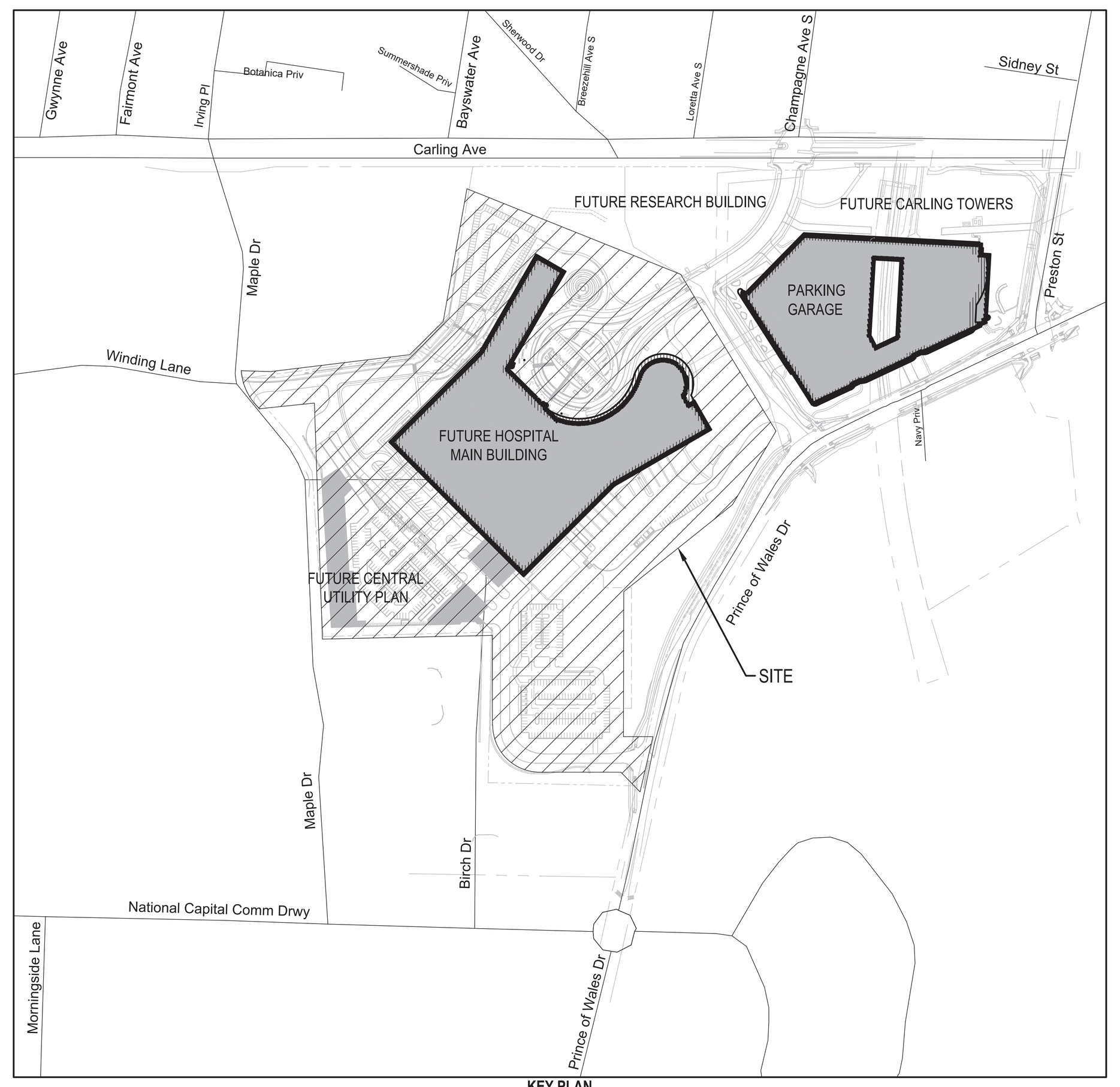
PRIOR TO THE REMOVAL OF ANY VEGETATIVE COVER, MOVING OF SOIL AND CONSTRUCTION:
- INSTALL FILTER CLOTH ON ALL EXISTING AND PROPOSED STORM MAINTENANCE HOLES THAT WILL RECEIVE RUNOFF FROM THE SITE.
- INSTALL SILTSACK FILTERS (DETAIL D1) IN ALL EXISTING AND PROPOSED CATCH BASINS STRUCTURES THAT WILL RECEIVE RUNOFF FROM THE SITE.
- INSPECT MEASURES IMMEDIATELY AFTER INSTALLATION.
- THE CONTRACTOR MUST SET UP THE MEASURES INDICATED ON THE PLAN, INSPECT THEM FREQUENTLY AND CLEAN AND REPAIR OR REPLACE THE DETERIORATED STRUCTURES. AT THE END OF THE CONSTRUCTION PERIOD, THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF THE TEMPORARY STRUCTURES AND RECONDITIONING THE AFFECTED AREAS

2. DURING CONSTRUCTION:

- SEDIMENT AND EROSION CONTROL MEASURES TO BE CONSTRUCTED AS PER OPSS 805.
- WHEN SEDIMENT AND EROSION CONTROL MEASURES MUST BE REMOVED TO COMPLETE A PORTION OF THE WORK, THE SAME MEASURES MUST BE REINSTATED UPON THE WORK'S COMPLETION.
- WORK TO BE DONE IN THE VICINITY OF MAJOR WATERWAYS TO BE CARRIED OUT FROM JULY AND SEPTEMBER ONLY.
- MINIMIZE THE EXTENT OF DISTURBED AREAS AND THE DURATION OF EXPOSURE.
- PROTECT DISTURBED AREAS FROM RUNOFF.
- PROVIDE TEMPORARY COVER SUCH AS SEEDING OR MULCHING IF DISTURBED AREA WILL NOT BE REHABILITATED SHORTLY.
- INSPECT STRAW BALE FLOW CHECK DAMS, SILT FENCES, SILT SACKS, COIR MATS, AND CATCH BASIN SUMPS REGULARLY AND AFTER EVERY MAJOR STORM EVENT. CLEAN AND REPAIR WHEN NECESSARY.
- PLAN TO BE REVIEWED AND REVISED AS REQUIRED DURING CONSTRUCTION.
- EROSION CONTROL FENCING TO BE ALSO INSTALLED AROUND THE BASE OF ALL STOCKPILES.
- DO NOT LOCATE TOPSOIL PILES AND EXCAVATION MATERIAL CLOSER THAN 2.5m FROM ANY PAVED SURFACE, OR ONE WHICH IS TO BE PAVED BEFORE THE PILE IS REMOVED. ALL TOPSOIL PILES ARE TO BE SEEDED IF THEY ARE TO REMAIN ON SITE LONG ENOUGH FOR SEEDS TO GROW (LONGER THAN 30 DAYS). WHEN STORING SOIL ON SITE IN PILES THE CONTRACTOR MUST COVER EACH PILE WITH TARPS, STRAW OR A GEOTEXTILE FABRIC TO AVOID FINE PARTICLE TRANSPORT BY WIND AND/OR STREAMING RAIN WATER.
- CONTROL WIND-BLOWN DUST OFF SITE TO ACCEPTABLE LEVELS BY SEEDING TOPSOIL PILES AND OTHER AREAS TEMPORARILY (PROVIDE WATERING AS REQUIRED). FOR DUST CONTROL, CONTRACTOR TO APPLY CALCIUM CHLORIDE (TYPE I – OPSS 2501 AND CAN/CGSB-15-1) AND WATER WITH EQUIPMENT APPROVED BY THE OWNER'S REPRESENTATIVE AT RATE IN ACCORDANCE TO OPSS 506 WHEN DIRECTED BY OWNER'S REPRESENTATIVE.
- ALL EROSION CONTROL STRUCTURE TO REMAIN IN PLACE UNTIL ALL DISTURBED GROUND SURFACES HAVE BEEN DESTABILIZED EITHER BY PAVING OR RESTORATION OF VEGETATIVE GROUND COVER. SEDIMENT CAPTURE SILT SACKS MUST BE MAINTAINED AND CANNOT BE REMOVED UNTIL ALL LANDSCAPING AREAS ARE COMPLETED.
- NO ALTERNATE METHODS OF EROSION PROTECTION SHALL BE PERMITTED UNLESS APPROVES BY THIS CONSULTING ENGINEER AND THE CITY OF OTTAWA DEPARTMENT OF PUBLIC WORKS.
- CONTRACTOR RESPONSIBLE FOR MUNICIPAL ROADWAY AND SIDEWALK TO BE CLEANED OF ALL SEDIMENT FROM VEHICULAR TRACKING ETC. AT THE END OF EACH WORK DAY.
- DURING WET CONDITIONS, TIRES OF ALL VEHICLES/EQUIPMENT LEAVING THE SITE ARE TO BE SCRAPED.
- ANY MUD/MATERIAL TRACKED ONTO THE ROAD SHALL BE REMOVED IMMEDIATELY BY HAND OR RUBBER TIRE LOADER.
- TAKE ALL NECESSARY STEPS TO PREVENT BUILDING MATERIAL, CONSTRUCTION DEBRIS OR WASTE BEING SPILLED OR TRACKED ONTO ABUTTING PROPERTIES OR PUBLIC STREETS DURING CONSTRUCTION AND PROCEED IMMEDIATELY TO CLEAN UP ANY AREAS SO AFFECTED.
- PROVIDE GRAVEL ENTRANCE (MUD MAT) WHEREVER EQUIPMENT LEAVES THE SITE TO PROVIDE MUD TRACKING ONTO PAVED SURFACES. GRAVEL BED SHALL BE A MINIMUM OF 0.15m DEEP AND SHALL CONSIST OF COARSE MATERIAL. MAINTAIN GRAVEL ENTRANCE IN CLEAN CONDITION.

3. AFTER CONSTRUCTION:

- PROVIDE PERMANENT COVER CONSISTING OF TOPSOIL AND SEED TO DISTURBED AREAS.
- ALL SEDIMENT AND EROSION CONTROL MEASURES TO BE REMOVED BY THE CONTRACTOR FOLLOWING THE COMPLETION OF WORK AND AFTER DISTURBED AREAS HAVE BEEN REHABILITATED AND STABILIZED, THIS INCLUDES REMOVE STRAW BALE FLOW CHECK DAMS, SILT FENCES AND FILTER CLOTHS ON CATCH BASINS AND MANHOLE COVERS.
- INSPECT AND CLEAN CATCH BASIN SUMPS AND STORM SEWERS.



KEY PLAN

HDR

HDR Architecture Associates Inc.
300 Richmond Road, Suite 200
Ottawa, Ontario K1Z 6X6

PARSONS

The Ottawa Hospital | L'Hôpital d'Ottawa

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

Architect	HDR
Landscape Architect	HDR
Civil Engineer	Parsons
Structural Engineer	EXP
Mechanical Engineer	Smith + Andersen
Electrical Engineer	Smith + Andersen
Plumbing Engineer	Smith + Andersen
Interior Designer	HDR
Equipment Planner	Colliers
Wayfinding	
Sheet Reviewer	Author

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Project Number 10333982
Original Issue 02/21/23

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Sheet Name
STAGE 3: HOSPITAL EROSION AND SEDIMENT CONTROL PLAN

Sheet Number
C101

Project Status
STAGE 3

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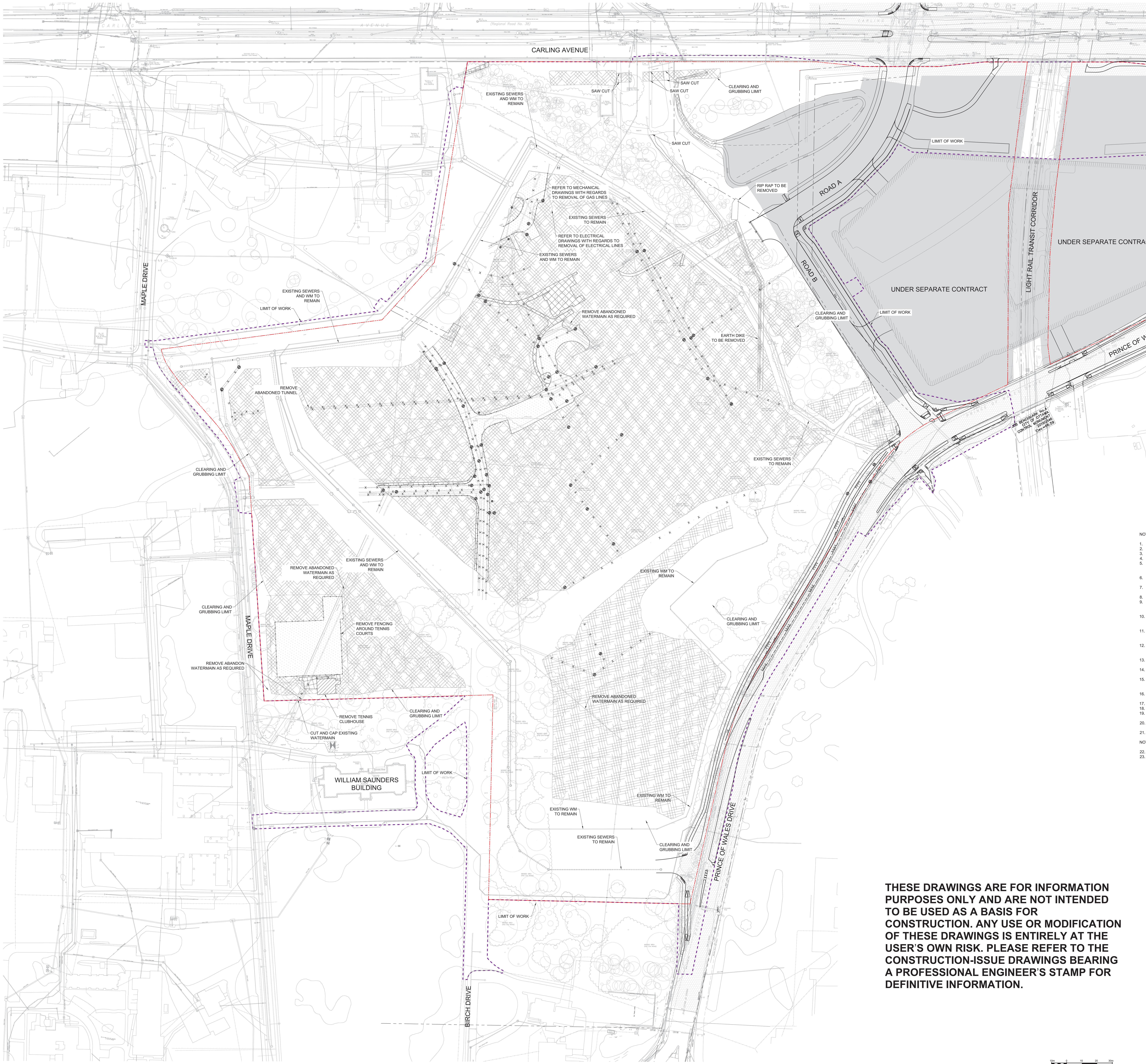

APPROVED
By Lily Xu at 10:37 am, May 21, 2024

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT, AND BUILDING SERVICES DEPARTMENT, CITY OF OTTAWA

NOTES: GENERAL

1. CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.
2. ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
3. JOB BENCH MARK - REFER TO SURVEY BY AOV LTD. CONFIRM WITH CONTRACT ADMINISTRATOR PRIOR TO UTILIZATION OF BENCH MARK.
4. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
5. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT. PAVEMENT REINSTATEMENT SHALL BE WITH STEP JOINTS OF 500mm WIDTH MINIMUM IN ACCORDANCE WITH CITY OF OTTAWA STANDARD R10.
6. RESTORE PAVEMENT STRUCTURE AND SURFACES ON EXISTING ROADS TO A CONDITION AT LEAST EQUAL TO ORIGINAL AND TO THE SATISFACTION OF THE MUNICIPAL AUTHORITIES.
7. OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE MUNICIPAL AUTHORITIES PRIOR TO COMMENCING CONSTRUCTION.
8. MINIMIZE DISTURBANCE TO EXISTING VEGETATION DURING THE EXECUTION OF ALL WORKS.
9. FILTER FABRIC TO BE INSTALLED AND MAINTAINED BETWEEN THE FRAME AND COVER OF ALL CATCHBASINS AND CATCHBASIN MANHOLES DURING THE CONSTRUCTION PERIOD TO MINIMIZE SEDIMENTS ENTERING THE STORM SEWER SYSTEM. ALL GRASSED AREAS MUST BE COMPLETED PRIOR TO THE REMOVAL OF THE FILTER FABRIC IN THE CATCH BASINS.
10. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE DIRECTED FROM THE ENGINEER. EXCAVATE AND REMOVE ALL ORGANIC MATERIAL AND DEBRIS LOCATED WITHIN THE PROPOSED BUILDING, PARKING AND ROADWAY LOCATIONS. STOCKPILE AND TEST MATERIAL PRIOR TO OFFSITE REMOVAL. ANY CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
11. THE APPROVAL OF THIS PLAN DOES NOT EXEMPT THE CONTRACTOR FROM THE REQUIREMENTS TO OBTAIN THE VARIOUS PERMITS/APPROVALS REQUIRED TO COMPLETE A CONSTRUCTION PROJECT, SUCH AS BUT NOT LIMITED TO; ROAD CUT PERMITS, SEWER PERMITS, WATER PERMIT, ETC.
12. AT PROPOSED UTILITY CONNECTION POINTS AND CROSSINGS (I.E. STORM SEWER, SANITARY SEWER, WATER, ETC.) THE CONTRACTOR SHALL DETERMINE THE PRECISE LOCATION AND DEPTH AND SIZE OF EXISTING UTILITIES AND REPORT ANY DISCREPANCIES OR CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES.
13. REFER TO GEOTECHNICAL REPORT FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS.
14. REFER TO ARCHITECT AND LANDSCAPE ARCHITECTS DRAWINGS FOR BUILDING, LANDSCAPE, AND HARD SURFACE AREAS AND DIMENSIONS.
15. EXISTING SERVICES AND UTILITIES SHOWN ON THESE DRAWINGS ARE TAKEN FROM THE BEST AVAILABLE RECORDS, BUT ARE NOT COMPLETE. CONTRACTOR IS ADVISED TO CHECK IN FIELD FOR LOCATION AND ELEVATION OF PIPES AND CHECK WITH THE UTILITY COMPANIES BEFORE DIGGING.
16. CONTRACTOR ITO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.
17. CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS AS DEEMED NECESSARY.
18. THE EXISTING UNDERGROUND INFRASTRUCTURE NEEDS TO BE REMOVED AND NOT ABANDONED IN PLACE.
19. EXISTING UNDERGROUND INFRASTRUCTURE CAN'T BE REMOVED UNTIL ALL REQUIRED OFF SITE SERVICES RELOCATIONS ARE COMPLETE AND IN OPERATION.
20. UNLESS THE REVISION TITLE IS "ISSUED FOR CONSTRUCTION", THIS DRAWING SHALL BE CONSIDERED PRELIMINARY AND SHALL NOT BE USED AS A CONSTRUCTION DOCUMENT.
21. CONTRACTOR SHALL PROTECT EXISTING SURVEY BENCHMARKS AND ENVIRONMENTAL PROCEDURES/STUDIES.

NOTES : TREES

22. REFER TO LANDSCAPE DRAWINGS FOR TREE REMOVAL AND PRESERVATION.
23. NO TREES TO BE REMOVED UNTIL REVIEWED AND APPROVED BY ALL REQUIRED PARTIES.

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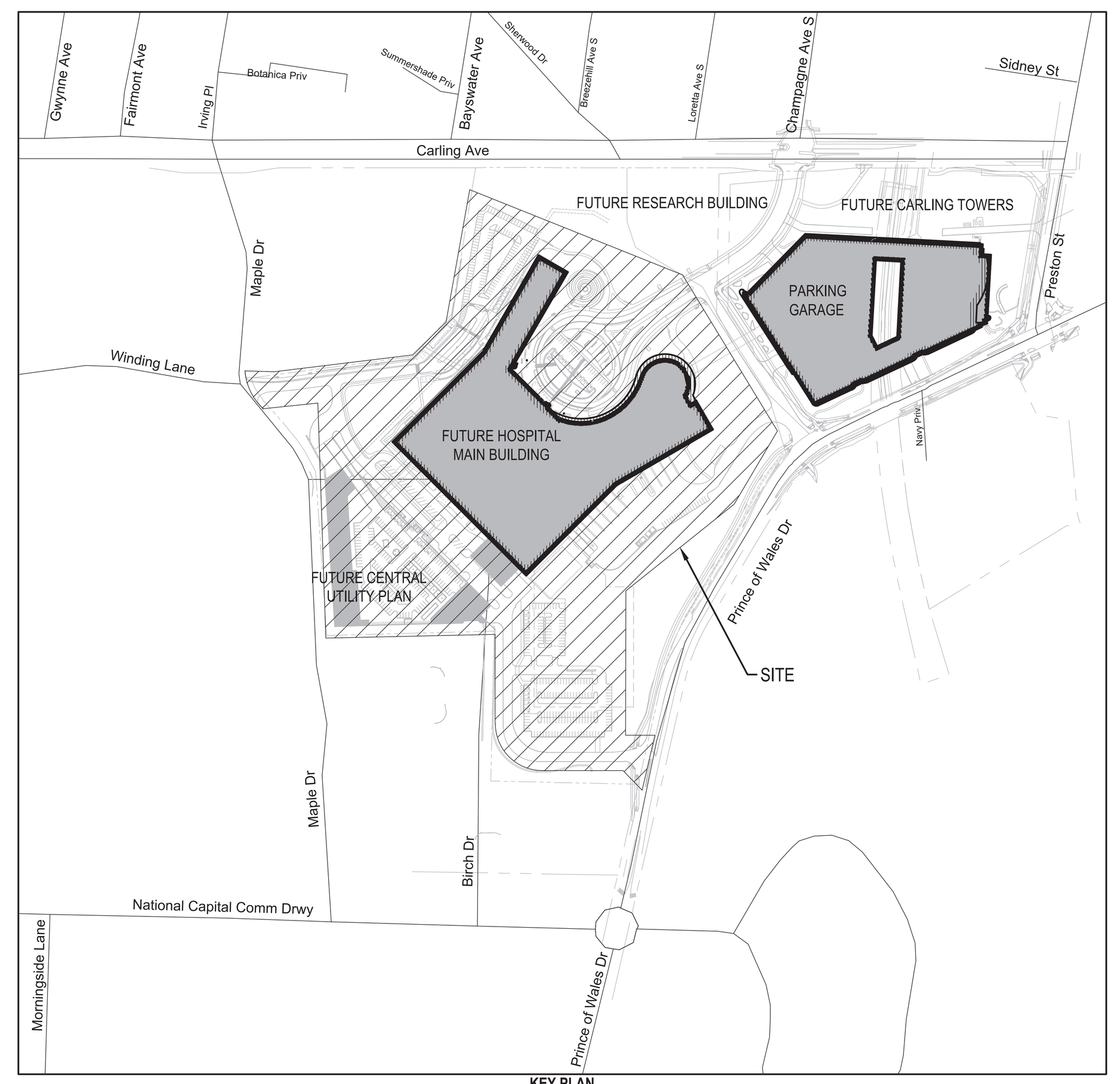

HDR

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PARSONS

LICENSED PROFESSIONAL ENGINEER
S.D.MITCHELSON
100128064
01/17/2024
PROVINCE OF ONTARIO

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

The Ottawa Hospital | L'Hôpital d'Ottawa

Architect	HDR
Landscape Architect	HDR
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11	2024-01-17	ISSUED FOR DELEGATED AUTHORITY REPORT

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Sheet Name
STAGE 3: HOSPITAL REMOVALS

Sheet Number
C102

Project Status
STAGE 3

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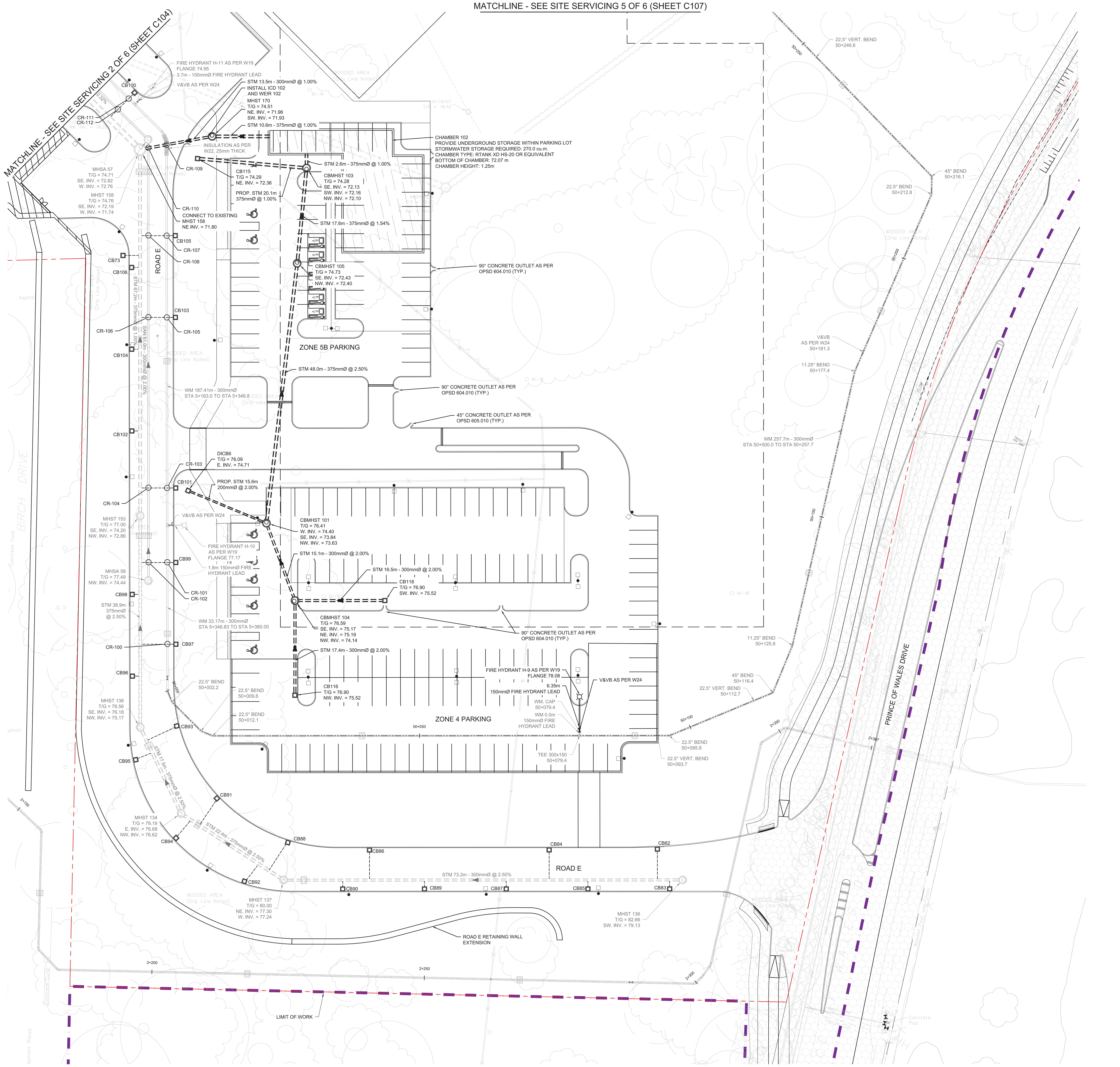

NOTES: GENERAL

1. CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.
2. ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
3. JOB BENCH MARK - REFER TO SURVEY BY AOV LTD. CONFIRM WITH CONTRACT ADMINISTRATOR PRIOR TO UTILIZATION OF BENCH MARK.
4. ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
5. STRIP AND REMOVE ALL TOPSOIL FROM IMPROVED AREAS.
6. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
7. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT. PAVEMENT REINSTATEMENT SHALL BE WITH STEP JOINTS OF 500mm WIDTH MINIMUM IN ACCORDANCE WITH D2 ON DRAWING C103.
8. CURBS TO BE CONCRETE BARRIER, CONSTRUCTED AS PER CITY OF OTTAWA DETAIL SC1.1. ELEVATIONS AT CURB INDICATE THE GRADE AT THE FINISHED ROAD SURFACE UNLESS NOTED OTHERWISE.
9. RESTORE PAVEMENT STRUCTURE AND SURFACES ON EXISTING ROADS TO A CONDITION AT LEAST EQUAL TO ORIGINAL AND TO THE SATISFACTION OF THE MUNICIPAL AUTHORITIES.
10. ALL MATERIAL SUPPLIED AND PLACED FOR PARKING LOT AND ACCESS ROAD CONSTRUCTION SHALL BE TO OPSS STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED. CONSTRUCTION TO OPSS 206, 310 & 314. MATERIALS TO OPSS 1001, 1003 & 1010.
11. ABUTTING PROPERTY GRADE TO BE MATCHED.
12. OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE MUNICIPAL AUTHORITIES PRIOR TO COMMENCING CONSTRUCTION.
13. MINIMIZE DISTURBANCE TO EXISTING VEGETATION DURING THE EXECUTION OF ALL WORKS.
14. FILTER FABRIC TO BE INSTALLED AND MAINTAINED BETWEEN THE FRAME AND COVER OF ALL CATCHBASINS AND CATCHBASIN MANHOLES DURING THE CONSTRUCTION PERIOD TO MINIMIZE SEDIMENTS ENTERING THE STORM SEWER SYSTEM. ALL GRASSED AREAS MUST BE COMPLETED PRIOR TO THE REMOVAL OF THE FILTER FABRIC IN THE CATCH BASINS.
15. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE DIRECTED FROM THE ENGINEER. EXCAVATE AND REMOVE ALL ORGANIC MATERIAL AND DEBRIS LOCATED WITHIN THE PROPOSED BUILDING, PARKING AND ROADWAY LOCATIONS. ANY CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
16. THE APPROVAL OF THIS PLAN DOES NOT EXEMPT THE CONTRACTOR FROM THE REQUIREMENTS TO OBTAIN THE VARIOUS PERMITS/APPROVALS REQUIRED TO COMPLETE A CONSTRUCTION PROJECT, SUCH AS BUT NOT LIMITED TO; ROAD CUT PERMITS, SEWER PERMITS, WATER PERMIT, ETC.
17. AT PROPOSED UTILITY CONNECTION POINTS AND CROSSINGS (I.E. STORM SEWER, SANITARY SEWER, WATER, ETC.) THE CONTRACTOR SHALL DETERMINE THE PRECISE LOCATION AND DEPTH AND SIZE OF EXISTING UTILITIES AND REPORT ANY DISCREPANCIES OR CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES.
18. REFER TO ARCHITECT AND LANDSCAPE ARCHITECTS DRAWINGS FOR BUILDING, LANDSCAPE, AND HARD SURFACE AREAS AND DIMENSIONS.
19. REFER TO GEOTECHNICAL REPORT FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS.
20. CONTRACTOR IS RESPONSIBLE TO KEEP THE ROADS FREE AND CLEAN FROM MUD OR DEBRIS.

NOTES: WATERMAIN

21. SUPPLY AND INSTALL ALL WATERMAIN AND APPURTENANCES IN ACCORDANCE WITH MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
22. ALL WATERMAIN TO BE INSTALLED AT MINIMUM COVER OF 2.4m BELOW FINISHED GRADE. WHERE REQUIRED, PROVIDE INSULATION IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS W22 AND W23. WATERMAIN INSULATION AT OPEN STRUCTURES SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W23.
23. WATERMAIN BEDDING AS PER CITY OF OTTAWA STANDARD W17.
24. CONCRETE THRUST BLOCKS AND RESTRAINING AS PER CITY OF OTTAWA STANDARD W25.3, W25.4 (TABLE 3), W25.5 AND W25.6.
25. CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS AS PER CITY OF OTTAWA STANDARD W40 AND W42.
26. IF WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.
27. EXCAVATION, INSTALLATION, AND BACKFILL BY CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN BY CITY.
28. HYDRANT INSTALLATION SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W19.
29. WATERMAIN AND SEWER CORSSINGS TO BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS W25 AND W25.2.

NOTES: SEWER

30. SUPPLY AND INSTALL ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
31. SEWER BEDDING AS PER CITY OF OTTAWA STANDARD S6 FOR SINGLE TRENCH AND CITY OF OTTAWA STANDARD S7 FOR COMBINED TRENCH.
32. ALL WORK SHALL BE PERFORMED, AS APPLICABLE IN ACCORDANCE WITH OPSS 407 AND 410.
33. CONTRACTOR TO CONFIRM ELEVATION OF EXISTING STORM AND SANITARY SEWERS AT PROPOSED CONNECTION POINTS AND REPORT ANY DISCREPANCIES TO THE ENGINNEER BEFORE COMMENCING ANY WORK.
34. ALL SEWERS WITH LESS THAN 1.5m OF COVER ARE SUBJECT TO INSULATION DETAIL D2.
35. CONTRACTOR TO CCTV ALL NEW SEWERS, 250mmØ OR GREATER, TO ENSURE THEY ARE CLEAN AND OPERATIONAL UPON COMPLETION OF CONTRACT. THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS.
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37. SEWER CONNECTIONS TO BE MADE ABOVE THE SPRINGLINE OF THE SEWER AS PER CITY OF OTTAWA STANDARD S11, S11.1, AND S11.2.
38. INSTALLATION OF CATCH BASINS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD S1 AND S2.
39. CLAY SEALS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD S8.
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44. ROADWAY SUBDRAIN SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD R1.
45. REFER TO GRADING SHEETS FOR THE PONDING LIMITS AND VOLUMES.
46. INSTALL SAFETY PLATFORMS IN ACCORDANCE WITH OPSD 404.020 IN MAINTENANCE HOLES DEEPER THAN 5.0m.

CHAMBER 102 STORMWATER STORAGE NOTES:

1. UNDERGROUND STORMWATER STORAGE REQUIRED: 270.0 cu.m
   UNDERGROUND STORMWATER STORAGE PROVIDED: 270.0 cu.m
2. CHAMBER TYPE: RTANK XD HS-20 OR EQUIVALENT
3. BOTTOM OF CHAMBER ELEVATION: 72.07
4. TOP OF SYSTEM TO BE A MINIMUM OF 690mm BELOW FINISHED ROAD SURFACE

APPROVED
By Lily Xu at 10:40 am, May 21, 2024

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT, AND BUILDING SERVICES
DEPARTMENT, CITY OF OTTAWA

LEGEND:

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- PROPOSED BOLLARD (BY OTHERS)
- BOREHOLE
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- EXISTING TREE AND CRITICAL ROOT ZONE

KEY PLAN

5m 0 5 10m
SCALE: 1:250

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HDR

HDR Architecture Associates Inc.
300 Richmond Road, Suite 200
Ottawa, Ontario K1Z 6X6

PARSONS

LICENSED PROFESSIONAL ENGINEER
S.D.MITCHELSON
100128064
01/17/2024
PROVINCE OF ONTARIO

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

The Ottawa Hospital | L'Hôpital d'Ottawa

Architect	HDR
Landscape Architect	HDR
Civil Engineer	Parsons
Structural Engineer	EXP
Mechanical Engineer	Smith + Andersen
Electrical Engineer	Smith + Andersen
Plumbing Engineer	Smith + Andersen
Interior Designer	HDR
Equipment Planner	Colliers
Wayfinding	
Sheet Reviewer	Author

MARK	DATE	DESCRIPTION
01	2022-09-23	ISSUED FOR PRE-CONSULTATION
02	2022-10-28	DRAFT FOR 90% SD
03	2022-11-30	ISSUED FOR SPC & FLUDA - 1ST SUBMISSION
04	2022-12-02	ISSUED FOR 3A1-2
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Project Number 10333982
Original Issue 02/21/23

PRELIMINARY
NOT FOR CONSTRUCTION

Sheet Name
STAGE 3: HOSPITAL SITE SERVICING PLAN 1 OF 6

Sheet Number
C103

Project Status
STAGE 3

D07-12-22-0168

C:\pw_working\ontario\parsons_p005440\dms45122\477447-102-SS1-6 PSOS.dwg Wednesday, January 17, 2024 1:51:36 PM

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5. STRIP AND REMOVE ALL TOPSOIL FROM IMPROVED AREAS.
6. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
7. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT. PAVEMENT REINSTATEMENT SHALL BE WITH STEP JOINTS OF 500mm WIDTH MINIMUM IN ACCORDANCE WITH D2 ON DRAWING C103.
8. CURBS TO BE CONCRETE BARRIER, CONSTRUCTED AS PER CITY OF OTTAWA DETAIL SC1.1. ELEVATIONS AT CURB INDICATE THE GRADE AT THE FINISHED ROAD SURFACE UNLESS NOTED OTHERWISE.
9. RESTORE PAVEMENT STRUCTURE AND SURFACES ON EXISTING ROADS TO A CONDITION AT LEAST EQUAL TO ORIGINAL AND TO THE SATISFACTION OF THE MUNICIPAL AUTHORITIES.
10. ALL MATERIAL SUPPLIED AND PLACED FOR PARKING LOT AND ACCESS ROAD CONSTRUCTION SHALL BE TO OPSS STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED. CONSTRUCTION TO OPSS 206, 310 & 314. MATERIALS TO OPSS 1001, 1003 & 1010.
11. ABUTTING PROPERTY GRADE TO BE MATCHED.
12. OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE MUNICIPAL AUTHORITIES PRIOR TO COMMENCING CONSTRUCTION.
13. MINIMIZE DISTURBANCE TO EXISTING VEGETATION DURING THE EXECUTION OF ALL WORKS.
14. FILTER FABRIC TO BE INSTALLED AND MAINTAINED BETWEEN THE FRAME AND COVER OF ALL CATCHBASINS AND CATCHBASIN MANHOLES DURING THE CONSTRUCTION PERIOD TO MINIMIZE SEDIMENTS ENTERING THE STORM SEWER SYSTEM. ALL GRASSED AREAS MUST BE COMPLETED PRIOR TO THE REMOVAL OF THE FILTER FABRIC IN THE CATCH BASINS.
15. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE DIRECTED FROM THE ENGINEER. EXCAVATE AND REMOVE ALL ORGANIC MATERIAL AND DEBRIS LOCATED WITHIN THE PROPOSED BUILDING, PARKING AND ROADWAY LOCATIONS. ANY CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
16. THE APPROVAL OF THIS PLAN DOES NOT EXEMPT THE CONTRACTOR FROM THE REQUIREMENTS TO OBTAIN THE VARIOUS PERMITS/APPROVALS REQUIRED TO COMPLETE A CONSTRUCTION PROJECT, SUCH AS BUT NOT LIMITED TO; ROAD CUT PERMITS, SEWER PERMITS, WATER PERMIT, ETC.
17. AT PROPOSED UTILITY CONNECTION POINTS AND CROSSINGS (I.E. STORM SEWER, SANITARY SEWER, WATER, ETC.) THE CONTRACTOR SHALL DETERMINE THE PRECISE LOCATION AND DEPTH AND SIZE OF EXISTING UTILITIES AND REPORT ANY DISCREPANCIES OR CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES.
18. REFER TO ARCHITECT AND LANDSCAPE ARCHITECTS DRAWINGS FOR BUILDING, LANDSCAPE, AND HARD SURFACE AREAS AND DIMENSIONS.
19. REFER TO GEOTECHNICAL REPORT FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS.
20. CONTRACTOR IS RESPONSIBLE TO KEEP THE ROADS FREE AND CLEAN FROM MUD OR DEBRIS.

NOTES: WATERMAIN

21. SUPPLY AND INSTALL ALL WATERMAIN AND APPURTENANCES IN ACCORDANCE WITH MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
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26. IF WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.
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32. ALL WORK SHALL BE PERFORMED, AS APPLICABLE IN ACCORDANCE WITH OPSS 407 AND 410.
33. CONTRACTOR TO CONFIRM ELEVATION OF EXISTING STORM AND SANITARY SEWERS AT PROPOSED CONNECTION POINTS AND REPORT ANY DISCREPANCIES TO THE ENGINNEER BEFORE COMMENCING ANY WORK.
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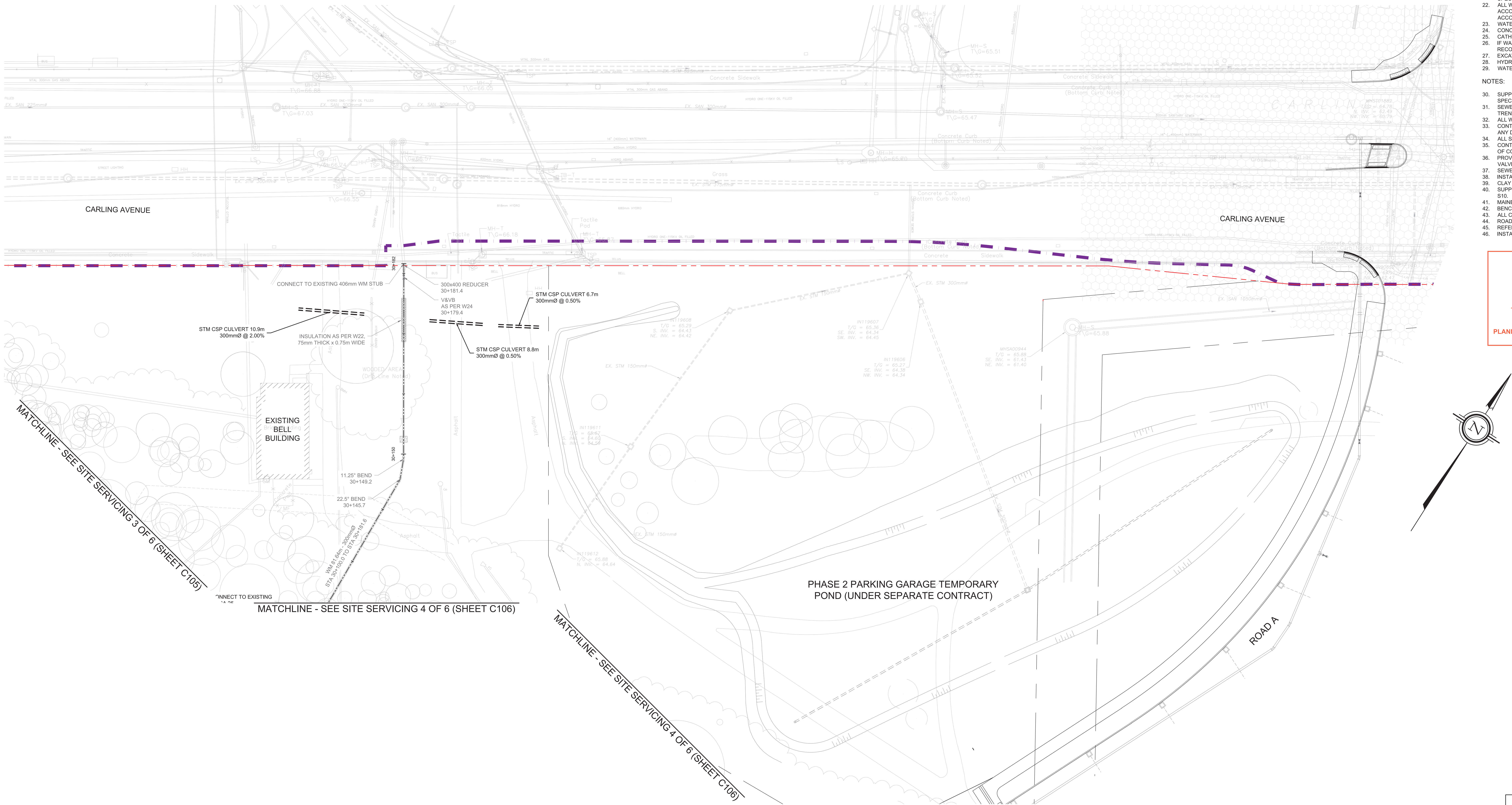

APPROVED
By Lily Xu at 10:53 am, May 21, 2024

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT, AND BUILDING SERVICES
DEPARTMENT, CITY OF OTTAWA

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5m 0 5 10m
SCALE: 1:250

KEY PLAN

HDR

HDR Architecture Associates Inc.
300 Richmond Road, Suite 200
Ottawa, Ontario K1Z 6X6

PARSONS

LICENSED PROFESSIONAL ENGINEER
S.D. MITCHELSON
100128064
01/17/2024
PROVINCE OF ONTARIO

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

The Ottawa Hospital | L'Hôpital d'Ottawa

Architect	HDR
Landscape Architect	HDR
Civil Engineer	Parsons
Structural Engineer	EXP
Mechanical Engineer	Smith + Andersen
Electrical Engineer	Smith + Andersen
Plumbing Engineer	Smith + Andersen
Interior Designer	HDR
Equipment Planner	Colliers
Wayfinding	

Sheet Reviewer	Author

MARK	DATE	DESCRIPTION
01	2022-09-23	ISSUED FOR PRE-CONSULTATION
02	2022-10-28	DRAFT FOR 90% SD
03	2022-11-30	ISSUED FOR SPC & FLUDA - 1ST SUBMISSION
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Project Number	10333982
Original Issue	02/21/23

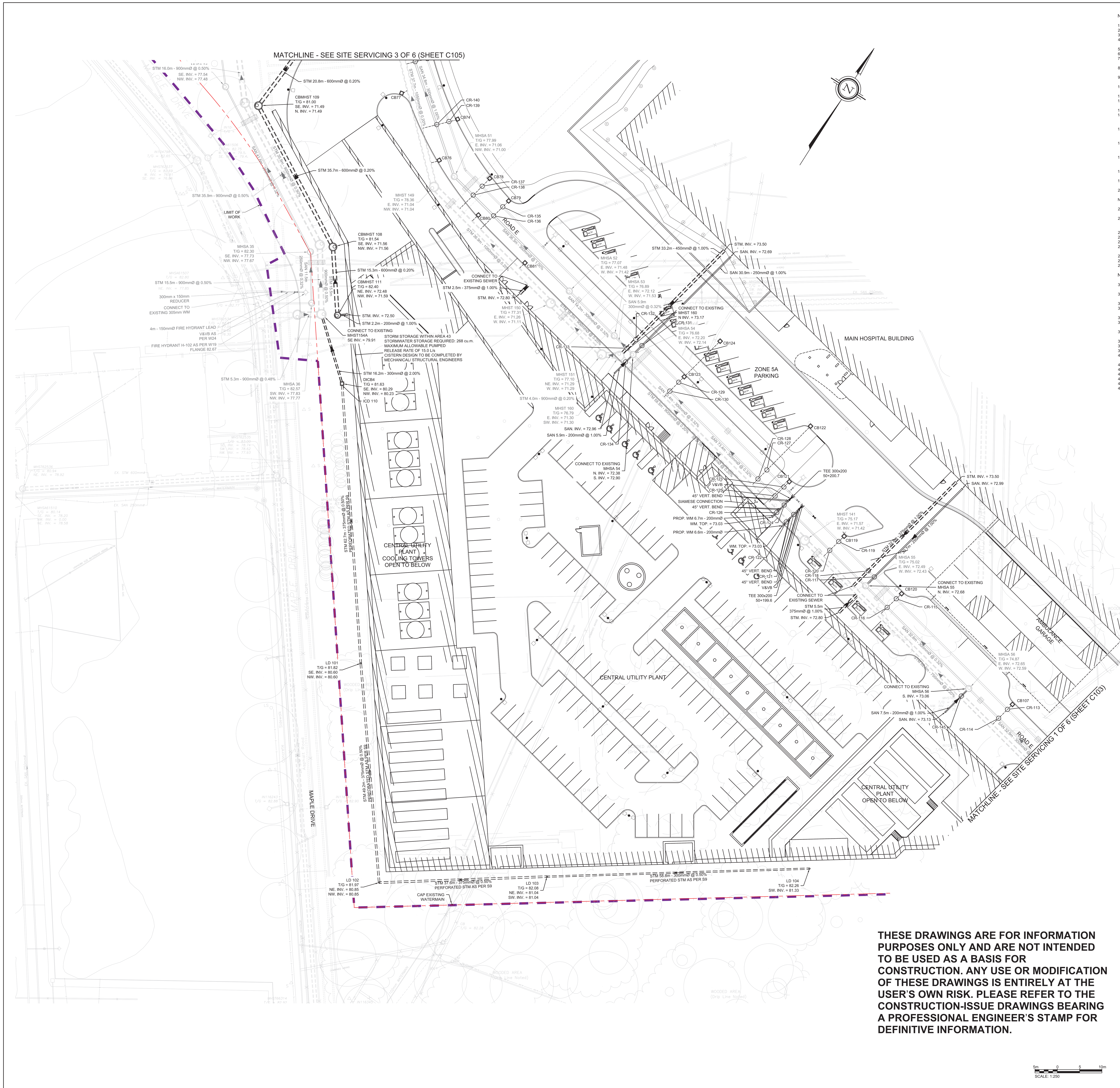
PRELIMINARY NOT FOR CONSTRUCTION

Sheet Name
STAGE 3: HOSPITAL SITE SERVICING PLAN 6 OF 6

Sheet Number
C108

Project Status
STAGE 3

D07-12-22-0168



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APPROVED
By Lily Xu at 10:42 am, May 21, 2024

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT, AND BUILDING SERVICES
DEPARTMENT, CITY OF OTTAWA

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KEY PLAN

HDR Architecture Associates Inc.
300 Richmond Road, Suite 200
Ottawa, Ontario K1Z 6X6

PARSONS

LICENSED PROFESSIONAL ENGINEER
S.D.MITCHELSON
100128064
01/17/2024
PROVINCE OF ONTARIO

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

The Ottawa Hospital | L'Hôpital d'Ottawa

Architect	HDR
Landscape Architect	HDR
Civil Engineer	Parsons
Structural Engineer	EXP
Mechanical Engineer	Smith + Andersen
Electrical Engineer	Smith + Andersen
Plumbing Engineer	Smith + Andersen
Interior Designer	HDR
Equipment Planner	Colliers
Wayfinding	
Sheet Reviewer	Author

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Project Number: 10333982
Original Issue: 02/21/23

PRELIMINARY
NOT FOR CONSTRUCTION

Sheet Name
STAGE 3: HOSPITAL SITE SERVICING PLAN 2 OF 6

Sheet Number
C104

Project Status
STAGE 3

D07-12-22-0168

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1. CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.
2. ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
3. JOB BENCH MARK - REFER TO SURVEY BY AOV LTD. CONFIRM WITH CONTRACT ADMINISTRATOR PRIOR TO UTILIZATION OF BENCH MARK.
4. ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
5. STRIP AND REMOVE ALL TOPSOIL FROM IMPROVED AREAS.
6. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
7. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT. PAVEMENT REINSTATEMENT SHALL BE WITH STEP JOINTS OF 500mm WIDTH MINIMUM IN ACCORDANCE WITH D2 ON DRAWING C103.
8. CURBS TO BE CONCRETE BARRIER, CONSTRUCTED AS PER CITY OF OTTAWA DETAIL SC1.1. ELEVATIONS AT CURB INDICATE THE GRADE AT THE FINISHED ROAD SURFACE UNLESS NOTED OTHERWISE.
9. RESTORE PAVEMENT STRUCTURE AND SURFACES ON EXISTING ROADS TO A CONDITION AT LEAST EQUAL TO ORIGINAL AND TO THE SATISFACTION OF THE MUNICIPAL AUTHORITIES.
10. ALL MATERIAL SUPPLIED AND PLACED FOR PARKING LOT AND ACCESS ROAD CONSTRUCTION SHALL BE TO OPSS STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED. CONSTRUCTION TO OPSS 206, 310 & 314. MATERIALS TO OPSS 1001, 1003 & 1010.
11. ABUTTING PROPERTY GRADE TO BE MATCHED.
12. OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE MUNICIPAL AUTHORITIES PRIOR TO COMMENCING CONSTRUCTION.
13. MINIMIZE DISTURBANCE TO EXISTING VEGETATION DURING THE EXECUTION OF ALL WORKS.
14. FILTER FABRIC TO BE INSTALLED AND MAINTAINED BETWEEN THE FRAME AND COVER OF ALL CATCHBASINS AND CATCHBASIN MANHOLES DURING THE CONSTRUCTION PERIOD TO MINIMIZE SEDIMENTS ENTERING THE STORM SEWER SYSTEM. ALL GRASSED AREAS MUST BE COMPLETED PRIOR TO THE REMOVAL OF THE FILTER FABRIC IN THE CATCH BASINS.
15. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE DIRECTED FROM THE ENGINEER. EXCAVATE AND REMOVE ALL ORGANIC MATERIAL AND DEBRIS LOCATED WITHIN THE PROPOSED BUILDING, PARKING AND ROADWAY LOCATIONS. ANY CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
16. THE APPROVAL OF THIS PLAN DOES NOT EXEMPT THE CONTRACTOR FROM THE REQUIREMENTS TO OBTAIN THE VARIOUS PERMITS/APPROVALS REQUIRED TO COMPLETE A CONSTRUCTION PROJECT, SUCH AS BUT NOT LIMITED TO; ROAD CUT PERMITS, SEWER PERMITS, WATER PERMIT, ETC.
17. AT PROPOSED UTILITY CONNECTION POINTS AND CROSSINGS (I.E. STORM SEWER, SANITARY SEWER, WATER, ETC.) THE CONTRACTOR SHALL DETERMINE THE PRECISE LOCATION AND DEPTH AND SIZE OF EXISTING UTILITIES AND REPORT ANY DISCREPANCIES OR CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES.
18. REFER TO ARCHITECT AND LANDSCAPE ARCHITECTS DRAWINGS FOR BUILDING, LANDSCAPE, AND HARD SURFACE AREAS AND DIMENSIONS.
19. REFER TO GEOTECHNICAL REPORT FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS.
20. CONTRACTOR IS RESPONSIBLE TO KEEP THE ROADS FREE AND CLEAN FROM MUD OR DEBRIS.

NOTES: WATERMAIN

21. SUPPLY AND INSTALL ALL WATERMAIN AND APPURTENANCES IN ACCORDANCE WITH MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
22. ALL WATERMAIN TO BE INSTALLED AT MINIMUM COVER OF 2.4m BELOW FINISHED GRADE. WHERE REQUIRED, PROVIDE INSULATION IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS W22 AND W23. WATERMAIN INSULATION AT OPEN STRUCTURES SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W23.
23. WATERMAIN BEDDING AS PER CITY OF OTTAWA STANDARD W17.
24. CONCRETE THRUST BLOCKS AND RESTRAINING AS PER CITY OF OTTAWA STANDARD W25.3, W25.4 (TABLE 3), W25.5 AND W25.6.
25. CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS AS PER CITY OF OTTAWA STANDARD W40 AND W42.
26. IF WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.
27. EXCAVATION, INSTALLATION, AND BACKFILL BY CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN BY CITY.
28. HYDRANT INSTALLATION SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W19.
29. WATERMAIN AND SEWER CORSSINGS TO BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS W25 AND W25.2.

NOTES: SEWER

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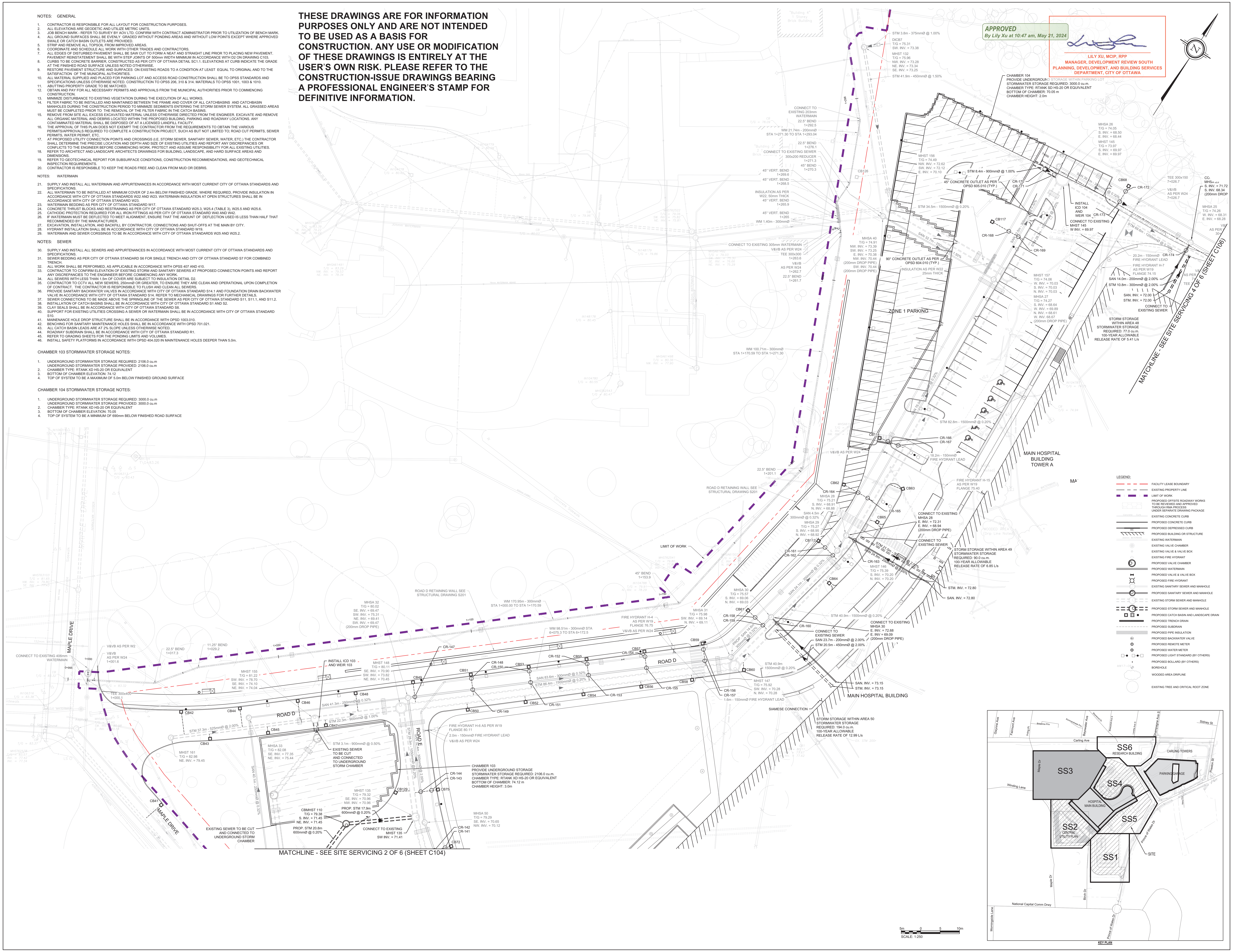
31. SEWER BEDDING AS PER CITY OF OTTAWA STANDARD S6 FOR SINGLE TRENCH AND CITY OF OTTAWA STANDARD S7 FOR COMBINED TRENCH.
32. ALL WORK SHALL BE PERFORMED, AS APPLICABLE IN ACCORDANCE WITH OPSS 407 AND 410.
33. CONTRACTOR TO CONFIRM ELEVATION OF EXISTING STORM AND SANITARY SEWERS AT PROPOSED CONNECTION POINTS AND REPORT ANY DISCREPANCIES TO THE ENGINNEER BEFORE COMMENCING ANY WORK.
34. ALL SEWERS WITH LESS THAN 1.5m OF COVER ARE SUBJECT TO INSULATION DETAIL D2.
35. CONTRACTOR TO CCTV ALL NEW SEWERS, 250mmØ OR GREATER, TO ENSURE THEY ARE CLEAN AND OPERATIONAL UPON COMPLETION OF CONTRACT. THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS.
36. PROVIDE SANITARY BACKWATER VALVES IN ACCORDANCE WITH CITY OF OTTAWA STANDARD S14.1 AND FOUNDATION DRAIN BACKWATER VALVE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD S14. REFER TO MECHANICAL DRAWINGS FOR FURTHER DETAILS.
37. SEWER CONNECTIONS TO BE MADE ABOVE THE SPRINGLINE OF THE SEWER AS PER CITY OF OTTAWA STANDARD S11, S11.1, AND S11.2.
38. INSTALLATION OF CATCH BASINS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD S1 AND S2.
39. CLAY SEALS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD S8.
40. SUPPORT FOR EXISTING UTILITIES CROSSING A SEWER OR WATERMAIN SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD S10.
41. MAINENANCE HOLE DROP STRUCTURE SHALL BE IN ACCORDANCE WITH OPSD 1003.010.
42. BENCHING FOR SANITARY MAINTENANCE HOLES SHALL BE IN ACCORDANCE WITH OPSD 701.021.
43. ALL CATCH BASIN LEADS ARE AT 2% SLOPE UNLESS OTHERWISE NOTED.
44. ROADWAY SUBDRAIN SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD R1.
45. REFER TO GRADING SHEETS FOR THE PONDING LIMITS AND VOLUMES.
46. INSTALL SAFETY PLATFORMS IN ACCORDANCE WITH OPSD 404.020 IN MAINTENANCE HOLES DEEPER THAN 5.0m.

CHAMBER 103 STORMWATER STORAGE NOTES:

1. UNDERGROUND STORMWATER STORAGE REQUIRED: 2106.0 cu.m
   UNDERGROUND STORMWATER STORAGE PROVIDED: 2106.0 cu.m
2. CHAMBER TYPE: RTANK XD HS-20 OR EQUIVALENT
3. BOTTOM OF CHAMBER ELEVATION: 74.12
4. TOP OF SYSTEM TO BE A MAXIMUM OF 5.0m BELOW FINISHED GROUND SURFACE

CHAMBER 104 STORMWATER STORAGE NOTES:

1. UNDERGROUND STORMWATER STORAGE REQUIRED: 3000.0 cu.m
   UNDERGROUND STORMWATER STORAGE PROVIDED: 3000.0 cu.m
2. CHAMBER TYPE: RTANK XD HS-20 OR EQUIVALENT
3. BOTTOM OF CHAMBER ELEVATION: 70.05
4. TOP OF SYSTEM TO BE A MINIMUM OF 690mm BELOW FINISHED ROAD SURFACE



HDR

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PARSONS

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S.D.MITCHELSON
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01/17/2024
PROVINCE OF ONTARIO

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

The Ottawa Hospital | L'Hôpital d'Ottawa

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Landscape Architect	HDR
Civil Engineer	Parsons
Structural Engineer	EXP
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Sheet Reviewer	Author

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Sheet Name

STAGE 3: HOSPITAL SITE SERVICING PLAN 3 OF 6

Sheet Number

C105

Project Status

STAGE 3

D07-12-22-0168

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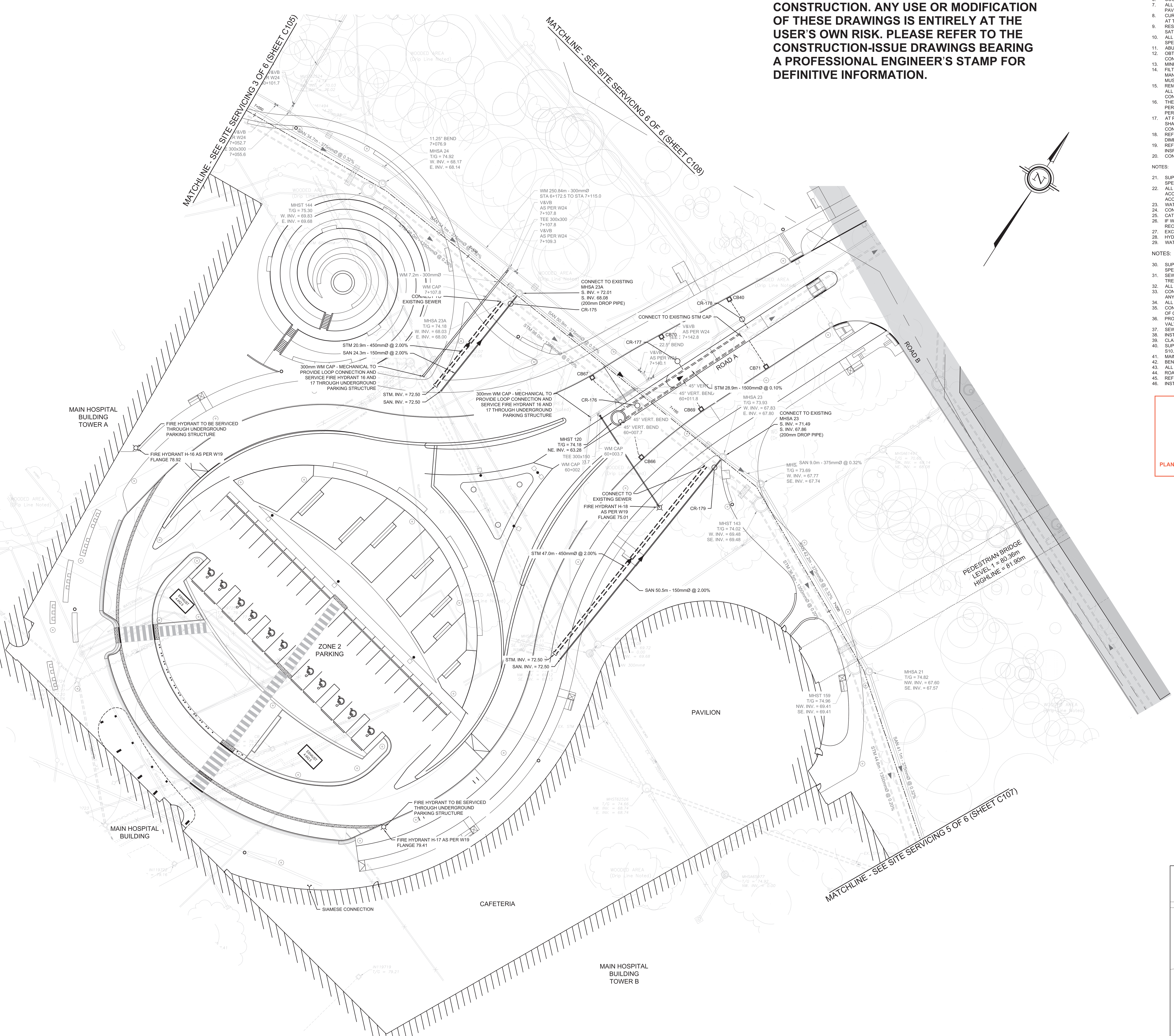

5m 0 5 10m
SCALE: 1:250

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APPROVED
By Lily Xu at 10:48 am, May 21, 2024

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT, AND BUILDING SERVICES DEPARTMENT, CITY OF OTTAWA

LEGEND:

- FACILITY LEASE BOUNDARY
- EXISTING PROPERTY LINE
- LIMIT OF WORK
- PROPOSED OFFSITE ROADWAY WORKS TO BE REVIEWED AND APPROVED THROUGH RMA PROCESS UNDER SEPARATE DRAWING PACKAGE
- EXISTING CONCRETE CURB
- PROPOSED CONCRETE CURB
- PROPOSED DEPRESSED CURB
- PROPOSED BUILDING OR STRUCTURE
- EXISTING WATERMAIN
- EXISTING VALVE CHAMBER
- EXISTING VALVE & VALVE BOX
- EXISTING FIRE HYDRANT
- PROPOSED VALVE CHAMBER
- PROPOSED WATERMAIN
- PROPOSED VALVE & VALVE BOX
- PROPOSED FIRE HYDRANT
- EXISTING SANITARY SEWER AND MANHOLE
- PROPOSED SANITARY SEWER AND MANHOLE
- EXISTING STORM SEWER AND MANHOLE
- PROPOSED STORM SEWER AND MANHOLE
- PROPOSED CATCH BASIN AND LANDSCAPE DRAIN
- PROPOSED TRENCH DRAIN
- PROPOSED SUBDRAIN
- PROPOSED PIPE INSULATION
- PROPOSED BACKWATER VALVE
- PROPOSED REMOTE METER
- PROPOSED WATER METER
- PROPOSED LIGHT STANDARD (BY OTHERS)
- PROPOSED BOLLARD (BY OTHERS)
- BOREHOLE
- WOODED AREA DRIPLINE
- EXISTING TREE AND CRITICAL ROOT ZONE

KEY PLAN

HDR

HDR Architecture Associates Inc.
300 Richmond Road, Suite 200
Ottawa, Ontario K1Z 6X6

PARSONS

LICENSED PROFESSIONAL ENGINEER
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100128064
01/17/2024
PROVINCE OF ONTARIO

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

The Ottawa Hospital | L'Hôpital d'Ottawa

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PRELIMINARY NOT FOR CONSTRUCTION

Sheet Name
STAGE 3: HOSPITAL SITE SERVICING PLAN 4 OF 6

Sheet Number
C106

Project Status
STAGE 3

D07-12-22-0168

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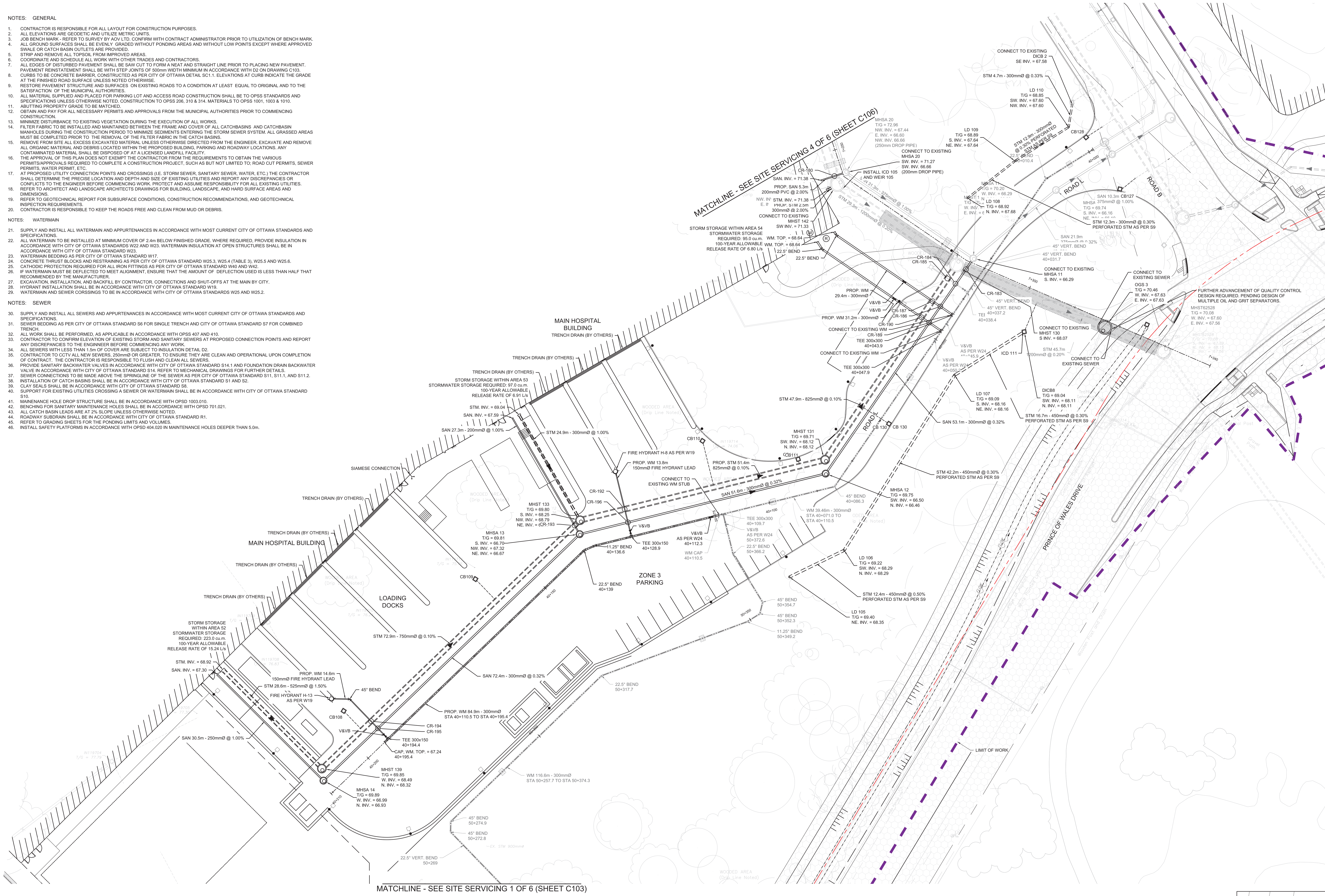
14. FILTER FABRIC TO BE INSTALLED AND MAINTAINED BETWEEN THE FRAME AND COVER OF ALL CATCHBASINS AND CATCHBASIN MANHOLES DURING THE CONSTRUCTION PERIOD TO MINIMIZE SEDIMENTS ENTERING THE STORM SEWER SYSTEM. ALL GRASSED AREAS MUST BE COMPLETED PRIOR TO THE REMOVAL OF THE FILTER FABRIC IN THE CATCH BASINS.
15. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE DIRECTED FROM THE ENGINEER. EXCAVATE AND REMOVE ALL ORGANIC MATERIAL AND DEBRIS LOCATED WITHIN THE PROPOSED BUILDING, PARKING AND ROADWAY LOCATIONS. ANY CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
16. THE APPROVAL OF THIS PLAN DOES NOT EXEMPT THE CONTRACTOR FROM THE REQUIREMENTS TO OBTAIN THE VARIOUS PERMITS/APPROVALS REQUIRED TO COMPLETE A CONSTRUCTION PROJECT, SUCH AS BUT NOT LIMITED TO; ROAD CUT PERMITS, SEWER PERMITS, WATER PERMIT, ETC.
17. AT PROPOSED UTILITY CONNECTION POINTS AND CROSSINGS (I.E. STORM SEWER, SANITARY SEWER, WATER, ETC.) THE CONTRACTOR SHALL DETERMINE THE PRECISE LOCATION AND DEPTH AND SIZE OF EXISTING UTILITIES AND REPORT ANY DISCREPANCIES OR CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES.
18. REFER TO ARCHITECT AND LANDSCAPE ARCHITECTS DRAWINGS FOR BUILDING, LANDSCAPE, AND HARD SURFACE AREAS AND DIMENSIONS.
19. REFER TO GEOTECHNICAL REPORT FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS.
20. CONTRACTOR IS RESPONSIBLE TO KEEP THE ROADS FREE AND CLEAN FROM MUD OR DEBRIS.

NOTES: WATERMAIN

21. SUPPLY AND INSTALL ALL WATERMAIN AND APPURTENANCES IN ACCORDANCE WITH MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
22. ALL WATERMAIN TO BE INSTALLED AT MINIMUM COVER OF 2.4m BELOW FINISHED GRADE. WHERE REQUIRED, PROVIDE INSULATION IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS W22 AND W23. WATERMAIN INSULATION AT OPEN STRUCTURES SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W23.
23. WATERMAIN BEDDING AS PER CITY OF OTTAWA STANDARD W17.
24. CONCRETE THRUST BLOCKS AND RESTRAINING AS PER CITY OF OTTAWA STANDARD W25.3, W25.4 (TABLE 3), W25.5 AND W25.6.
25. CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS AS PER CITY OF OTTAWA STANDARD W40 AND W42.
26. IF WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.
27. EXCAVATION, INSTALLATION, AND BACKFILL BY CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN BY CITY.
28. HYDRANT INSTALLATION SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD W19.
29. WATERMAIN AND SEWER CORSSINGS TO BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARDS W25 AND W25.2.

NOTES: SEWER

30. SUPPLY AND INSTALL ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
31. SEWER BEDDING AS PER CITY OF OTTAWA STANDARD S6 FOR SINGLE TRENCH AND CITY OF OTTAWA STANDARD S7 FOR COMBINED TRENCH.
32. ALL WORK SHALL BE PERFORMED, AS APPLICABLE IN ACCORDANCE WITH OPSS 407 AND 410.
33. CONTRACTOR TO CONFIRM ELEVATION OF EXISTING STORM AND SANITARY SEWERS AT PROPOSED CONNECTION POINTS AND REPORT ANY DISCREPANCIES TO THE ENGINNEER BEFORE COMMENCING ANY WORK.
34. ALL SEWERS WITH LESS THAN 1.5m OF COVER ARE SUBJECT TO INSULATION DETAIL D2.
35. CONTRACTOR TO CCTV ALL NEW SEWERS, 250mmØ OR GREATER, TO ENSURE THEY ARE CLEAN AND OPERATIONAL UPON COMPLETION OF CONTRACT. THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS.
36. PROVIDE SANITARY BACKWATER VALVES IN ACCORDANCE WITH CITY OF OTTAWA STANDARD S14.1 AND FOUNDATION DRAIN BACKWATER VALVE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD S14. REFER TO MECHANICAL DRAWINGS FOR FURTHER DETAILS.
37. SEWER CONNECTIONS TO BE MADE ABOVE THE SPRINGLINE OF THE SEWER AS PER CITY OF OTTAWA STANDARD S11, S11.1, AND S11.2.
38. INSTALLATION OF CATCH BASINS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD S1 AND S2.
39. CLAY SEALS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD S8.
40. SUPPORT FOR EXISTING UTILITIES CROSSING A SEWER OR WATERMAIN SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD S10.
41. MAINENANCE HOLE DROP STRUCTURE SHALL BE IN ACCORDANCE WITH OPSD 1003.010.
42. BENCHING FOR SANITARY MAINTENANCE HOLES SHALL BE IN ACCORDANCE WITH OPSD 701.021.
43. ALL CATCH BASIN LEADS ARE AT 2% SLOPE UNLESS OTHERWISE NOTED.
44. ROADWAY SUBDRAIN SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD R1.
45. REFER TO GRADING SHEETS FOR THE PONDING LIMITS AND VOLUMES.
46. INSTALL SAFETY PLATFORMS IN ACCORDANCE WITH OPSD 404.020 IN MAINTENANCE HOLES DEEPER THAN 5.0m.



APPROVED
By Lily Xu at 10:50 am, May 21, 2024

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT, AND BUILDING SERVICES
DEPARTMENT, CITY OF OTTAWA

LICENSED PROFESSIONAL ENGINEER
S.D.MITCHELSON
100128064
01/17/2024
PROVINCE OF ONTARIO

LEGEND:

- FACILITY LEASE BOUNDARY
- EXISTING PROPERTY LINE
- LIMIT OF WORK
- PROPOSED OFFSITE ROADWAY WORKS TO BE REVIEWED AND APPROVED THROUGH RMA PROCESS UNDER SEPARATE DRAWING PACKAGE
- EXISTING CONCRETE CURB
- PROPOSED CONCRETE CURB
- PROPOSED DEPRESSED CURB
- PROPOSED BUILDING OR STRUCTURE
- EXISTING WATERMAIN
- EXISTING VALVE CHAMBER
- EXISTING VALVE & VALVE BOX
- EXISTING FIRE HYDRANT
- PROPOSED VALVE CHAMBER
- PROPOSED WATERMAIN
- PROPOSED VALVE & VALVE BOX
- PROPOSED FIRE HYDRANT
- EXISTING SANITARY SEWER AND MANHOLE
- PROPOSED SANITARY SEWER AND MANHOLE
- EXISTING STORM SEWER AND MANHOLE
- PROPOSED STORM SEWER AND MANHOLE
- PROPOSED CATCH BASIN AND LANDSCAPE DRAIN
- PROPOSED TRENCH DRAIN
- PROPOSED SUBDRAIN
- PROPOSED PIPE INSULATION
- PROPOSED BACKWATER VALVE
- PROPOSED REMOTE METER
- PROPOSED WATER METER
- PROPOSED LIGHT STANDARD (BY OTHERS)
- PROPOSED BOLLARD (BY OTHERS)
- BOREHOLE
- WOODED AREA DRIPLINE
- EXISTING TREE AND CRITICAL ROOT ZONE

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5m 0 5 10m
SCALE: 1:250

KEY PLAN

HDR

HDR Architecture Associates Inc.
300 Richmond Road, Suite 200
Ottawa, Ontario K1Z 6X6

PARSONS

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

The Ottawa Hospital | L'Hôpital d'Ottawa

Architect	HDR
Landscape Architect	HDR
Civil Engineer	Parsons
Structural Engineer	EXP
Mechanical Engineer	Smith + Andersen
Electrical Engineer	Smith + Andersen
Plumbing Engineer	Smith + Andersen
Interior Designer	HDR
Equipment Planner	Colliers
Wayfinding	
Sheet Reviewer	Author

MARK	DATE	DESCRIPTION
01	2022-09-23	ISSUED FOR PRE-CONSULTATION
02	2022-10-28	DRAFT FOR 90% SD
03	2022-11-30	ISSUED FOR SPC & FLUDA - 1ST SUBMISSION
04	2022-12-02	ISSUED FOR 3A1-2
05	2023-02-24	ISSUED FOR RFP VERSION 1.0
06	2023-04-12	RE-ISSUED FOR SPC & FLUDA
07	2023-07-28	ISSUED FOR PSOS
08	2023-08-04	RE-ISSUED FOR PSOS
09	2023-09-29	ISSUED FOR REVIEW AND COSTING
10	2023-10-27	ISSUED FOR MOH 3A.3
11	2024-01-17	ISSUED FOR DELEGATED AUTHORITY REPORT

Project Number 10333982
Original Issue 02/21/23

PRELIMINARY
NOT FOR CONSTRUCTION

Sheet Name
STAGE 3: HOSPITAL SITE SERVICING PLAN 5 OF 6

Sheet Number
C107

Project Status
STAGE 3

D07-12-22-0168

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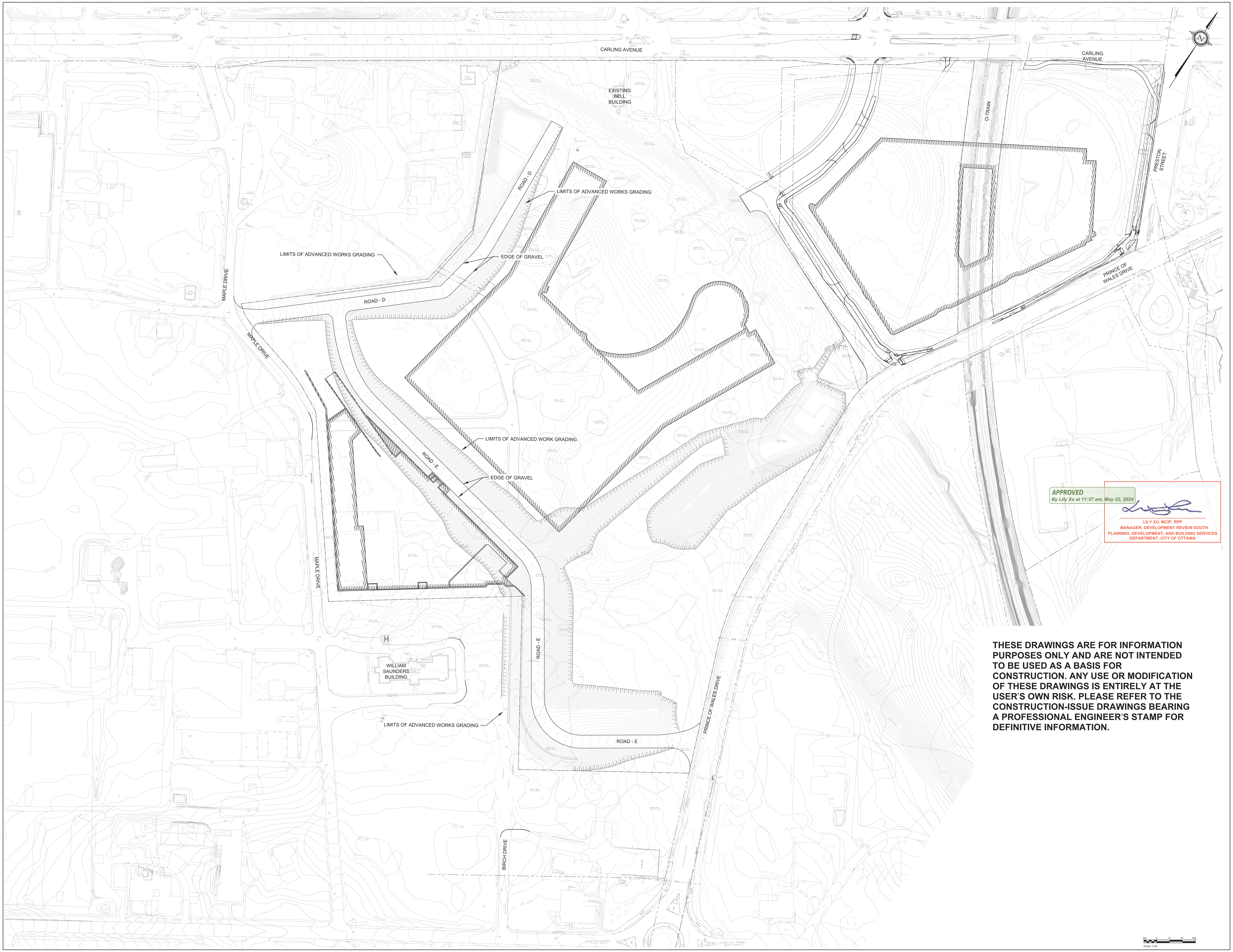

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HDR Architecture Associates Inc.
300 Richmond Road, Suite 200
Ottawa, Ontario K1Z 6X6

S.D. MITCHELSON
100128064
01/17/2024
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

The Ottawa Hospital | L'Hôpital d'Ottawa

Architect	HDR
Landscape Architect	HDR
Civil Engineer	Parsons
Structural Engineer	EXP
Mechanical Engineer	Smith + Andersen
Electrical Engineer	Smith + Andersen
Plumbing Engineer	Smith + Andersen
Interior Designer	HDR
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Project Number 10333982
Original Issue 02/21/23

PRELIMINARY NOT FOR CONSTRUCTION

Sheet Name
STAGE 3: HOSPITAL EXISTING GRADING PLAN

Sheet Number
C109

Project Status
STAGE 3

D07-12-22-0168

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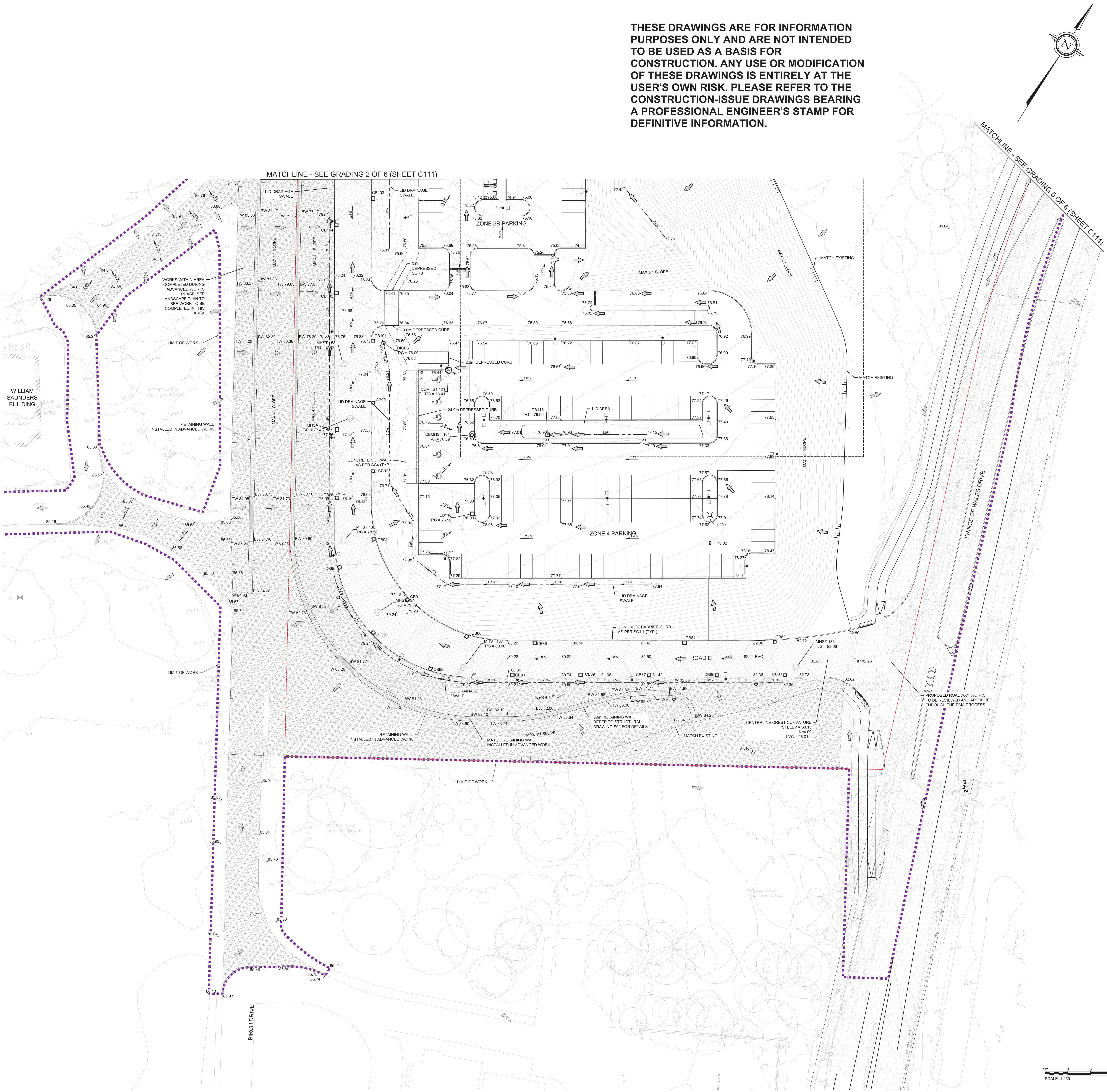

NOTES: GRADING

1. CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.
2. ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
3. JOB BENCH MARK - REFER TO SURVEY BY AOV LTD. CONFIRM WITH CONTRACT ADMINISTRATOR PRIOR TO UTILIZATION OF BENCH MARK.
4. ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
5. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
6. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT. PAVEMENT REINSTATEMENT SHALL BE WITH STEP JOINTS OF 500mm WIDTH MINIMUM IN ACCORDANCE WITH D2 ON DRAWING C103.
7. CURBS TO BE CONCRETE BARRIER, CONSTRUCTED AS PER CITY OF OTTAWA DETAIL SC1.1. ELEVATIONS AT CURB INDICATE THE GRADE AT THE FINISHED ROAD SURFACE UNLESS NOTED OTHERWISE.
8. RESTORE PAVEMENT STRUCTURE AND SURFACES ON EXISTING ROADS TO A CONDITION AT LEAST EQUAL TO ORIGINAL AND TO THE SATISFACTION OF THE MUNICIPAL AUTHORITIES.
9. ALL MATERIAL SUPPLIED AND PLACED FOR PARKING LOT AND ACCESS ROAD CONSTRUCTION SHALL BE TO OPSS STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED. CONSTRUCTION TO OPSS 206, 310 & 314. MATERIALS TO OPSS 1001, 1003 & 1010.
10. ABUTTING PROPERTY GRADE TO BE MATCHED.
11. OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE MUNICIPAL AUTHORITIES PRIOR TO COMMENCING CONSTRUCTION.
12. FILTER FABRIC TO BE INSTALLED AND MAINTAINED BETWEEN THE FRAME AND COVER OF ALL CATCHBASINS AND CATCHBASIN MANHOLES DURING THE CONSTRUCTION PERIOD TO MINIMIZE SEDIMENTS ENTERING THE STORM SEWER SYSTEM. ALL GRASSED AREAS MUST BE COMPLETED PRIOR TO THE REMOVAL OF THE FILTER FABRIC IN THE CATCH BASINS.
13. THE APPROVAL OF THIS PLAN DOES NOT EXEMPT THE CONTRACTOR FROM THE REQUIREMENTS TO OBTAIN THE VARIOUS PERMITS/APPROVALS REQUIRED TO COMPLETE A CONSTRUCTION PROJECT, SUCH AS BUT NOT LIMITED TO; ROAD CUT PERMITS, SEWER PERMITS, WATER PERMIT, ETC.
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15. REFER TO ARCHITECT AND LANDSCAPE ARCHITECTS DRAWINGS FOR BUILDING, LANDSCAPE, AND HARD SURFACE AREAS AND DIMENSIONS.
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18. EXISTING SERVICES AND UTILITIES SHOWN ON THESE DRAWINGS ARE TAKEN FROM THE BEST AVAILABLE RECORDS, BUT ARE NOT COMPLETE. CONTRACTOR IS ADVISED TO CHECK IN FIELD FOR LOCATION AND ELEVATION OF PIPES AND CHECK WITH THE UTILITY COMPANIES BEFORE DIGGING
19. REFER TO STRUCTURAL DRAWINGS FOR SITE RETAINING WALLS.
20. REFER TO MECHANICAL DRAWINGS FOR SNOW MELT AREAS.
21. REFER TO ELECTRICAL DRAWINGS FOR SITE LIGHTING.
22. CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.
23. CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS AS DEEMED NECESSARY.
24. UNLESS THE REVISION TITLE IS "ISSUED FOR CONSTRUCTION", THIS SHALL BE CONSIDERED PRELIMINARY AND SHALL NOT BE USED AS A CONSTRUCTION DOCUMENT.
25. ALL STRUCTURES TO BE ADJUSTED TO FINAL GRADE.

APPROVED
By Lily Xu at 11:38 am, May 22, 2024

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT, AND BUILDING SERVICES DEPARTMENT, CITY OF OTTAWA

RECOMMENDED PAVEMENT STRUCTURE – PARKING AREAS	
THICKNESS(mm)	MATERIAL DESCRIPTION
50	SUPERPAVE 12.5mm SURFACE COURSE
150	S.P. F-3147 GRANULAR A BASE
400	S.P. F-3147 GRANULAR B TYPE II SUBBASE

RECOMMENDED PAVEMENT STRUCTURE – LOCAL ROUTES	
THICKNESS(mm)	MATERIAL DESCRIPTION
40	SUPERPAVE 12.5mm SURFACE COURSE
50	SUPERPAVE 19.0mm BINDER COURSE
150	S.P. F-3147 GRANULAR A BASE
400	S.P. F-3147 GRANULAR B TYPE II SUBBASE

RECOMMENDED PAVEMENT STRUCTURE – COLLECTOR ROUTES	
THICKNESS(mm)	MATERIAL DESCRIPTION
50	SUPERPAVE 12.5mm FC1 SURFACE COURSE
70	SUPERPAVE 19.0mm BINDER COURSE
150	S.P. F-3147 GRANULAR A BASE
400	S.P. F-3147 GRANULAR B TYPE II SUBBASE

RECOMMENDED PAVEMENT STRUCTURE – RIGID PAVEMENT	
THICKNESS(mm)	MATERIAL DESCRIPTION
200	PORTLAND CEMENT CONCRETE
150	S.P. F-3147 GRANULAR A BASE
400	S.P. F-3147 GRANULAR B TYPE II SUBBASE

LEGEND:

- FACILITY LEASE BOUNDARY
- EXISTING PROPERTY LINE
- LIMIT OF WORK
- ADVANCED WORKS PHASE
- PROPOSED OFFSITE ROADWAY WORKS TO BE REVIEWED AND APPROVED THROUGH RMA PROCESS UNDER SEPARATE DRAWING PACKAGE
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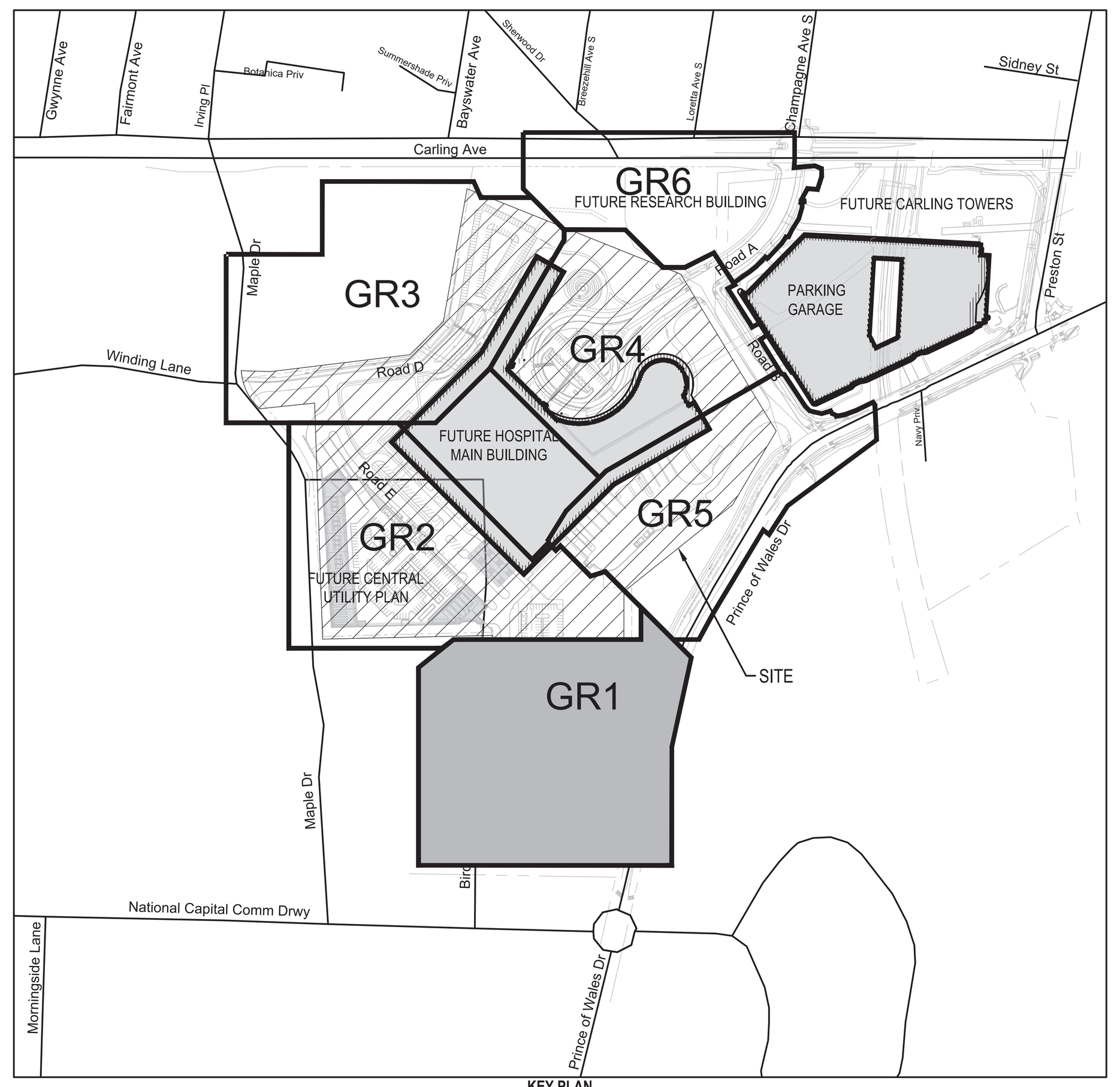
- PROPOSED VALVE CHAMBER
- PROPOSED VALVE & VALVE BOX
- PROPOSED FIRE HYDRANT
- EXISTING SANITARY MANHOLE
- PROPOSED SANITARY MANHOLE
- EXISTING STORM MANHOLE
- PROPOSED STORM MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED TRENCH DRAIN
- 113.45 — EXISTING GRADE
- 114.40 — PROPOSED GRADE
- BW 114.40 — PROPOSED GROUND GRADE AT BOTTOM OF WALL
- TW 114.40 — PROPOSED GROUND GRADE AT TOP OF WALL
- TC 114.40 — PROPOSED TOP OF CURB GRADE
- PROPOSED RETAINING WALL
- PROPOSED DITCH
- PROPOSED TERRACING (MAX 3:1 SLOPE)
- PROPOSED TWSI AS PER SC7.3
- FIRE ROUTE (COLLECTOR ROUTE PAVEMENT)
- PROPOSED LIGHT STANDARD (BY OTHERS)
- PROPOSED BOLLARD (BY OTHERS)
- MAJOR OVERLAND FLOW ROUTE
- EXISTING TREE AND CRITICAL ROOT ZONE
- WOODED AREA DRIPLINE



KEY PLAN

HDR

HDR Architecture Associates Inc.
300 Richmond Road, Suite 200
Ottawa, Ontario K1Z 6X6

PARSONS

LICENSED PROFESSIONAL ENGINEER
S.D. MITCHELSON
100128064
01/17/2024
PROVINCE OF ONTARIO

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

The Ottawa Hospital | L'Hôpital d'Ottawa

Architect	HDR
Landscape Architect	HDR
Civil Engineer	Parsons
Structural Engineer	EXP
Mechanical Engineer	Smith + Andersen
Electrical Engineer	Smith + Andersen
Plumbing Engineer	Smith + Andersen
Interior Designer	HDR
Equipment Planner	Colliers
Wayfinding	
Sheet Reviewer	Author

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11	2024-01-17	ISSUED FOR DELEGATED AUTHORITY REPORT

Project Number: 10333982
Original Issue: 02/21/23

PRELIMINARY NOT FOR CONSTRUCTION

Sheet Name
STAGE 3: HOSPITAL GRADING PLAN 1 OF 6

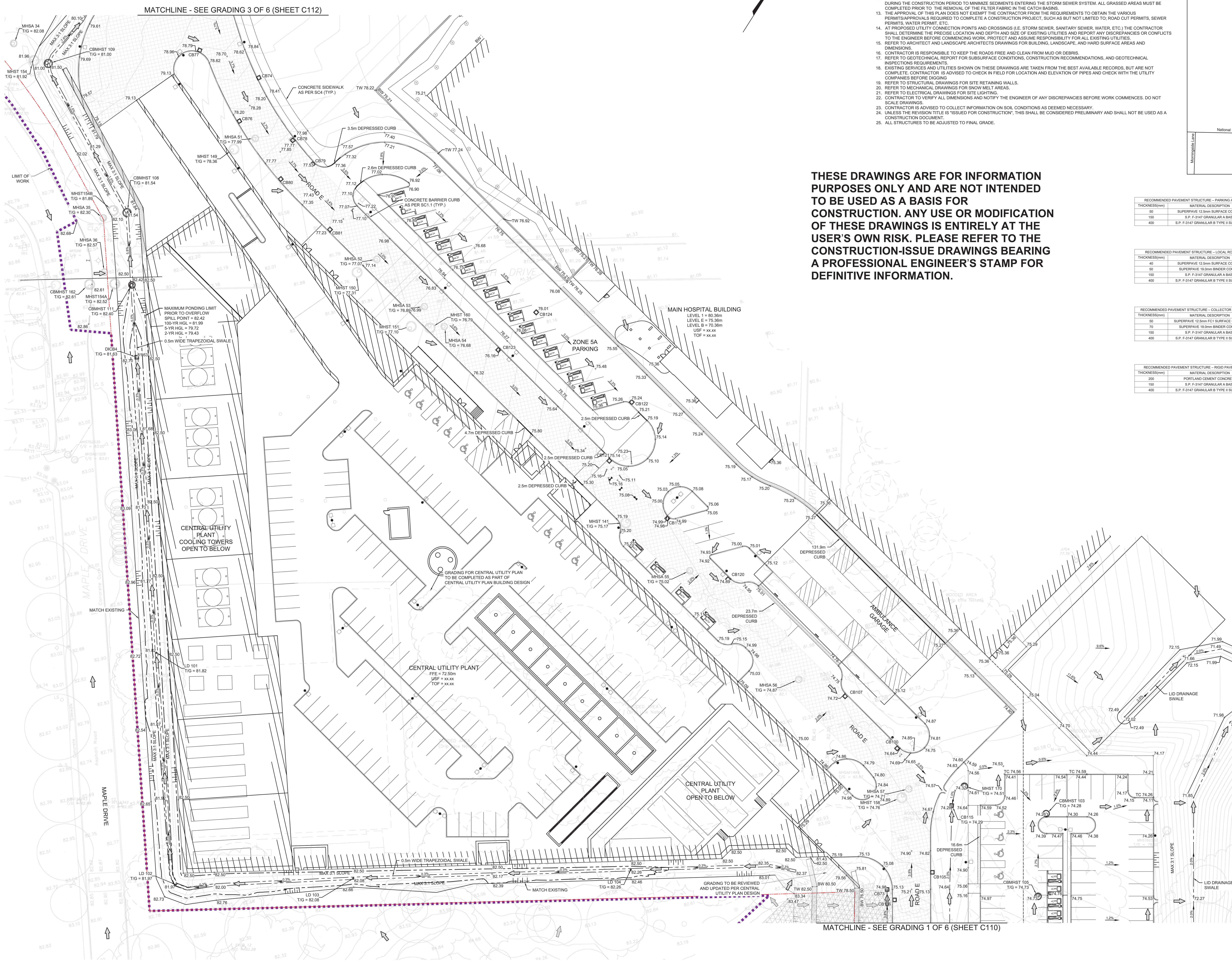
Sheet Number
C110

Project Status
STAGE 3

D07-12-22-0168

APPROVED
By Lily Xu at 11:39 am, May 22, 2024

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT, AND BUILDING SERVICES
DEPARTMENT, CITY OF OTTAWA



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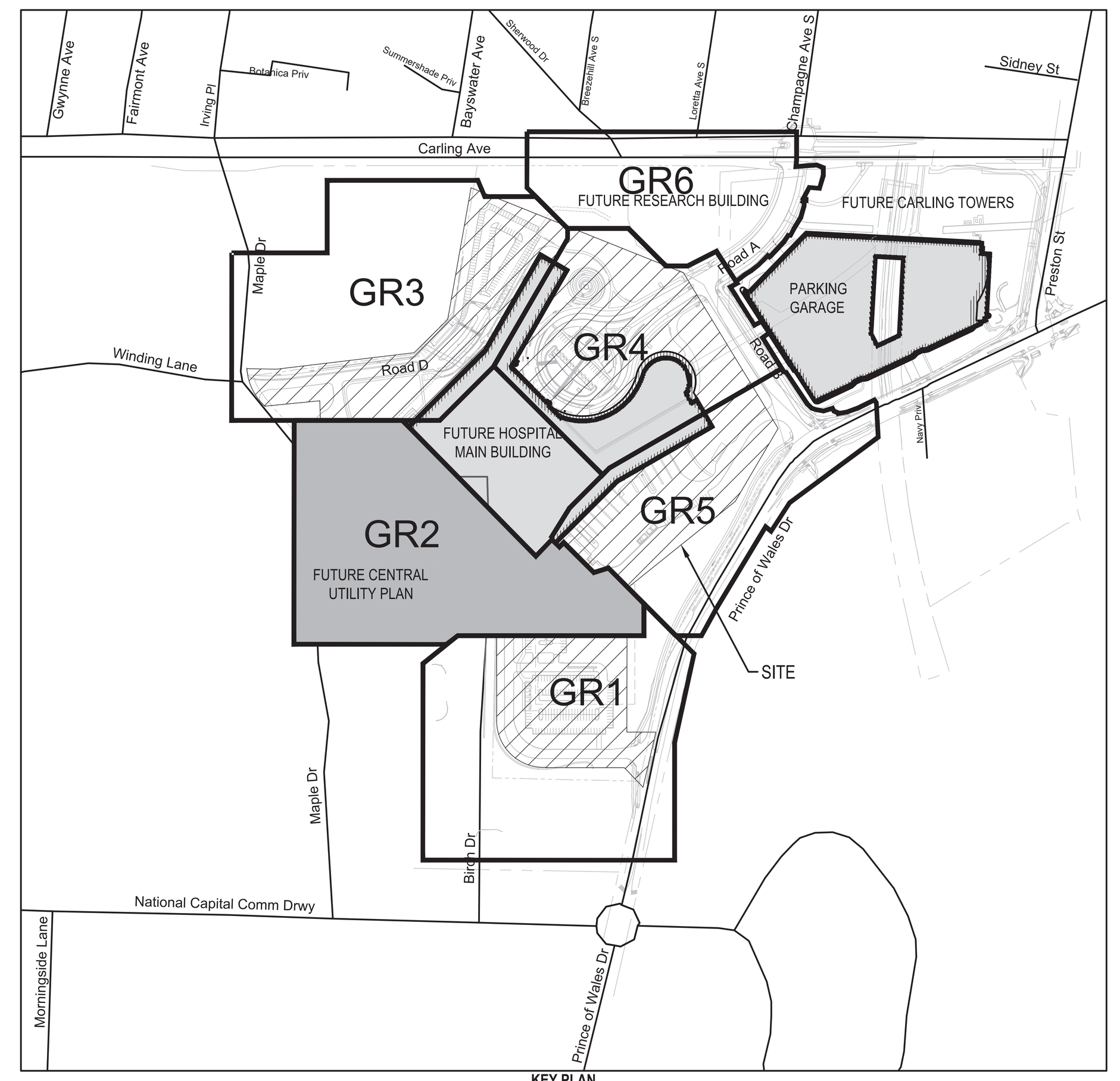

KEY PLAN

RECOMMENDED PAVEMENT STRUCTURE – PARKING AREAS	
THICKNESS(mm)	MATERIAL DESCRIPTION
50	SUPERPAVE 12.5mm SURFACE COURSE
150	S.P. F-3147 GRANULAR A BASE
400	S.P. F-3147 GRANULAR B TYPE II SUBBASE

RECOMMENDED PAVEMENT STRUCTURE – LOCAL ROUTES	
THICKNESS(mm)	MATERIAL DESCRIPTION
40	SUPERPAVE 12.5mm SURFACE COURSE
50	SUPERPAVE 19.0mm BINDER COURSE
150	S.P. F-3147 GRANULAR A BASE
400	S.P. F-3147 GRANULAR B TYPE II SUBBASE

RECOMMENDED PAVEMENT STRUCTURE – COLLECTOR ROUTES	
THICKNESS(mm)	MATERIAL DESCRIPTION
50	SUPERPAVE 12.5mm FC1 SURFACE COURSE
70	SUPERPAVE 19.0mm BINDER COURSE
150	S.P. F-3147 GRANULAR A BASE
400	S.P. F-3147 GRANULAR B TYPE II SUBBASE

RECOMMENDED PAVEMENT STRUCTURE – RIGID PAVEMENT	
THICKNESS(mm)	MATERIAL DESCRIPTION
200	PORTLAND CEMENT CONCRETE
150	S.P. F-3147 GRANULAR A BASE
400	S.P. F-3147 GRANULAR B TYPE II SUBBASE

LEGEND:

- FACILITY LEASE BOUNDARY
- EXISTING PROPERTY LINE
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- ADVANCED WORKS PHASE
- PROPOSED OFFSITE ROADWAY WORKS TO BE REVIEWED AND APPROVED THROUGH RMA PROCESS UNDER SEPARATE DRAWING PACKAGE
- EXISTING CONCRETE CURB
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- 113.45 EXISTING GRADE
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5m 0 5 10m
SCALE: 1:250

HDR

HDR Architecture Associates Inc.
300 Richmond Road, Suite 200
Ottawa, Ontario K1Z 6X6

PARSONS

LICENSED PROFESSIONAL ENGINEER
S.D. MITCHELSON
100128064
01/17/2024
PROVINCE OF ONTARIO

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

The Ottawa Hospital | L'Hôpital d'Ottawa

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Project Number	10333982
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PRELIMINARY
NOT FOR CONSTRUCTION

Sheet Name
STAGE 3: HOSPITAL GRADING PLAN 2 OF 6

Sheet Number
C111

Project Status
STAGE 3

D07-12-22-0168

C:\pw_working\ontario\parsons_pr05468\dms47122\47441-103-GR01-6-PSOS.dwg Tuesday, January 16, 2024 12:53:12 PM

NOTES: GRADING

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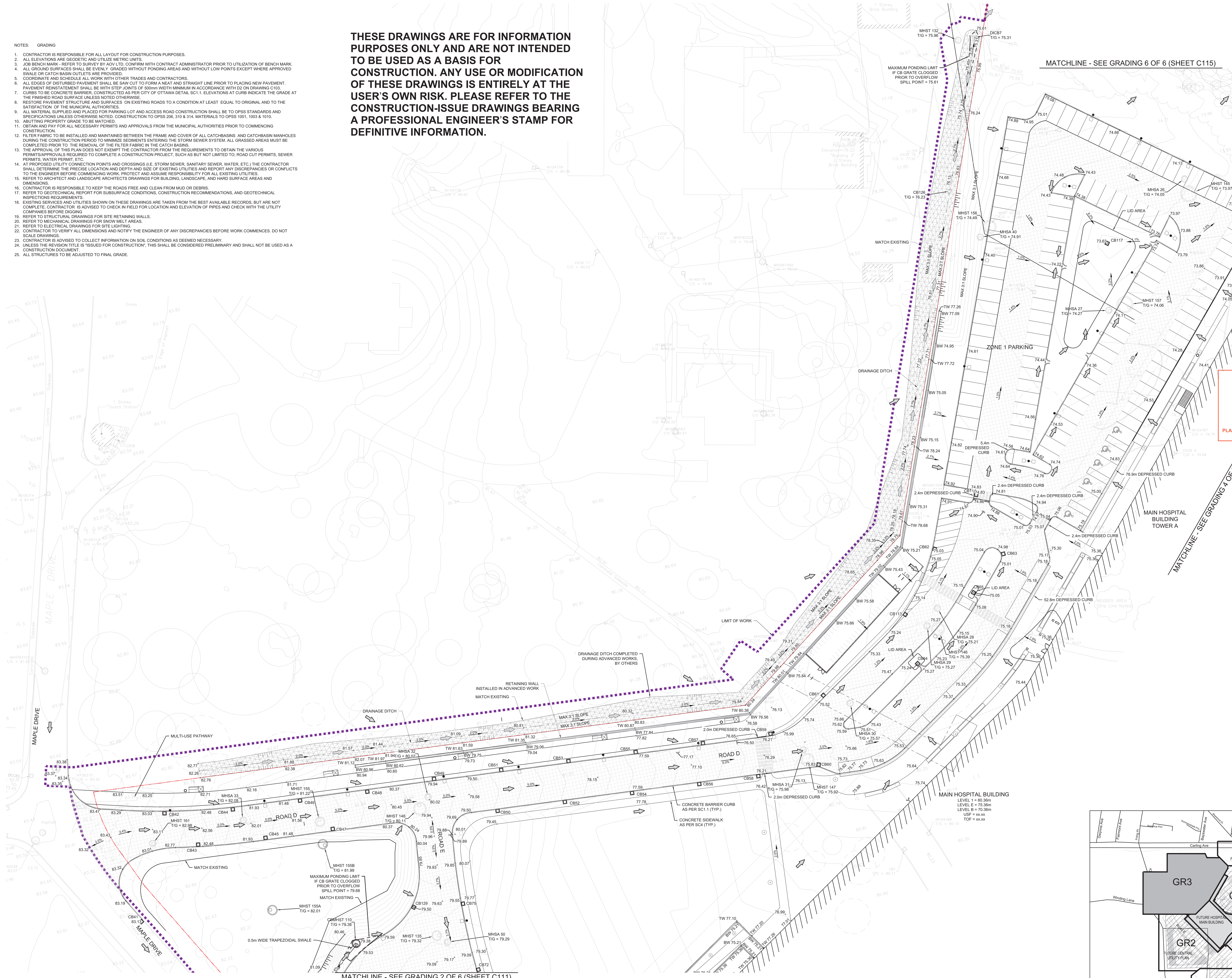

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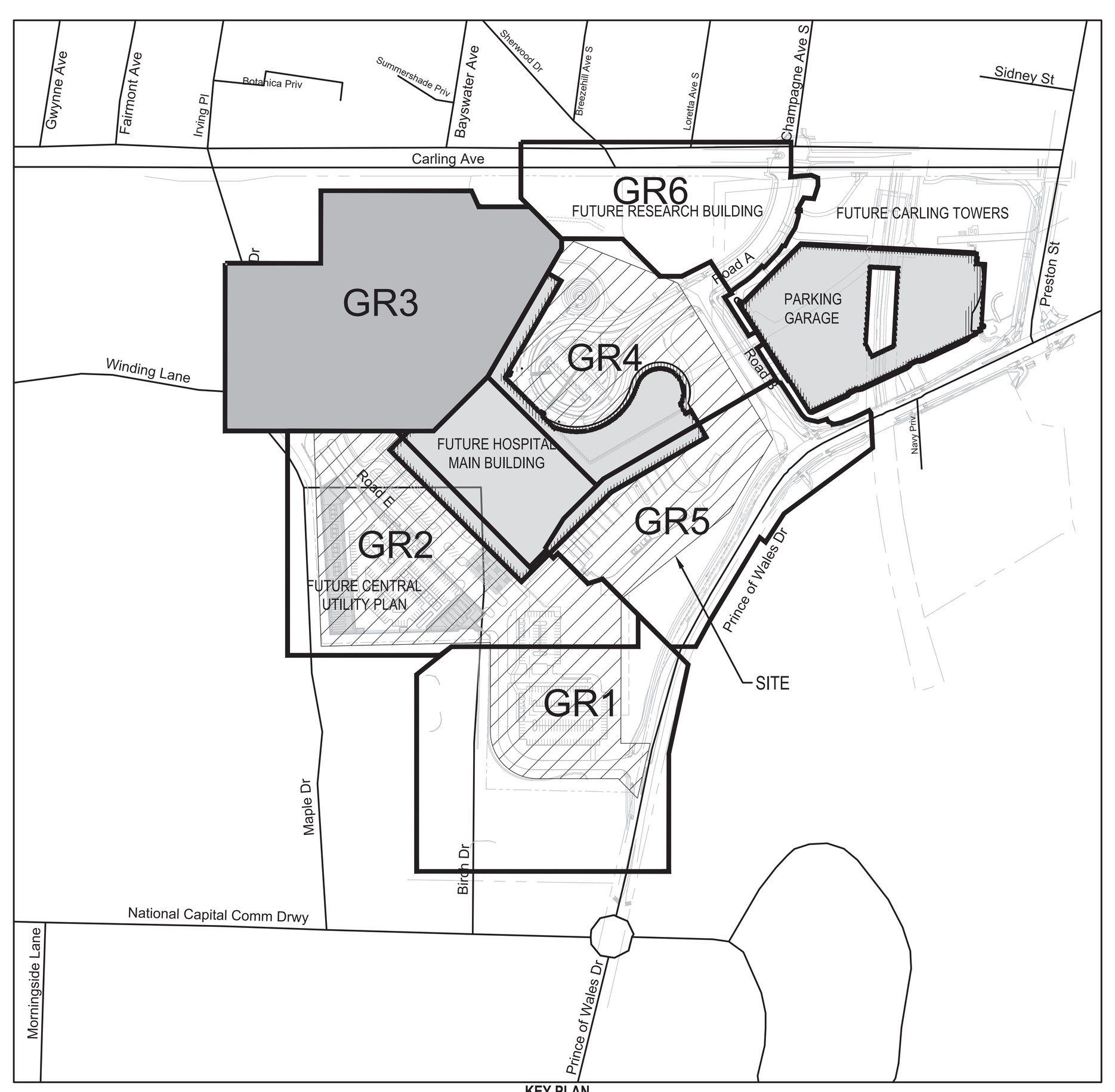
APPROVED
By Lily Xu at 11:47 am, May 22, 2024

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT, AND BUILDING SERVICES DEPARTMENT, CITY OF OTTAWA



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SCALE: 1:250

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PARSONS

LICENSED PROFESSIONAL ENGINEER
S.D.MITCHELSON
100128064
01/17/2024
PROVINCE OF ONTARIO

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Sheet Name
STAGE 3: HOSPITAL GRADING PLAN 3 OF 6

Sheet Number
C112

Project Status
STAGE 3

D07-12-22-0168

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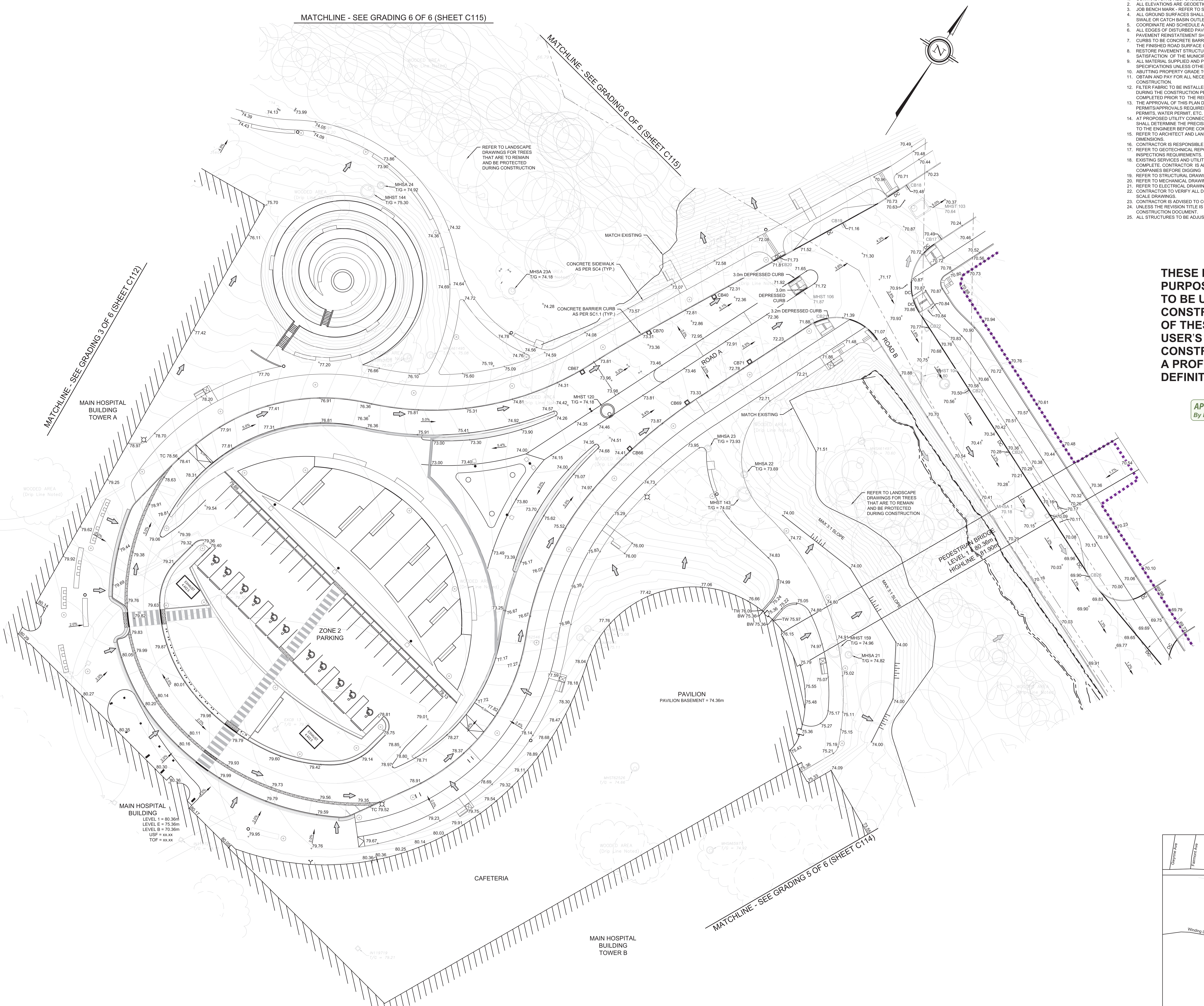

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By Lily Xu at 11:40 am, May 22, 2024

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT, AND BUILDING SERVICES DEPARTMENT, CITY OF OTTAWA

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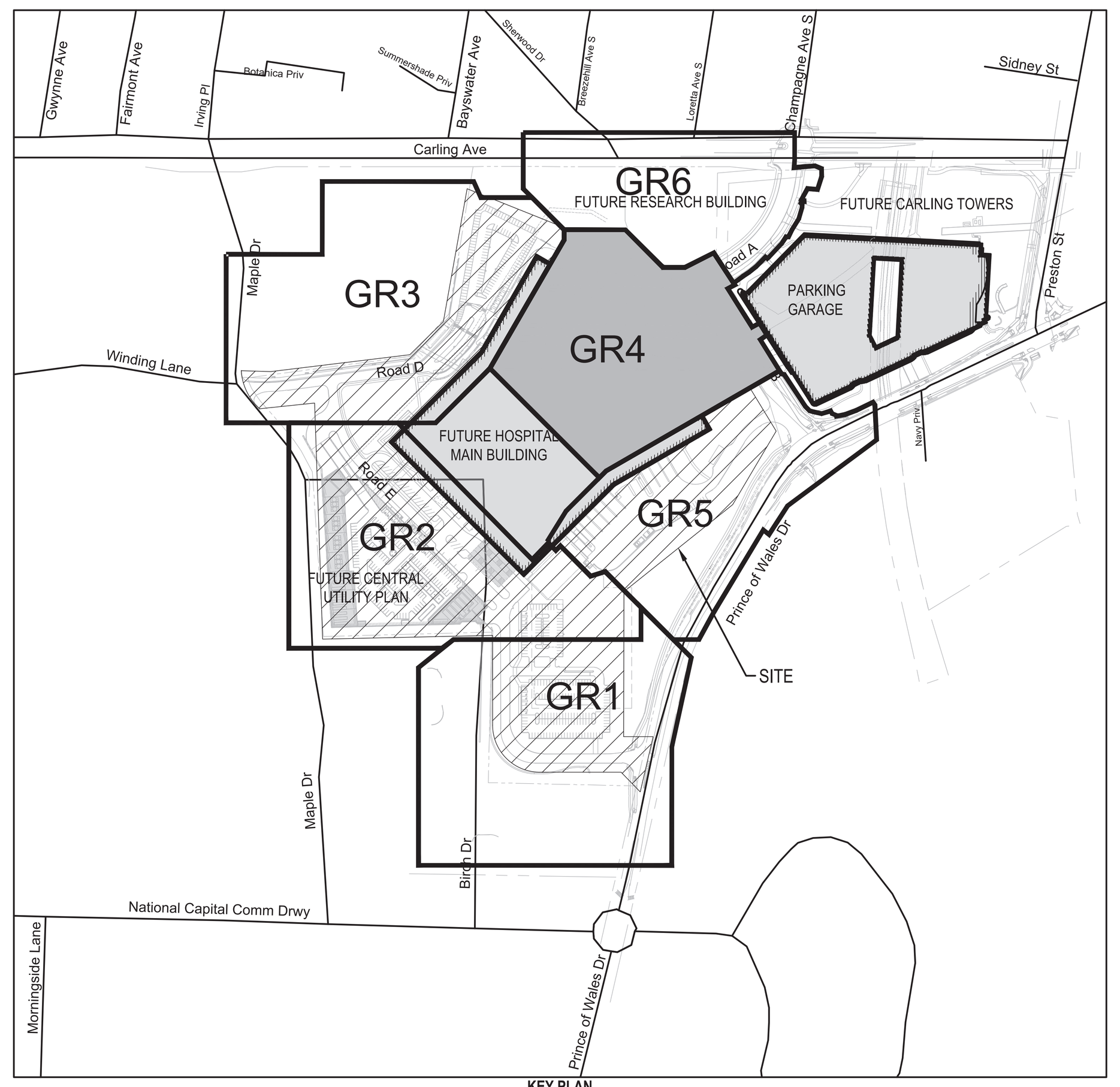

KEY PLAN

HDR

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PARSONS

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PROVINCE OF ONTARIO

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The Ottawa Hospital | L'Hôpital d'Ottawa

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STAGE 3: HOSPITAL GRADING PLAN 4 OF 6

Sheet Number
C113

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D07-12-22-0168

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7. CURBS TO BE CONCRETE BARRIER, CONSTRUCTED AS PER CITY OF OTTAWA DETAIL SC1.1. ELEVATIONS AT CURB INDICATE THE GRADE AT THE FINISHED ROAD SURFACE UNLESS NOTED OTHERWISE.
8. RESTORE PAVEMENT STRUCTURE AND SURFACES ON EXISTING ROADS TO A CONDITION AT LEAST EQUAL TO ORIGINAL AND TO THE SATISFACTION OF THE MUNICIPAL AUTHORITIES.
9. ALL MATERIAL SUPPLIED AND PLACED FOR PARKING LOT AND ACCESS ROAD CONSTRUCTION SHALL BE TO OPSS STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED. CONSTRUCTION TO OPSS 206, 310 & 314. MATERIALS TO OPSS 1001, 1003 & 1010.
10. ABUTTING PROPERTY GRADE TO BE MATCHED.
11. OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE MUNICIPAL AUTHORITIES PRIOR TO COMMENCING CONSTRUCTION.
12. FILTER FABRIC TO BE INSTALLED AND MAINTAINED BETWEEN THE FRAME AND COVER OF ALL CATCHBASINS AND CATCHBASIN MANHOLES DURING THE CONSTRUCTION PERIOD TO MINIMIZE SEDIMENTS ENTERING THE STORM SEWER SYSTEM. ALL GRASSED AREAS MUST BE COMPLETED PRIOR TO THE REMOVAL OF THE FILTER FABRIC IN THE CATCH BASINS.
13. THE APPROVAL OF THIS PLAN DOES NOT EXEMPT THE CONTRACTOR FROM THE REQUIREMENTS TO OBTAIN THE VARIOUS PERMITS/APPROVALS REQUIRED TO COMPLETE A CONSTRUCTION PROJECT, SUCH AS BUT NOT LIMITED TO; ROAD CUT PERMITS, SEWER PERMITS, WATER PERMIT, ETC.
14. AT PROPOSED UTILITY CONNECTION POINTS AND CROSSINGS (I.E. STORM SEWER, SANITARY SEWER, WATER, ETC.) THE CONTRACTOR SHALL DETERMINE THE PRECISE LOCATION AND DEPTH AND SIZE OF EXISTING UTILITIES AND REPORT ANY DISCREPANCIES OR CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES.
15. REFER TO ARCHITECT AND LANDSCAPE ARCHITECTS DRAWINGS FOR BUILDING, LANDSCAPE, AND HARD SURFACE AREAS AND DIMENSIONS.
16. CONTRACTOR IS RESPONSIBLE TO KEEP THE ROADS FREE AND CLEAN FROM MUD OR DEBRIS.
17. REFER TO GEOTECHNICAL REPORT FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTIONS REQUIREMENTS.
18. EXISTING SERVICES AND UTILITIES SHOWN ON THESE DRAWINGS ARE TAKEN FROM THE BEST AVAILABLE RECORDS, BUT ARE NOT COMPLETE. CONTRACTOR IS ADVISED TO CHECK IN FIELD FOR LOCATION AND ELEVATION OF PIPES AND CHECK WITH THE UTILITY COMPANIES BEFORE DIGGING
19. REFER TO STRUCTURAL DRAWINGS FOR SITE RETAINING WALLS.
20. REFER TO MECHANICAL DRAWINGS FOR SNOW MELT AREAS.
21. REFER TO ELECTRICAL DRAWINGS FOR SITE LIGHTING.
22. CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.
23. CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS AS DEEMED NECESSARY.
24. UNLESS THE REVISION TITLE IS "ISSUED FOR CONSTRUCTION", THIS SHALL BE CONSIDERED PRELIMINARY AND SHALL NOT BE USED AS A CONSTRUCTION DOCUMENT.
25. ALL STRUCTURES TO BE ADJUSTED TO FINAL GRADE.

APPROVED
By Lily Xu at 11:48 am, May 22, 2024

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT, AND BUILDING SERVICES DEPARTMENT, CITY OF OTTAWA

RECOMMENDED PAVEMENT STRUCTURE – PARKING AREAS	
THICKNESS(mm)	MATERIAL DESCRIPTION
50	SUPERPAVE 12.5mm SURFACE COURSE
150	S.P. F-3147 GRANULAR A BASE
400	S.P. F-3147 GRANULAR B TYPE II SUBBASE

RECOMMENDED PAVEMENT STRUCTURE – LOCAL ROUTES	
THICKNESS(mm)	MATERIAL DESCRIPTION
40	SUPERPAVE 12.5mm SURFACE COURSE
50	SUPERPAVE 19.0mm BINDER COURSE
150	S.P. F-3147 GRANULAR A BASE
400	S.P. F-3147 GRANULAR B TYPE II SUBBASE

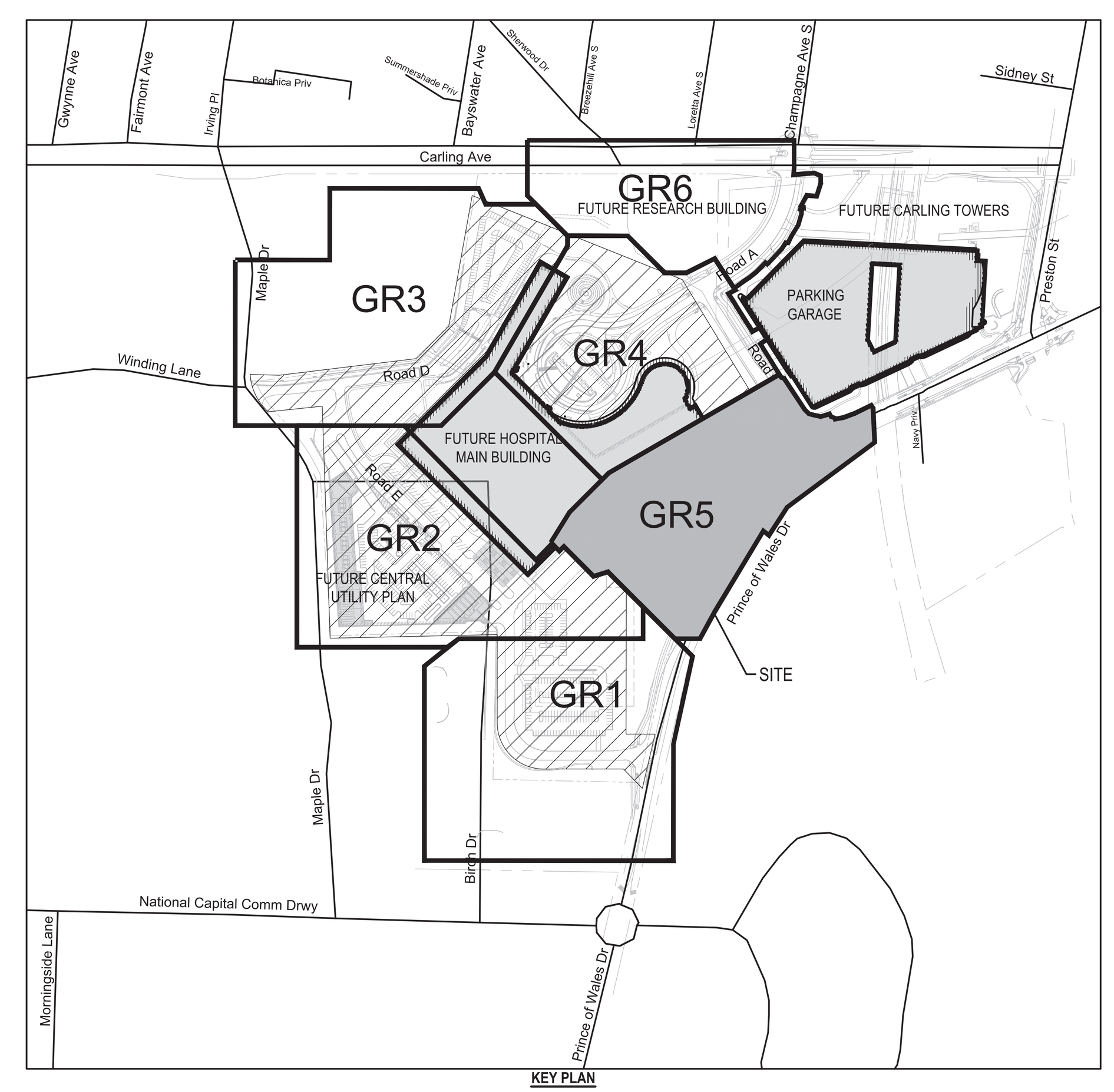
RECOMMENDED PAVEMENT STRUCTURE – COLLECTOR ROUTES	
THICKNESS(mm)	MATERIAL DESCRIPTION
50	SUPERPAVE 12.5mm FC1 SURFACE COURSE
70	SUPERPAVE 19.0mm BINDER COURSE
150	S.P. F-3147 GRANULAR A BASE
400	S.P. F-3147 GRANULAR B TYPE II SUBBASE

RECOMMENDED PAVEMENT STRUCTURE – RIGID PAVEMENT	
THICKNESS(mm)	MATERIAL DESCRIPTION
200	PORTLAND CEMENT CONCRETE
150	S.P. F-3147 GRANULAR A BASE
400	S.P. F-3147 GRANULAR B TYPE II SUBBASE

LEGEND:

- FACILITY LEASE BOUNDARY
- EXISTING PROPERTY LINE
- LIMIT OF WORK
- ADVANCED WORKS PHASE
- PROPOSED OFFSITE ROADWAY WORKS TO BE REVIEWED AND APPROVED THROUGH RMA PROCESS UNDER SEPARATE DRAWING PACKAGE
- EXISTING CONCRETE CURB
- PROPOSED CONCRETE CURB
- DC — PROPOSED DEPRESSED CURB
- PROPOSED BUILDING OR STRUCTURE
- EXISTING VALVE CHAMBER
- EXISTING VALVE & VALVE BOX
- EXISTING FIRE HYDRANT
- PROPOSED VALVE CHAMBER
- PROPOSED VALVE & VALVE BOX
- PROPOSED FIRE HYDRANT
- EXISTING SANITARY MANHOLE
- PROPOSED SANITARY MANHOLE
- EXISTING STORM MANHOLE
- PROPOSED STORM MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED TRENCH DRAIN
- 113.45 — EXISTING GRADE
- 114.40 — PROPOSED GRADE
- BW 114.40 — PROPOSED GROUND GRADE AT BOTTOM OF WALL
- TW 114.40 — PROPOSED GROUND GRADE AT TOP OF WALL
- TC 114.40 — PROPOSED TOP OF CURB GRADE
- PROPOSED RETAINING WALL
- PROPOSED DITCH
- PROPOSED TERRACING (MAX 3:1 SLOPE)
- PROPOSED TWSI AS PER SC7.3
- FIRE ROUTE (COLLECTOR ROUTE PAVEMENT)
- PROPOSED LIGHT STANDARD (BY OTHERS)
- PROPOSED BOLLARD (BY OTHERS)
- MAJOR OVERLAND FLOW ROUTE
- EXISTING TREE AND CRITICAL ROOT ZONE
- WOODED AREA DRIPLINE

THESE DRAWINGS ARE FOR INFORMATION PURPOSES ONLY AND ARE NOT INTENDED TO BE USED AS A BASIS FOR CONSTRUCTION. ANY USE OR MODIFICATION OF THESE DRAWINGS IS ENTIRELY AT THE USER'S OWN RISK. PLEASE REFER TO THE CONSTRUCTION-ISSUE DRAWINGS BEARING A PROFESSIONAL ENGINEER'S STAMP FOR DEFINITIVE INFORMATION.



HDR Architecture Associates Inc.
300 Richmond Road, Suite 200
Ottawa, Ontario K1Z 6X6

PARSONS

LICENSED PROFESSIONAL ENGINEER
S.D. MITCHELSON
100128064
01/17/2024
PROVINCE OF ONTARIO

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

The Ottawa Hospital | L'Hôpital d'Ottawa

Architect	HDR
Landscape Architect	HDR
Civil Engineer	Parsons
Structural Engineer	EXP
Mechanical Engineer	Smith + Andersen
Electrical Engineer	Smith + Andersen
Plumbing Engineer	Smith + Andersen
Interior Designer	HDR
Equipment Planner	Colliers
Wayfinding	
Sheet Reviewer	Author

MARK	DATE	DESCRIPTION
01	2022-09-23	ISSUED FOR PRE-CONSULTATION
02	2022-10-28	DRAFT FOR 90% SD
03	2022-11-30	ISSUED FOR SPC & FLUDA - 1ST SUBMISSION
04	2022-12-02	ISSUED FOR 3A1-2
05	2023-02-24	ISSUED FOR RFP VERSION 1.0
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09	2023-09-29	ISSUED FOR REVIEW AND COSTING
10	2023-10-27	ISSUED FOR MOH 3A.3
11	2024-01-17	ISSUED FOR DELEGATED AUTHORITY REPORT

Project Number 10333982
Original Issue 02/21/23

PRELIMINARY NOT FOR CONSTRUCTION

Sheet Name

STAGE 3: HOSPITAL GRADING PLAN 5 OF 6

Sheet Number

C114

Project Status

STAGE 3

D07-12-22-0168

HDR

HDR Architecture Associates Inc.
300 Richmond Road, Suite 200
Ottawa, Ontario K1Z 6X6

PARSONS

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

The Ottawa Hospital | L'Hôpital d'Ottawa

LEGEND:

- FACILITY LEASE BOUNDARY
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NOTES: GRADING

1. CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.
2. ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
3. JOB BENCH MARK - REFER TO SURVEY BY AOV LTD. CONFIRM WITH CONTRACT ADMINISTRATOR PRIOR TO UTILIZATION OF BENCH MARK.
4. ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND WITHOUT LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
5. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
6. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT. PAVEMENT REINSTATEMENT SHALL BE WITH STEP JOINTS OF 500mm WIDTH MINIMUM IN ACCORDANCE WITH D2 ON DRAWING C103.
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THICKNESS(mm)	MATERIAL DESCRIPTION
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150	S.P. F-3147 GRANULAR A BASE
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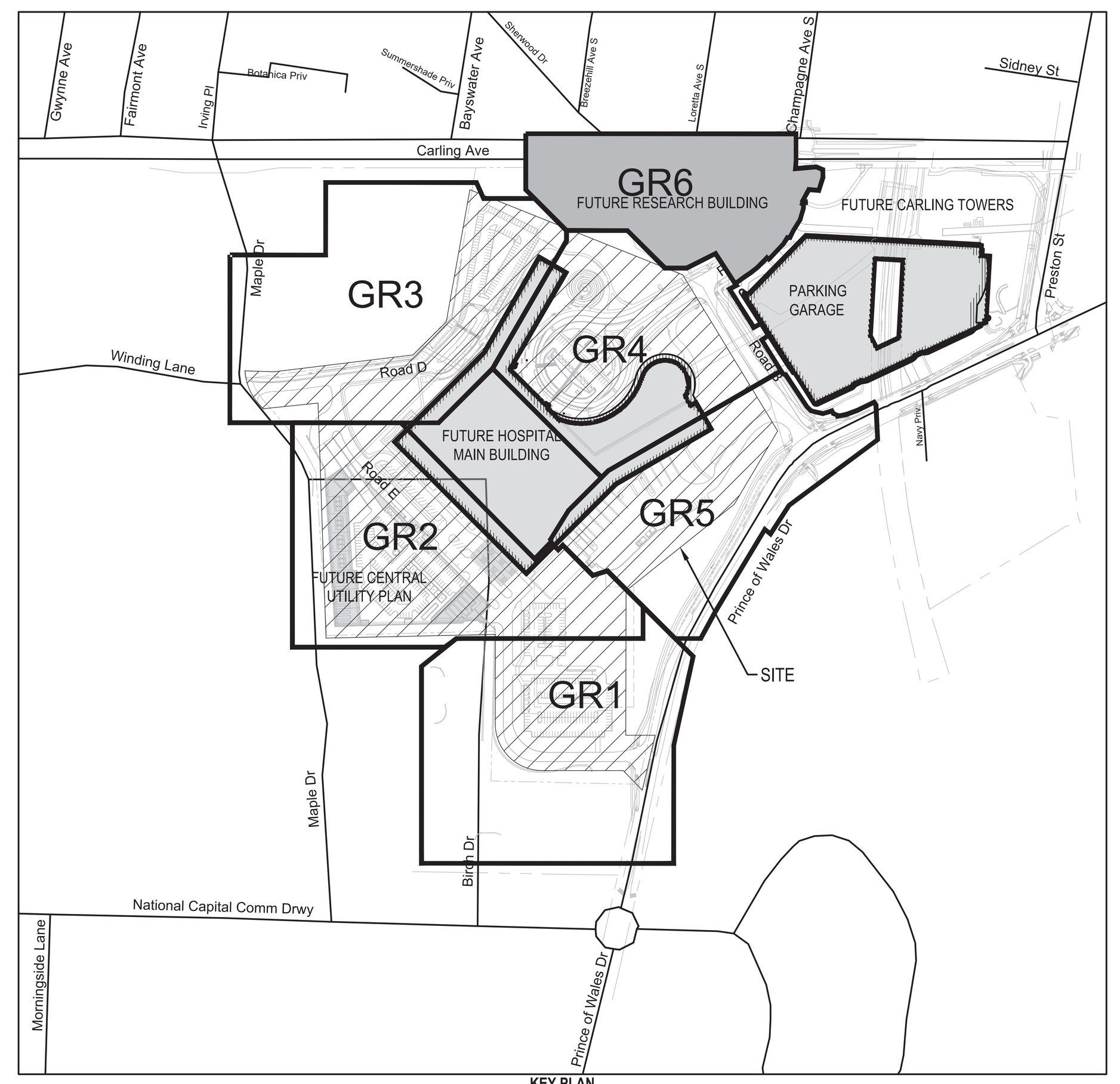
5m 0 5 10m
SCALE: 1:250



KEY PLAN

Architect	HDR
Landscape Architect	HDR
Civil Engineer	Parsons
Structural Engineer	EXP
Mechanical Engineer	Smith + Andersen
Electrical Engineer	Smith + Andersen
Plumbing Engineer	Smith + Andersen
Interior Designer	HDR
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Project Number: 10333982
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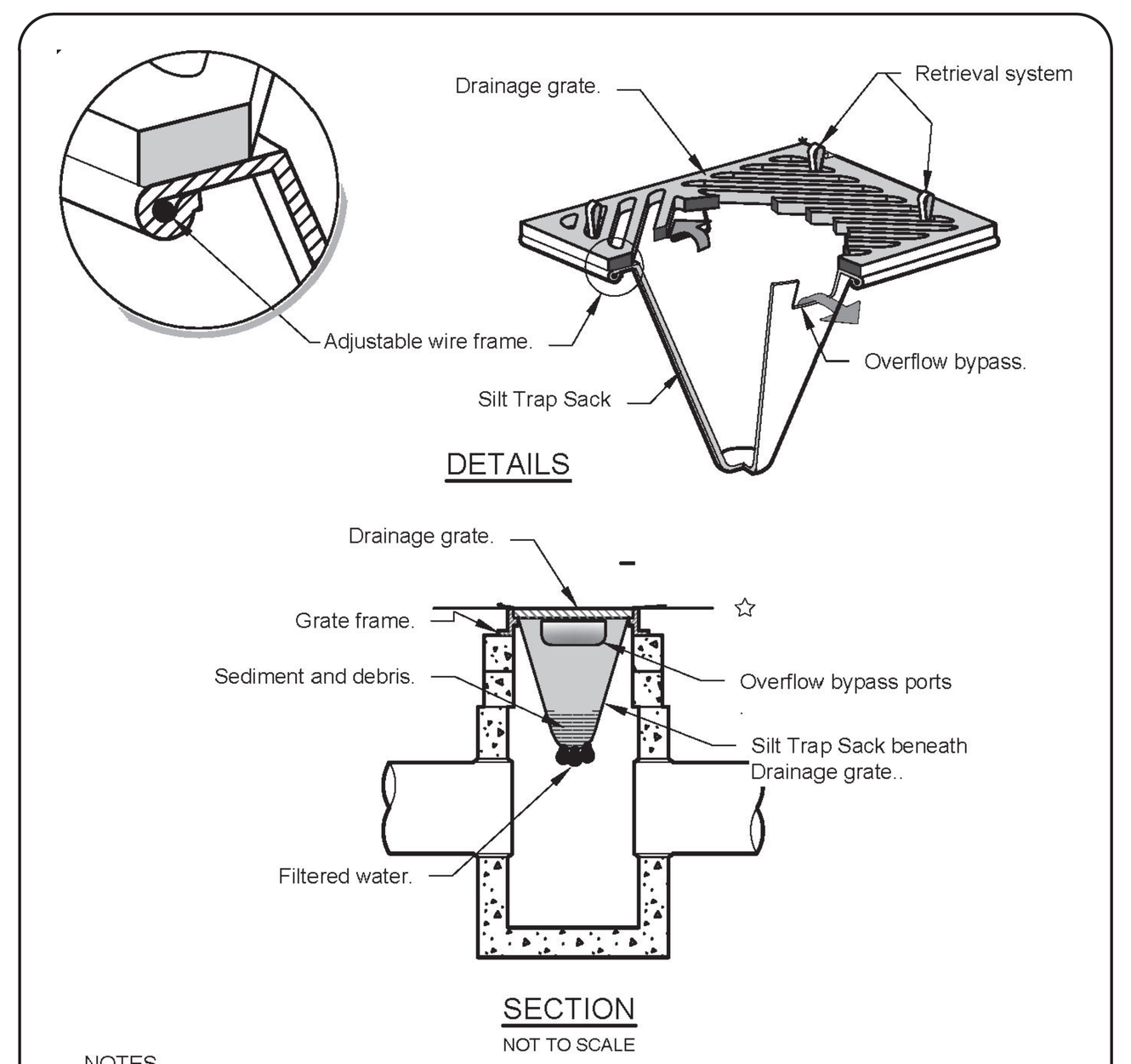
PRELIMINARY NOT FOR CONSTRUCTION

Sheet Name
STAGE 3: HOSPITAL GRADING PLAN 6 OF 6

Sheet Number
C115

Project Status
STAGE 3

D07-12-22-0168



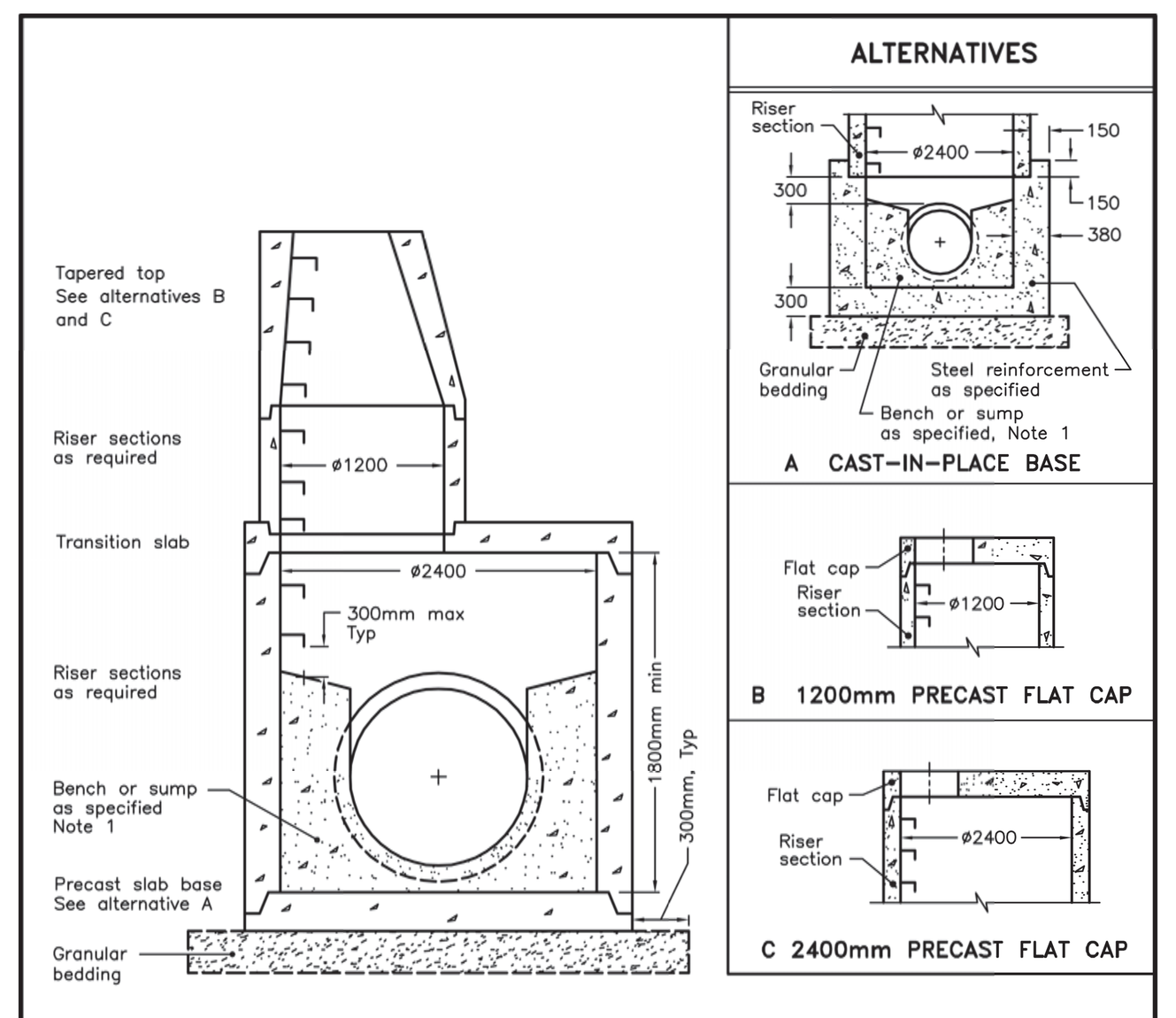
NOTES

1. Size and shape of the silt trap sack to fit the storm structure it will service. (rectangular or round).
2. The silt trap sack shall have a built-in high-flow relief system (overflow bypass).
3. The silt trap sack assembly must allow removal without spilling the collected material.
4. Empty silt trap sack and dispose of sediment and debris before the sack is half-full.
5. Ensure the silt trap sack assembly does not spill or fall into the storm structure. If sediment is spilled into the storm structure, remove the spilled material by suction hose or other approved method.
6. Provide protection for catch basin hoods (Wattles, 2x4 lumber, and so forth)

SILT SACK DETAIL

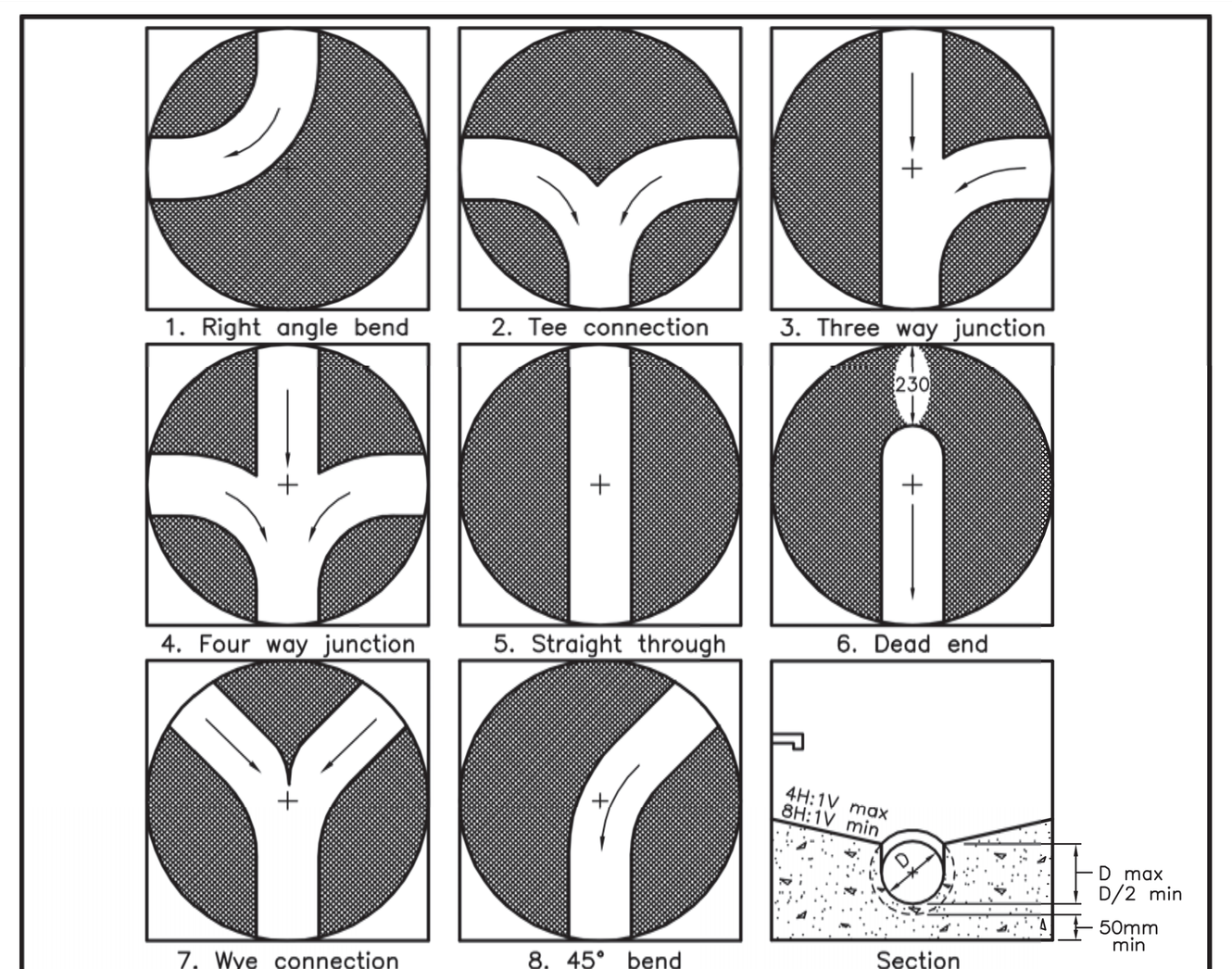
PARSONS

D1



NOTES:
1 For sump detail, see OPSD 701.010.
A Granular backfill shall be placed to a minimum thickness of 300mm all around the maintenance hole.
B Precast concrete components shall be according to OPSD 701.030, 701.031, 701.060, 701.061, 703.013, 703.023, 706.030 and 706.031.
C Structures exceeding 5.0m in depth shall include safety platform according to OPSD 404.020.
D Pipe support shall be according to OPSD 708.020.
E For benching and pipe opening details, see OPSD 701.021.
F For adjustment unit and frame installation, see OPSD 704.010.
G All dimensions are nominal.
H All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2014 | Rev 5
PRECAST CONCRETE MAINTENANCE HOLE 2400mm DIAMETER
OPSD 701.013



MAXIMUM SIZE HOLE IN THE WALL IN PRECAST RISER SECTIONS

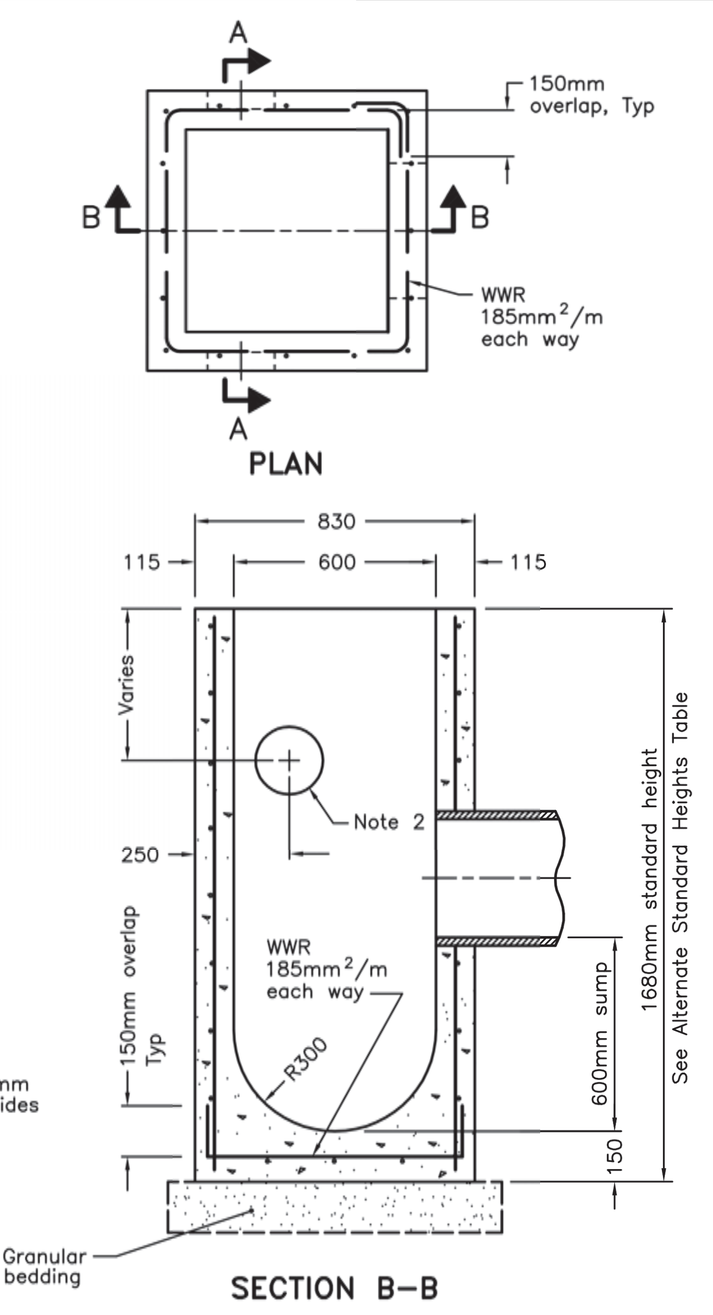
Maintenance Hole Diameter	No. 1–4	No. 5 and 6	No. 8	No.7 Inlet Hole	No.7 Outlet Hole
1200	700	860	780	700	860
1500	860	1220	960	860	1170
1800	1220	1485	1220	1220	1485
2400	1485	2020	1760	1485	2020
3000	1930	2450	2300	1930	2450
3600	2470	3085	2730	2470	3085

NOTES:
1 Slopes shall be maintained from the outlet hole opening for top of benching.
A Concrete for benching shall be 30MPa.
B When benching is hand-finshed, it shall be given wood float finish, channel shall be given steel trowel finish.
C Benching slope and height shall be as specified.
D When specified, maintenance holes that are 1200mm in diameter with a uniform channel for 200 or 250mm pipe may be prebenched at the manufacturer with standardized benching slope and channel orientation.
E All dimensions are nominal.
F All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2014 | Rev 4
MAINTENANCE HOLE BENCHING AND PIPE OPENING ALTERNATIVES
OPSD 701.021

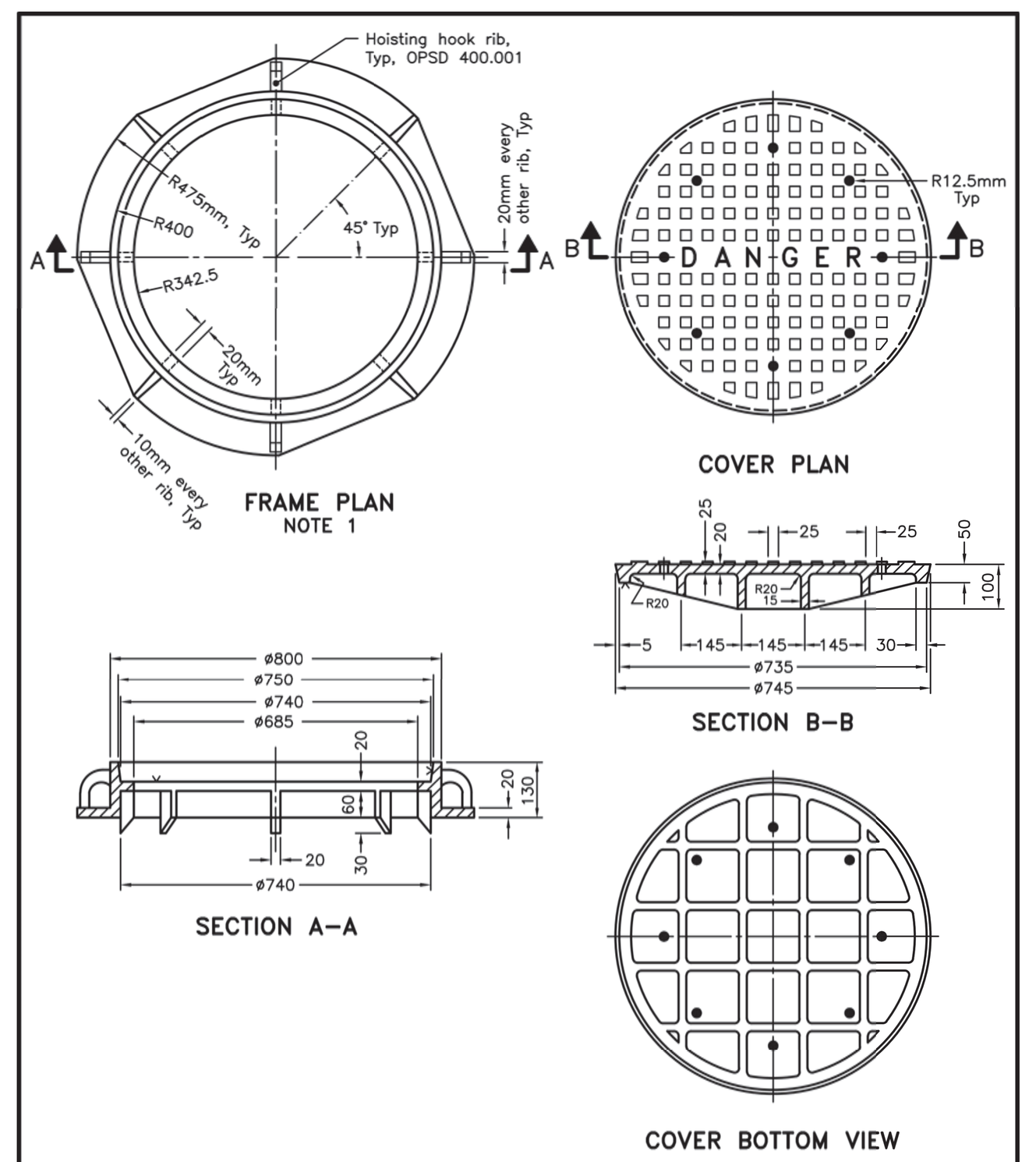
ALTERNATE STANDARD HEIGHTS

ALTERNATIVE	DIMENSION
A	1980
B	1830
C	1520
D	1380



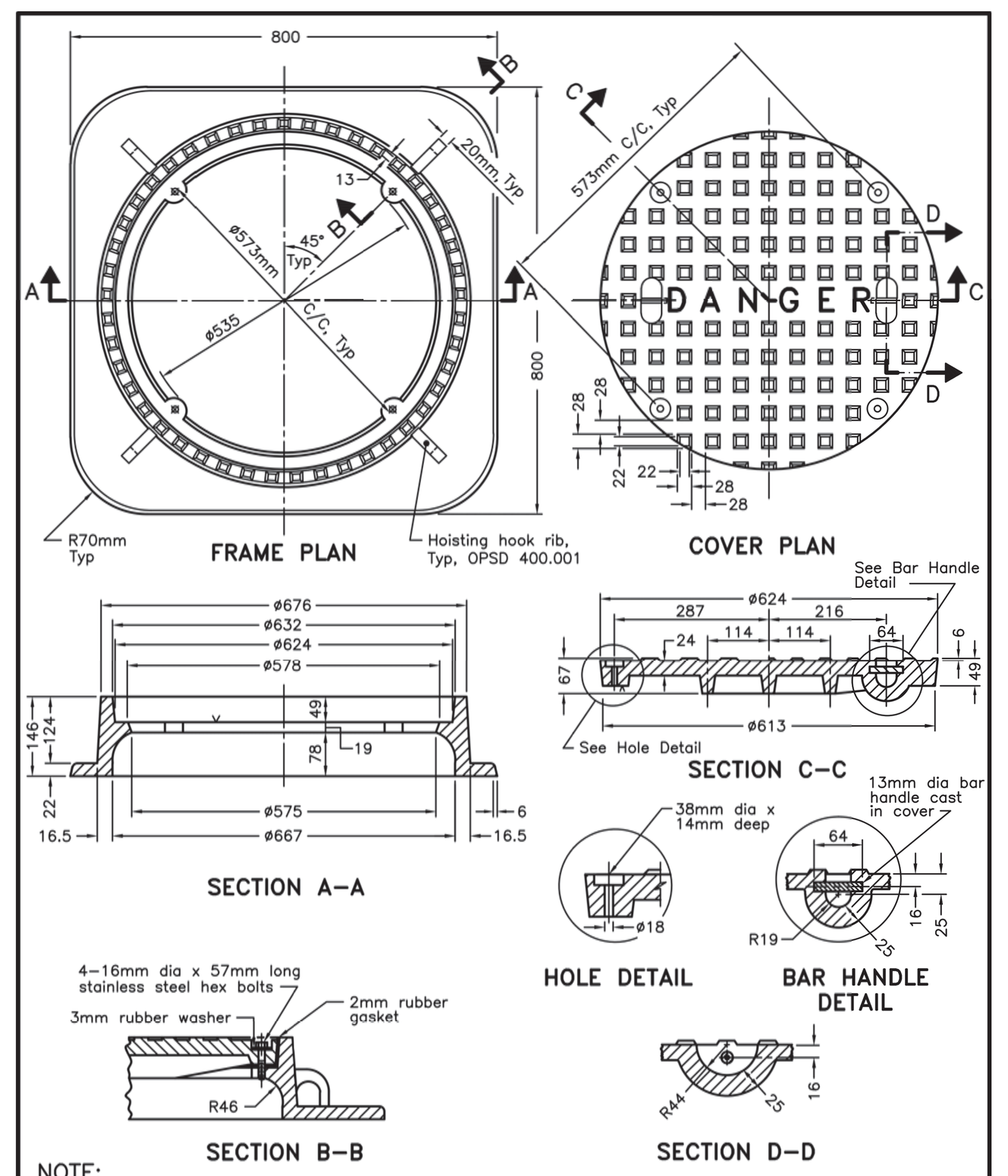
NOTES:
1 Outlet hole size 525mm diameter maximum, location as required.
2 200mm diameter knockout to accommodate subdrain. Knockout shall be 60mm deep.
A Centre reinforcing in base slab and walls ±20mm.
B Granular backfill shall be placed to a minimum thickness of 300mm all around the catch basin.
C Frame, grate, and adjustment units shall be installed according to OPSD 704.010.
D Pipe support shall be according to OPSD 708.020.
E All dimensions are nominal.
F All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2019 | Rev 4
PRECAST CONCRETE CATCH BASIN 600x600mm
OPSD 705.010



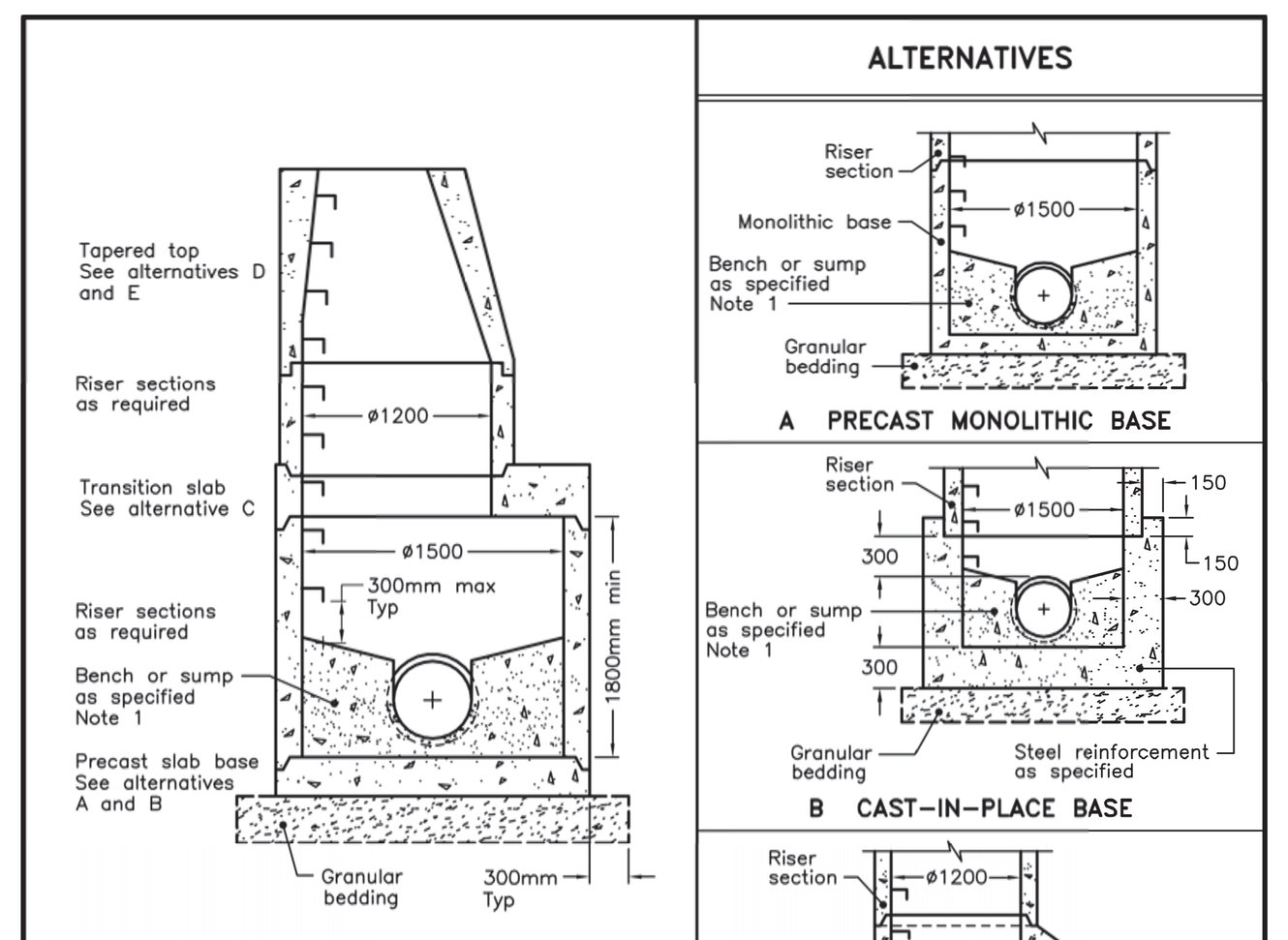
NOTE:
1 As an option, frame may be completely round.
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2018 | Rev 4
CAST IRON, CIRCULAR FRAME WITH CIRCULAR 745mm COVER FOR MAINTENANCE HOLES
OPSD 401.020



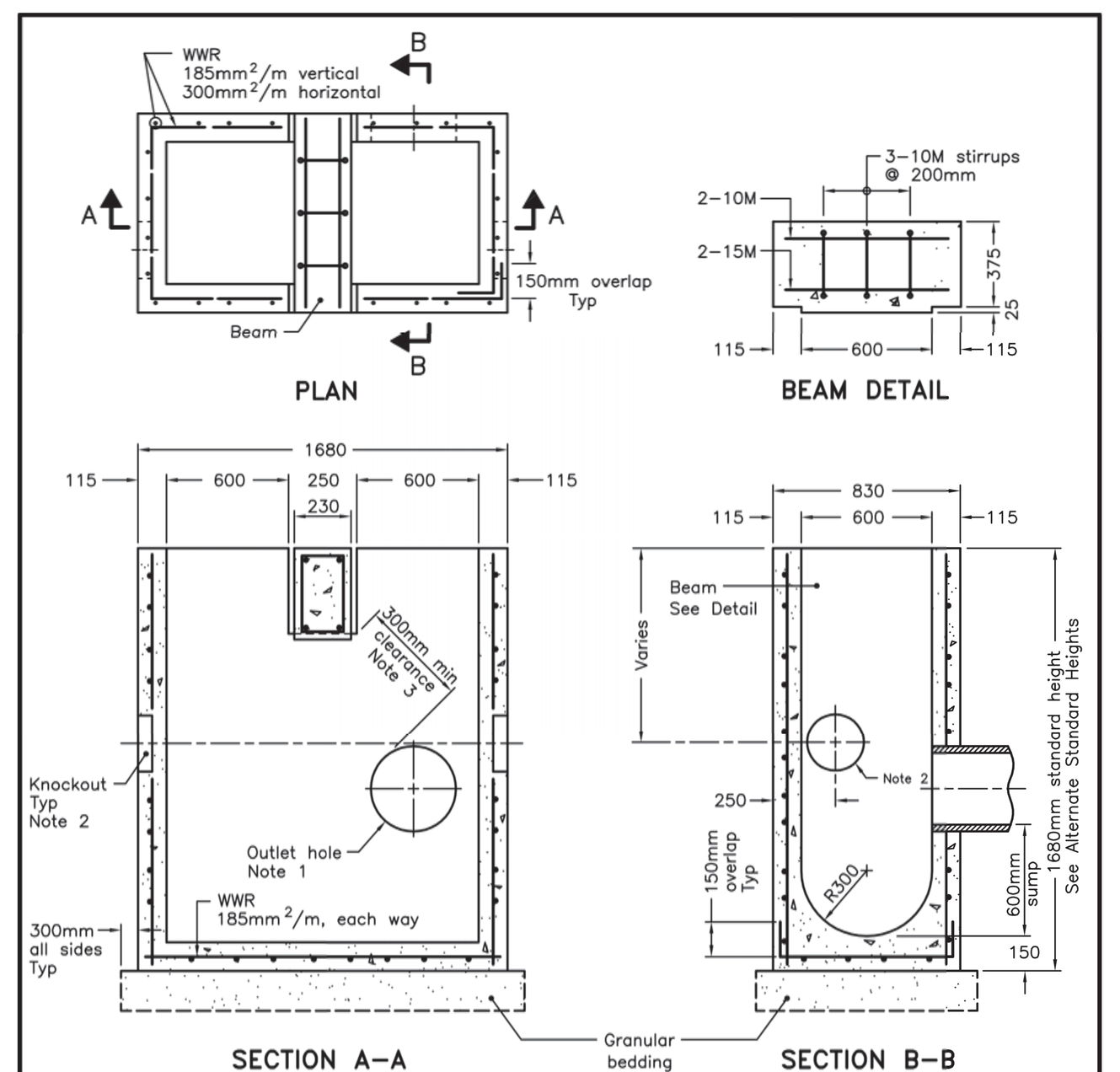
NOTE:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2018 | Rev 4
CAST IRON, SQUARE FRAME WITH CIRCULAR WATERTIGHT COVER FOR MAINTENANCE HOLES
OPSD 401.030



NOTES:
1 For sump detail, see OPSD 701.010.
A Granular backfill shall be placed to a minimum thickness of 300mm all around the maintenance hole.
B Precast concrete components shall be according to OPSD 701.030, 701.031, 701.040, 701.041, 703.011, 703.021, and 706.010.
C Structures exceeding 5.0m in depth shall include safety platform according to OPSD 404.020 or 404.021.
D Pipe support shall be according to OPSD 708.020.
E For benching and pipe opening details, see OPSD 701.021.
F For adjustment unit and frame installation, see OPSD 704.010.
G All dimensions are nominal.
H All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2014 | Rev 5
PRECAST CONCRETE MAINTENANCE HOLE 1500mm DIAMETER
OPSD 701.011



NOTES:
1 Outlet hole size 525mm diameter maximum, location as required.
2 200mm diameter knockout to accommodate subdrain. Knockout shall be 60mm deep.
3 Minimum clearance between beam recess and hole for pipe shall be 300mm or minimum clearance can be 150mm with addition of two 15M size rebar on 45 degree diagonal.
A Centre reinforcing in base slab and walls ±20mm.
B Granular backfill shall be placed to a minimum thickness of 300mm all around the catch basin.
C Frame, grate, and adjustment units shall be installed according to OPSD 704.010.
D Pipe support shall be according to OPSD 708.020.
E All dimensions are nominal.
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ALTERNATE STANDARD HEIGHTS

ALTERNATIVE	DIMENSION
A	1980
B	1830
C	1680

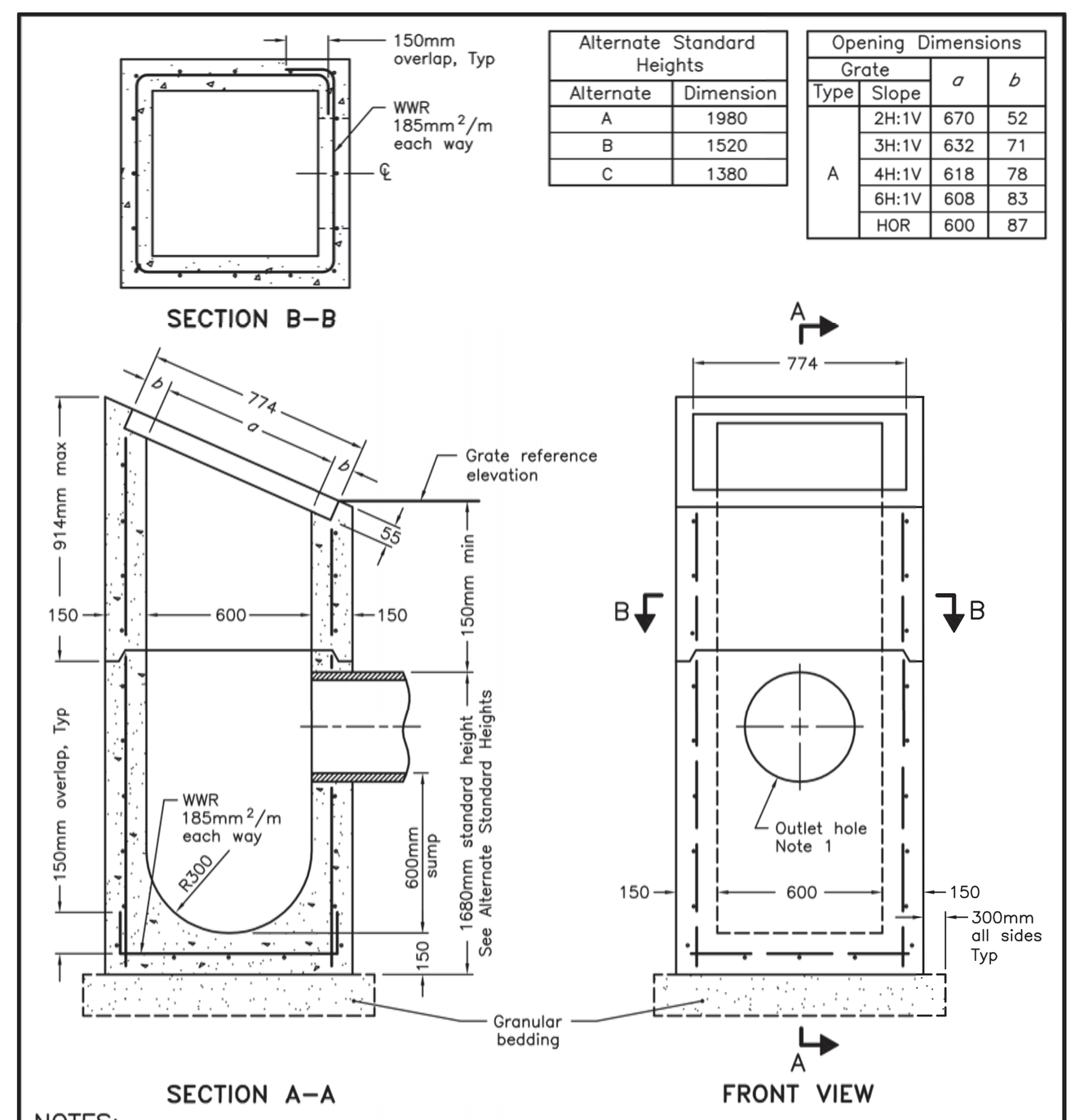
ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2019 | Rev 4
PRECAST CONCRETE TWIN INLET CATCH BASIN 600 x 1450mm
OPSD 705.020

Alternate Standard Heights

Alternate	Dimension
A	1980
B	1520
C	1380

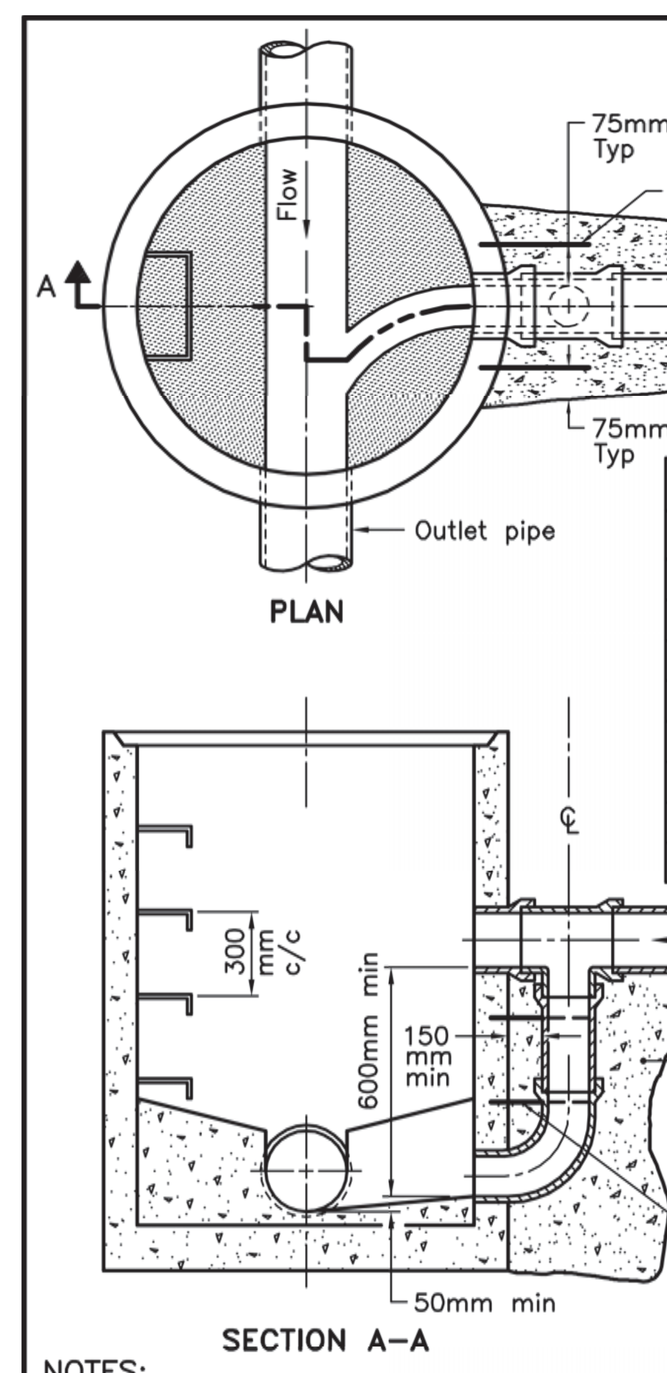
Opening Dimensions

Grate Type	Slope	a	b
A	2H:1V	670	52
	3H:1V	632	71
	4H:1V	618	78
	6H:1V	608	83
	HOR	600	87



NOTES:
1 Outlet hole size 525mm maximum diameter, location as required.
A Where inlet is placed across ditch and is accessible to vehicular traffic, grating slope shall be 6H:1V or flatter.
B Center reinforcing in wall and slab ±25mm.
C Granular backfill shall be placed to a minimum thickness of 300mm all around the ditch inlet.
D Grating shall be according to OPSD 403.010.
E Pipe support shall be according to OPSD 708.020.
F All dimensions are nominal.
G All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2019 | Rev 4
PRECAST CONCRETE DITCH INLET 600 x 600mm
OPSD 705.030

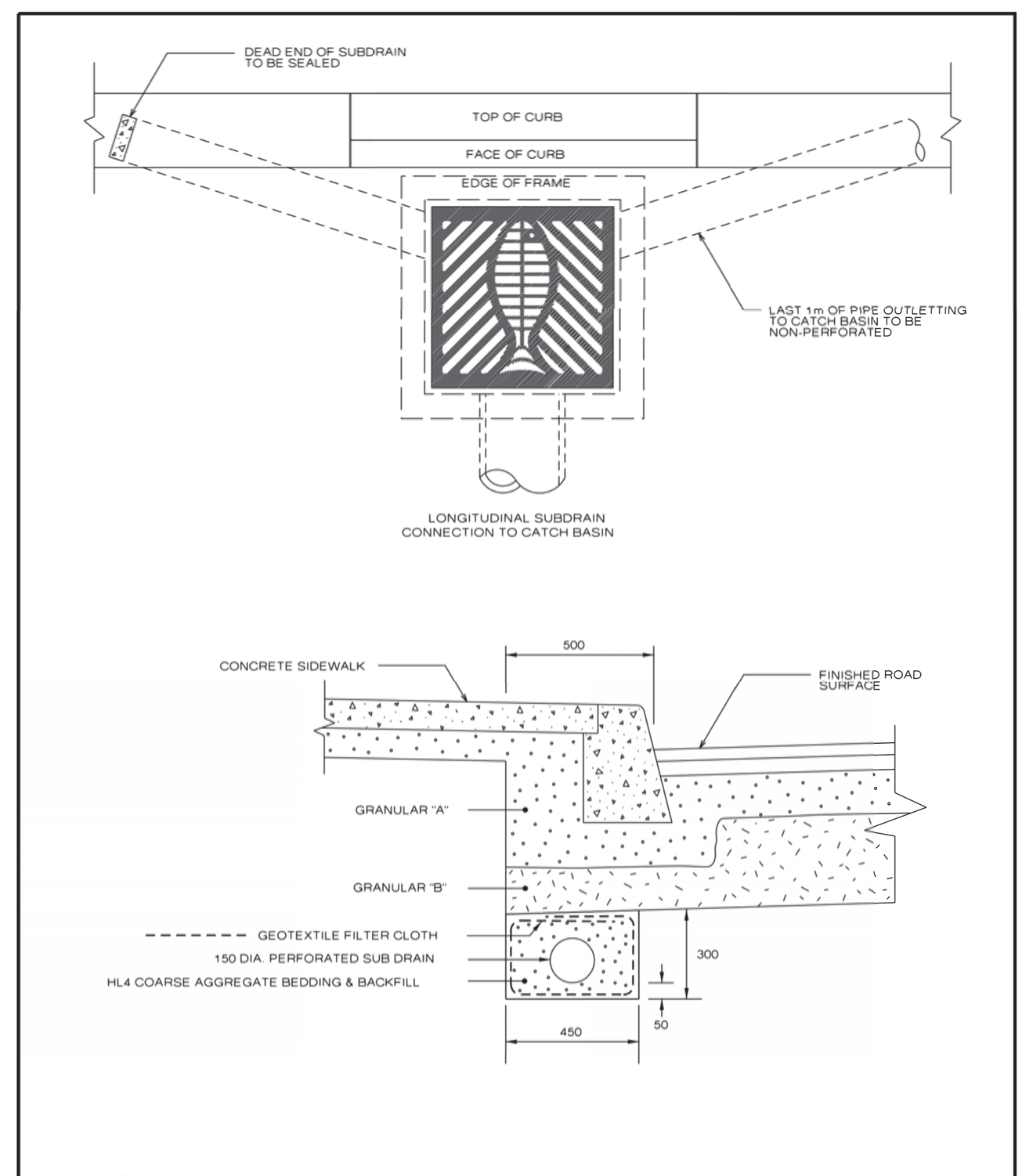


SIZE OF DROP PIPE

SEWER ID	DROP PIPE ID	APPLICATION
200	200	Storm and Sanitary
250	200	Storm and Sanitary
300	250	Storm and Sanitary
375	300	Storm and Sanitary
450	375	Storm
525	450	Storm
600	525	Storm
675	600	Storm

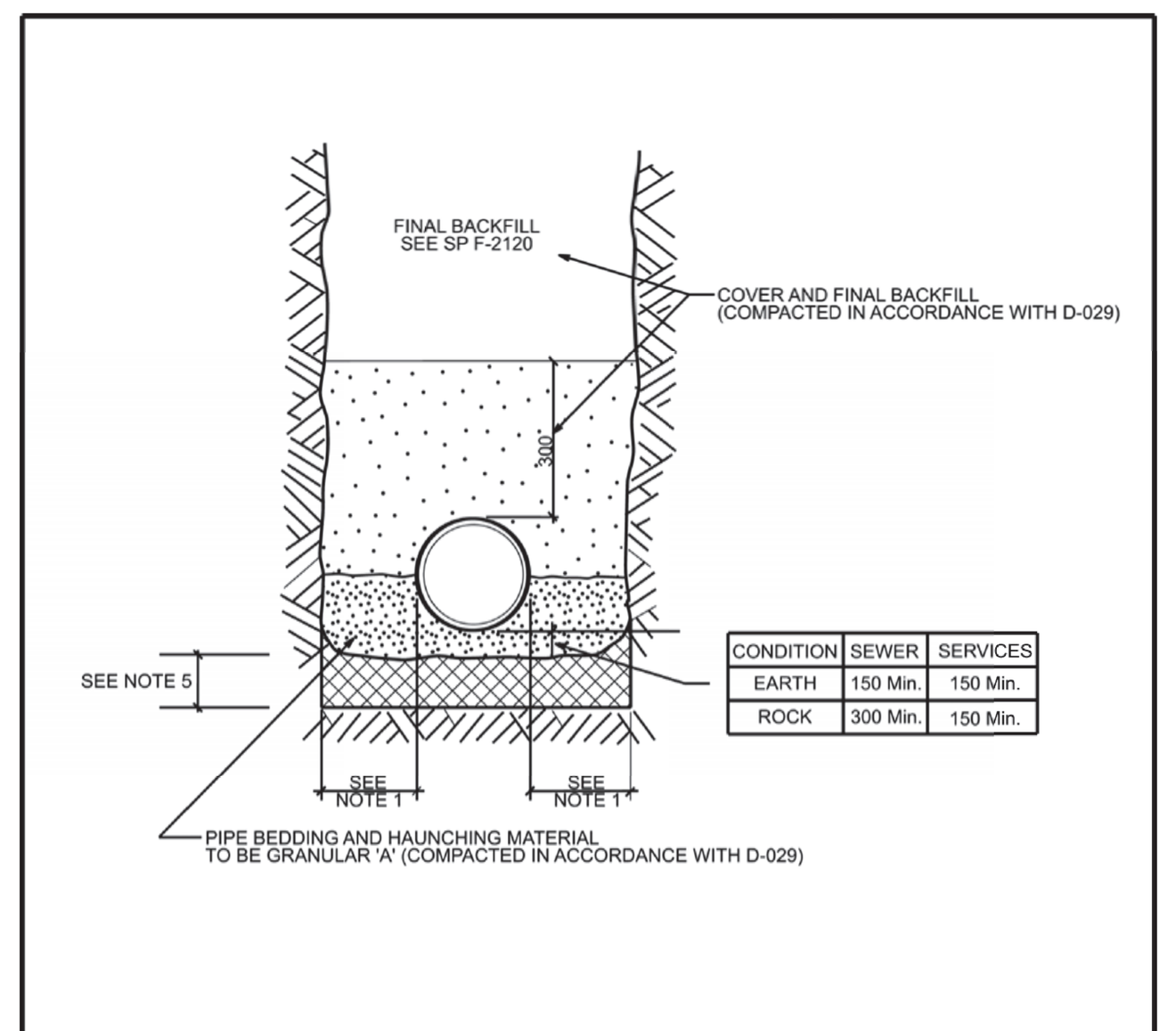
NOTES:
1 Concrete shall be placed to undisturbed ground and the outside face of the maintenance hole, but there shall be a minimum of 150mm of 15MPa concrete around the drop pipe.
2 Concrete shall be secured to the maintenance hole with 450mm long, 13mm diameter threaded rods and drilled expansion anchors down either side of the drop pipe at 300mm centres.
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2016 | Rev 3
CAST-IN-PLACE MAINTENANCE HOLE DROP STRUCTURE TEE
OPSD 1003.010



NOTES:
1. ALL CONECTIONS TO BE MADE ON BOTH SIDES OF THE CATCH BASIN AND TO BE MORTARED AT THE INSIDE AND OUTSIDE OF THE CATCH BASIN WALLS. THE SUBDRAIN SHALL BE PLUGGED WITH A MANUFACTURED PLUG AT THE HIGH POINT WHERE THERE IS NO CATCH BASIN.
2. APPROVED NON-WOVEN CLASS 1 GEOTEXTILE AS PER MS-22.15.
3. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
4. ALL SUBDRAIN TO PROVIDE POSITIVE DRAINAGE.

Ottawa | SUBDRAIN INSTALLATION DETAIL | DATE: MAY 2001 | REV DATE: MARCH 2009 | DWG No.: R1



CONDITION	SEWER	SERVICES
EARTH	150 Min.	150 Min.
ROCK	300 Min.	150 Min.

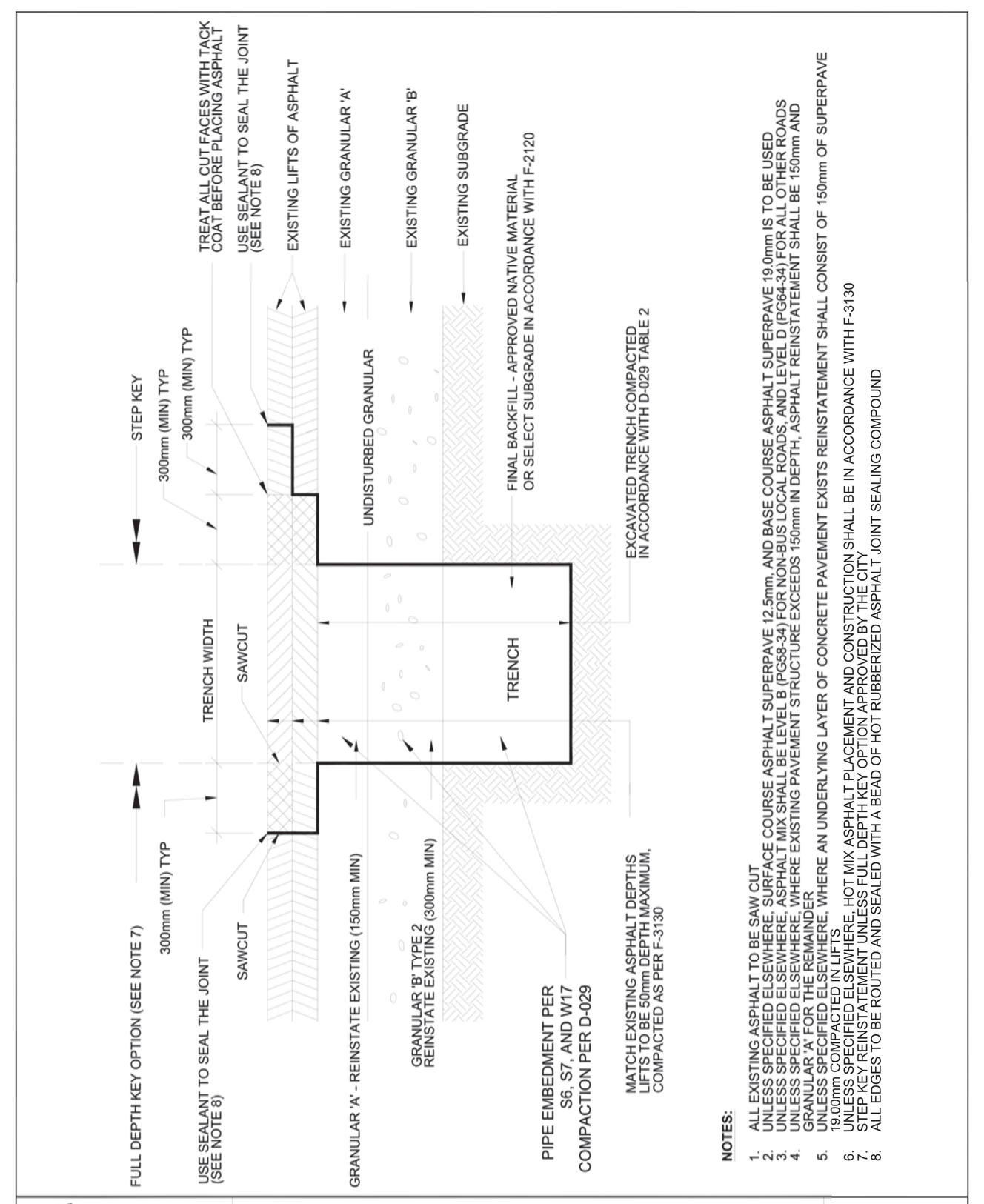
NOTES:
1.

PIPE INSIDE DIAMETER (mm)	CLEARANCE (mm)
900 OR LESS	CONC 450 PVC 450
OVER 900	500

2. FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-2120.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
4. INITIAL BACKFILL MATERIAL
- CONCRETE PIPE - GRANULAR 'A', GRANULAR 'B', OR SELECT SUBGRADE MATERIAL WITH 100% PASSING THE 37.5 mm SIEVE
- PVC PIPE - GRANULAR 'A'
5. WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOILS SHALL BE EXCAVATED TO CREATE A FOUNDATION THAT SHALL BE FILLED TO THE BOTTOM OF THE BEDDING WITH GRANULAR 'B'.

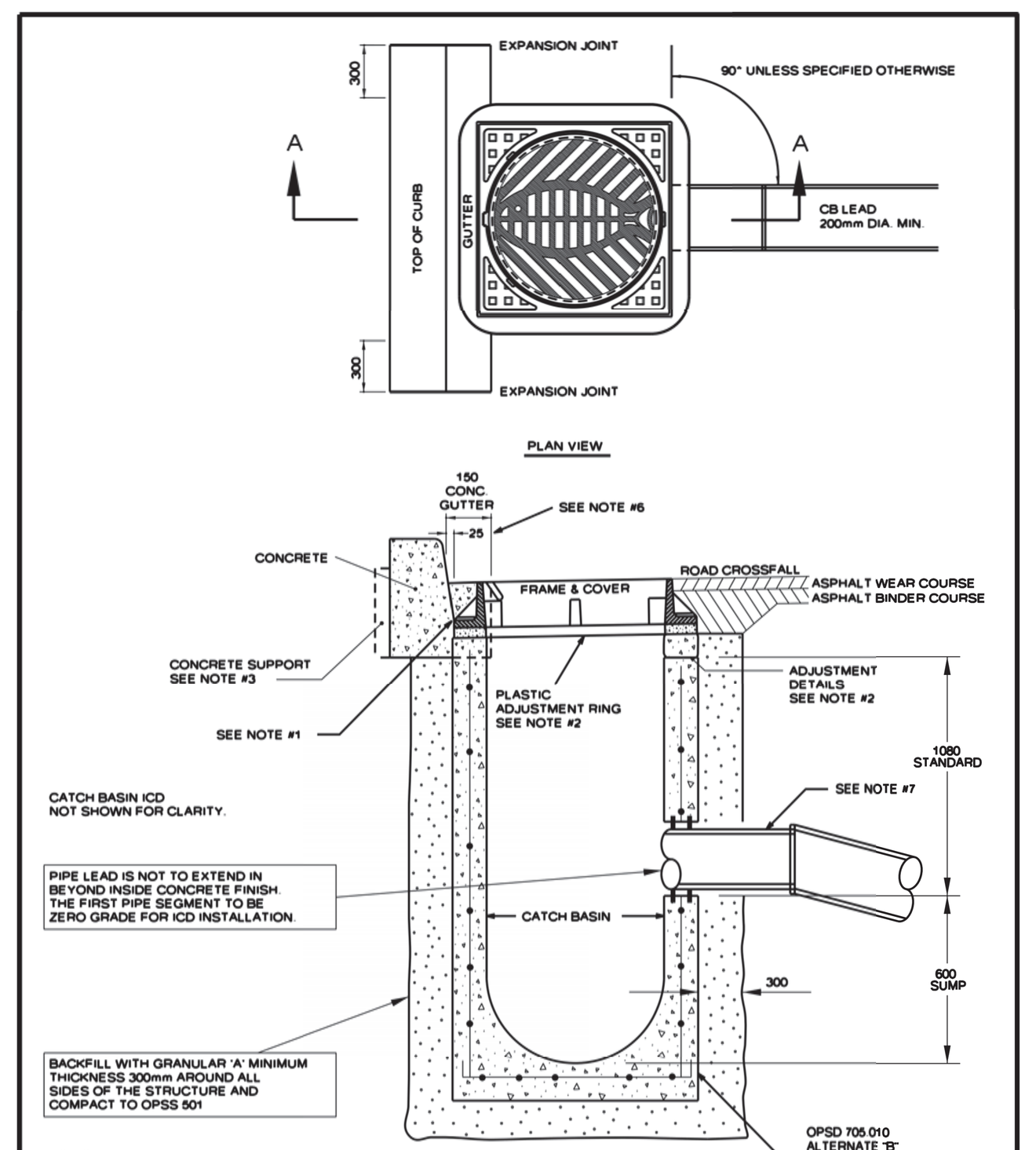
N.T.S.

Ottawa | SINGLE TRENCH (SEWER & SEWER SERVICES) | DATE: MAY 2001 | REV. DATE: MARCH 2021 | DWG. No.: S6



NOTES:
1. ALL EXISTING ASPHALT TO BE SAW CUT
2. UNLESS SPECIFIED ELSEWHERE, SURFACE COURSE ASPHALT SUPERPAVE 12.5mm, AND BASE COURSE ASPHALT SUPERPAVE 19.0mm IS TO BE USED
3. UNLESS SPECIFIED ELSEWHERE, ASPHALT MIX SHALL BE LEVEL B (PG58-34) FOR NON-BUS LOCAL ROADS, AND LEVEL D (PG64-34) FOR ALL OTHER ROADS
4. UNLESS SPECIFIED ELSEWHERE, WHERE EXISTING PAVEMENT STRUCTURE EXCEEDS 150mm IN DEPTH, ASPHALT REINSTATEMENT SHALL BE 150mm AND GRANULAR 'A' FOR THE REMAINDER
5. UNLESS SPECIFIED ELSEWHERE, WHERE AN UNDERLYING LAYER OF CONCRETE PAVEMENT EXISTS REINSTATEMENT SHALL CONSIST OF 150mm OF SUPERPAVE 19.0mm COMPACTED IN LIFTS
6. UNLESS SPECIFIED ELSEWHERE, HOT MIX ASPHALT PLACEMENT AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH F-3130
7. STEP KEY REINSTATEMENT UNLESS FULL DEPTH KEY OPTION APPROVED BY THE CITY
8. ALL EDGES TO BE ROUTED AND SEALED WITH A BEAD OF HOT RUBBERIZED ASPHALT JOINT SEALING COMPOUND

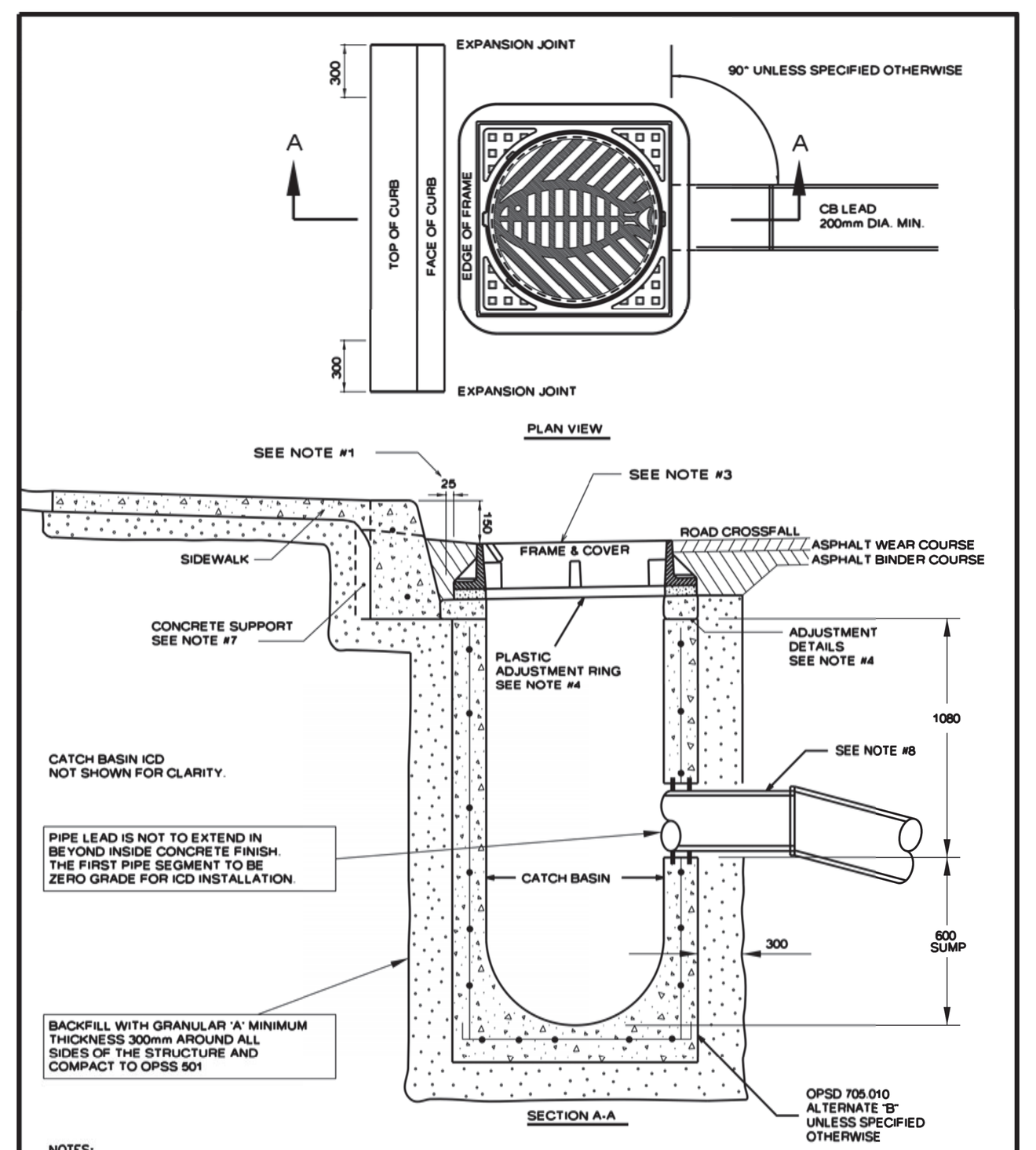
Ottawa | TITLE: STANDARD TRENCH REINSTATEMENT IN PAVED SURFACE | DATE: MAY 2001 | REV: MAR 2023 | DWG No: R10



NOTES:
1. BOTTOM EDGE OF FRAME TO BE TIGHT TO FACE OF CURB.
2. FOR ADJUSTMENT DETAIL OPTIONS, SEE F-4080.
3. A CONCRETE SUPPORT IS REQUIRED WHEN BUILT ADJACENT TO THE SIDEWALK.
4. DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
5. CONNECTION OF LEAD TO C.B. WITH AN APPROVED CAST-IN-PLACE OR BOOT GASKET.
6. 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.
7. THE FIRST PIECE OF 200 DIAMETER PIPE LEAD SHALL BE 500mm LONG WITH A 22.5 DEGREE BEND OR A LONG RADIUS BEND.

N.T.S.

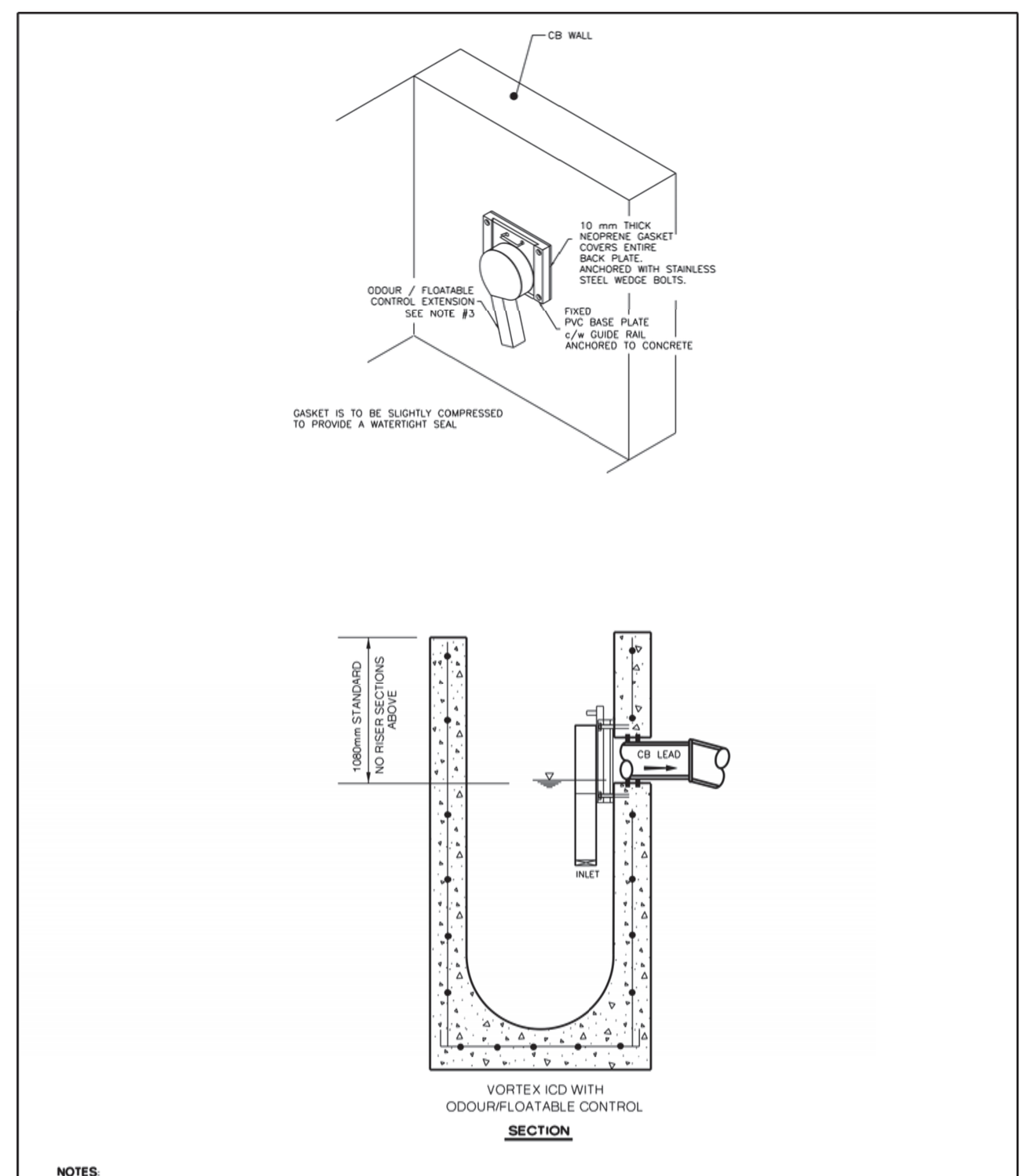
Ottawa | INSTALLATION OF CATCH BASIN WITH CURB AND GUTTER | DATE: MARCH 2005 | REV. DATE: MARCH 2019 | DWG. No.: S1



NOTES:
1. 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.
2. ROAD CROSSFALL IS REVERSED TO DIRECT SURFACE WATER TO CATCH BASIN GRATE.
3. UNDER NO CIRCUMSTANCES SHALL FRAME BE PLACED UNDER CURB OR SIDEWALK.
4. FOR ADJUSTMENT DETAIL OPTIONS, SEE F-4080.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
6. CONNECTION OF LEAD TO C.B. WITH AN APPROVED CAST-IN-PLACE OR BOOT GASKET.
7. A CONCRETE SUPPORT IS REQUIRED WHEN BUILT ADJACENT TO THE SIDEWALK.
8. THE FIRST PIECE OF 200mm DIAMETER PIPE LEAD SHALL BE 500mm LONG WITH A 22.5 DEGREE BEND OR A LONG RADIUS BEND.

N.T.S.

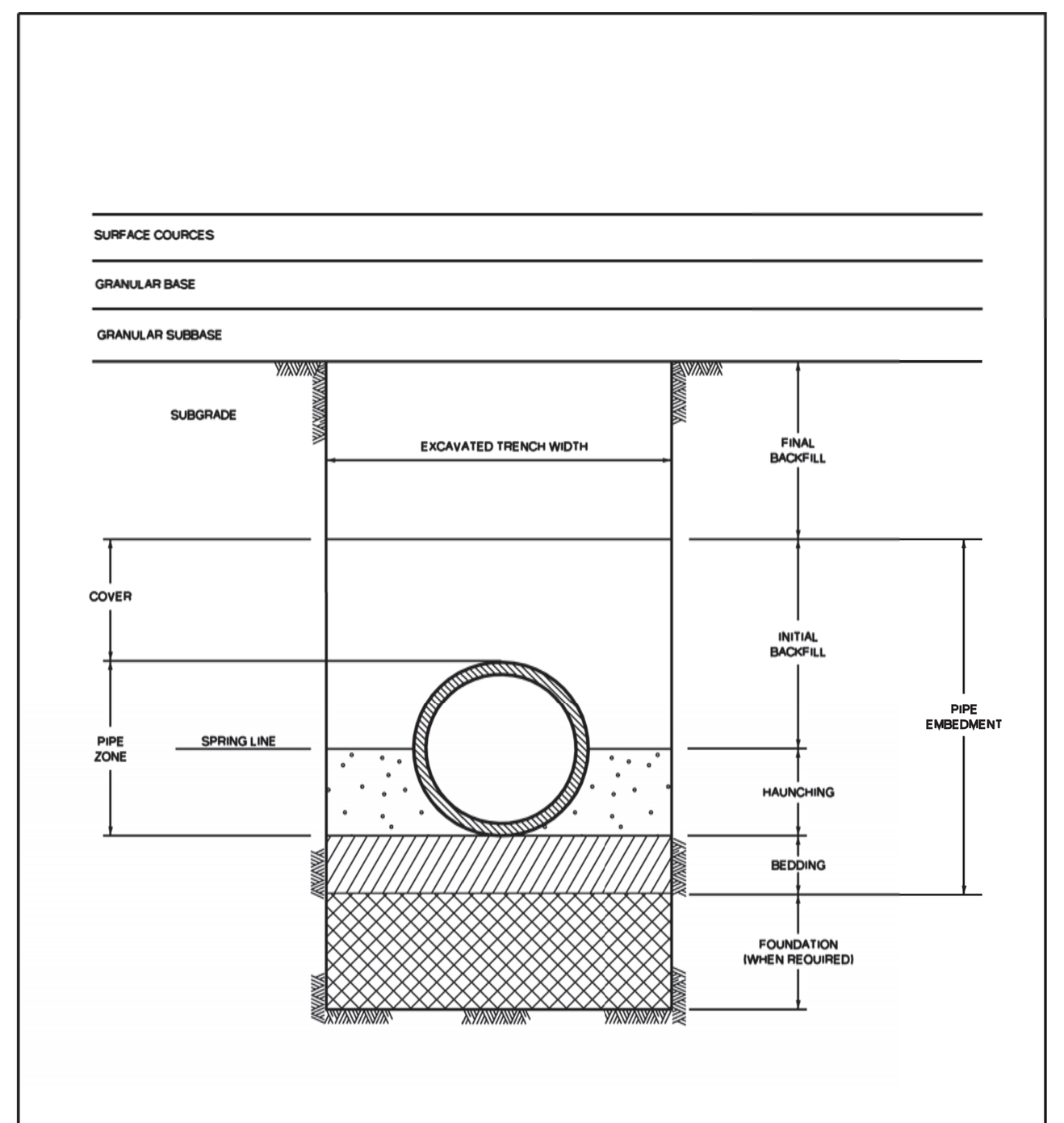
Ottawa | INSTALLATION OF CATCH BASIN WITH MONOLITHIC SIDEWALK AND CURB, BARRIER, AND DEPRESSED CURB | DATE: MARCH 2005 | REV. DATE: MARCH 2019 | DWG. No.: S2



NOTES:
1. VORTEX ICD'S ARE USED TO RESTRICT FLOWS BELOW 15L/s. The (LOWEST) RESTRICTION ALLOWED TYPICALLY IS 6L/s. PRODUCTS MAY SLIGHTLY DIFFER AS SHOWN ABOVE.
2. CURVES ARE AVAILABLE FROM THE MANUFACTURER. SEE MS - 22.15 FOR APPROVED PRODUCTS.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

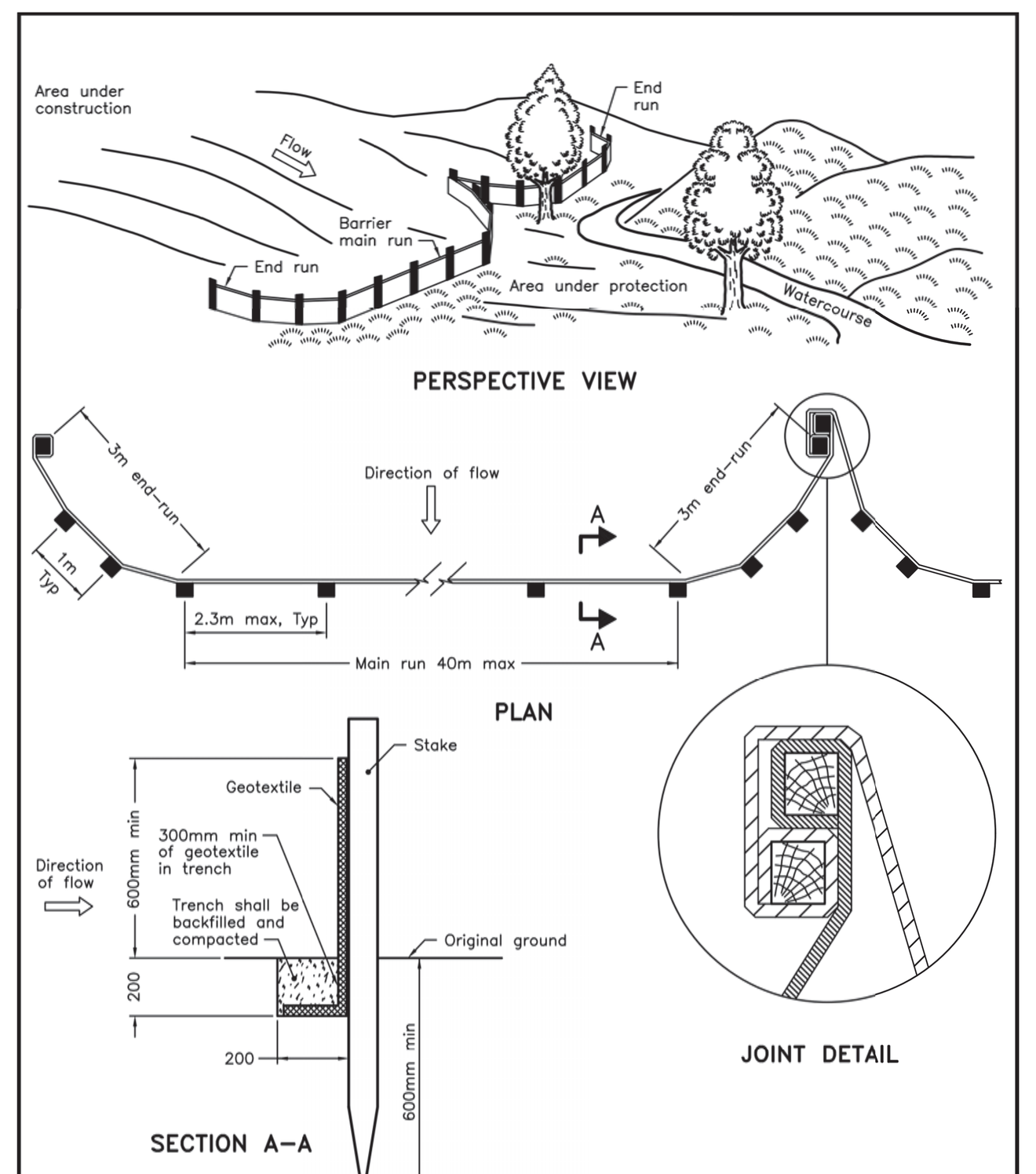
N.T.S.

Ottawa | VORTEX ICD INSTALLATION | DATE: MARCH 2008 | REV. DATE: MARCH 2019 | DWG. No.: S4.1



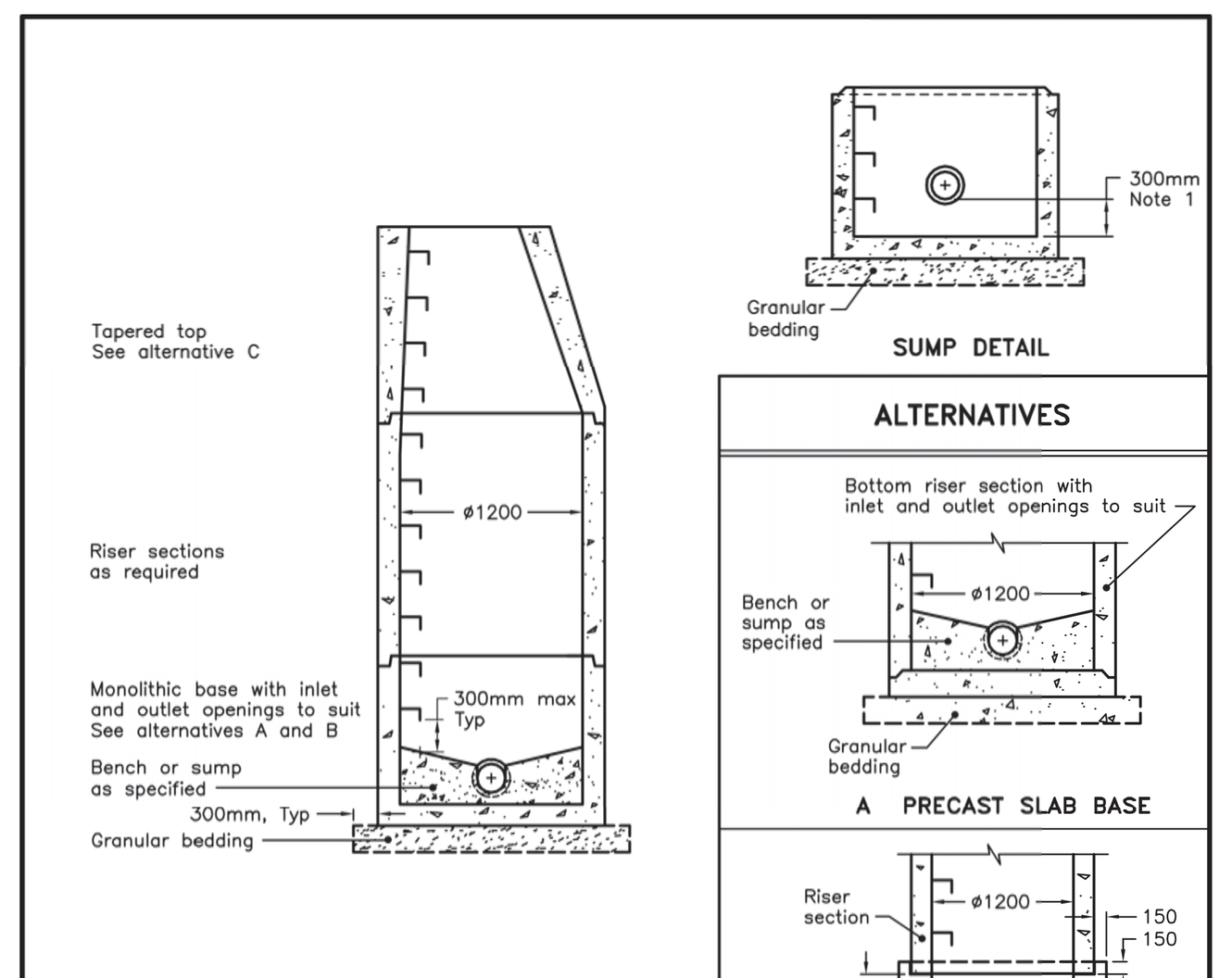
NOTES
1. ANY REFEREES IN THE STANDARD TO "BACKFILL" TO BE INTERPRETED AS "FINAL BACKFILL".
2. ANY REFERENCES IN THE STANDARD TO "BEDDING" TO BE INTERPRETED AS "PIPE EMBEDMENT".

Ottawa | STANDARD TRENCH TERMINOLOGY | DATE: MARCH 2008 | REV. DATE: | DWG. No.: S5



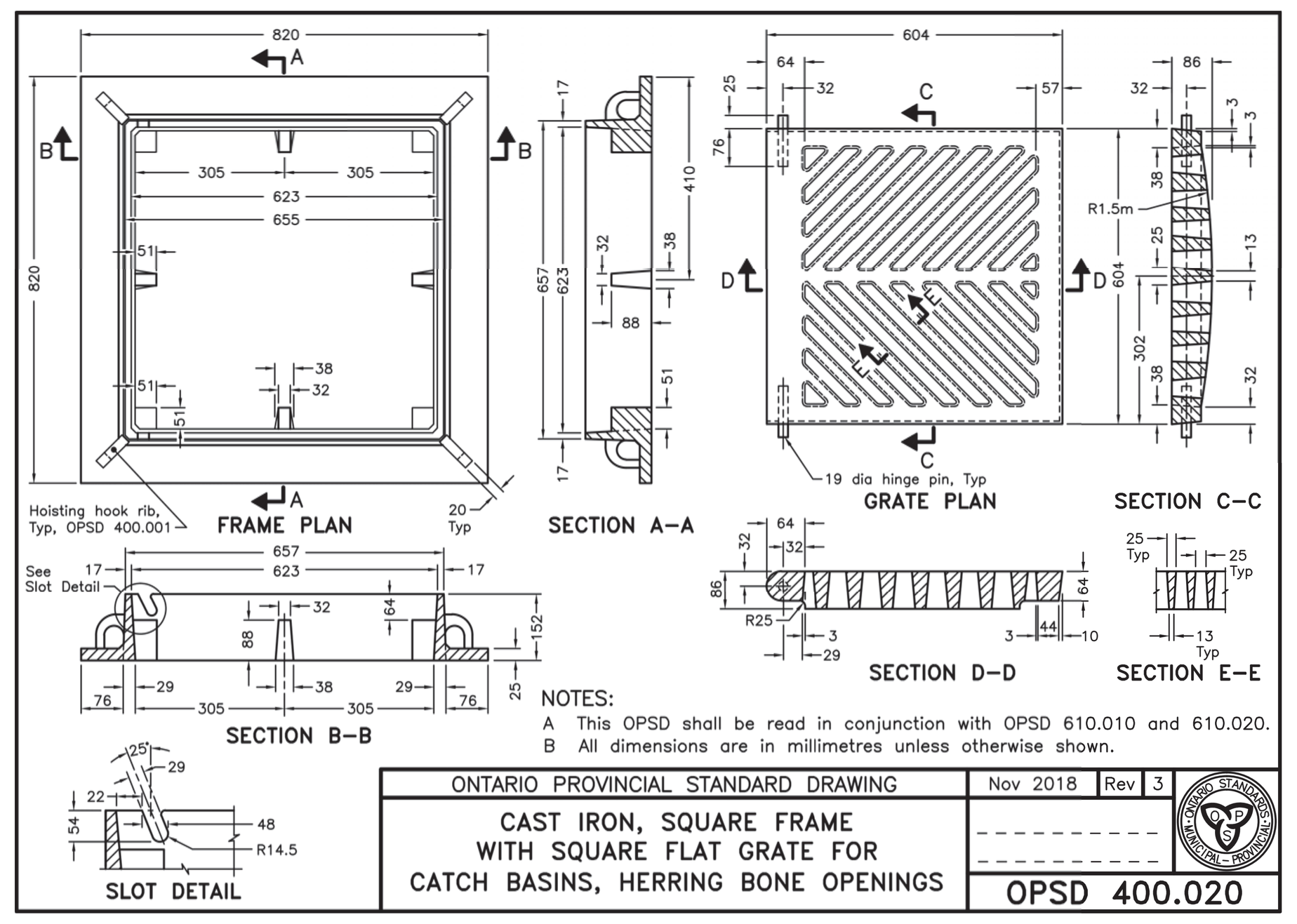
NOTE:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2021 | Rev 3
LIGHT–DUTY SILT FENCE BARRIER
OPSD 219.110



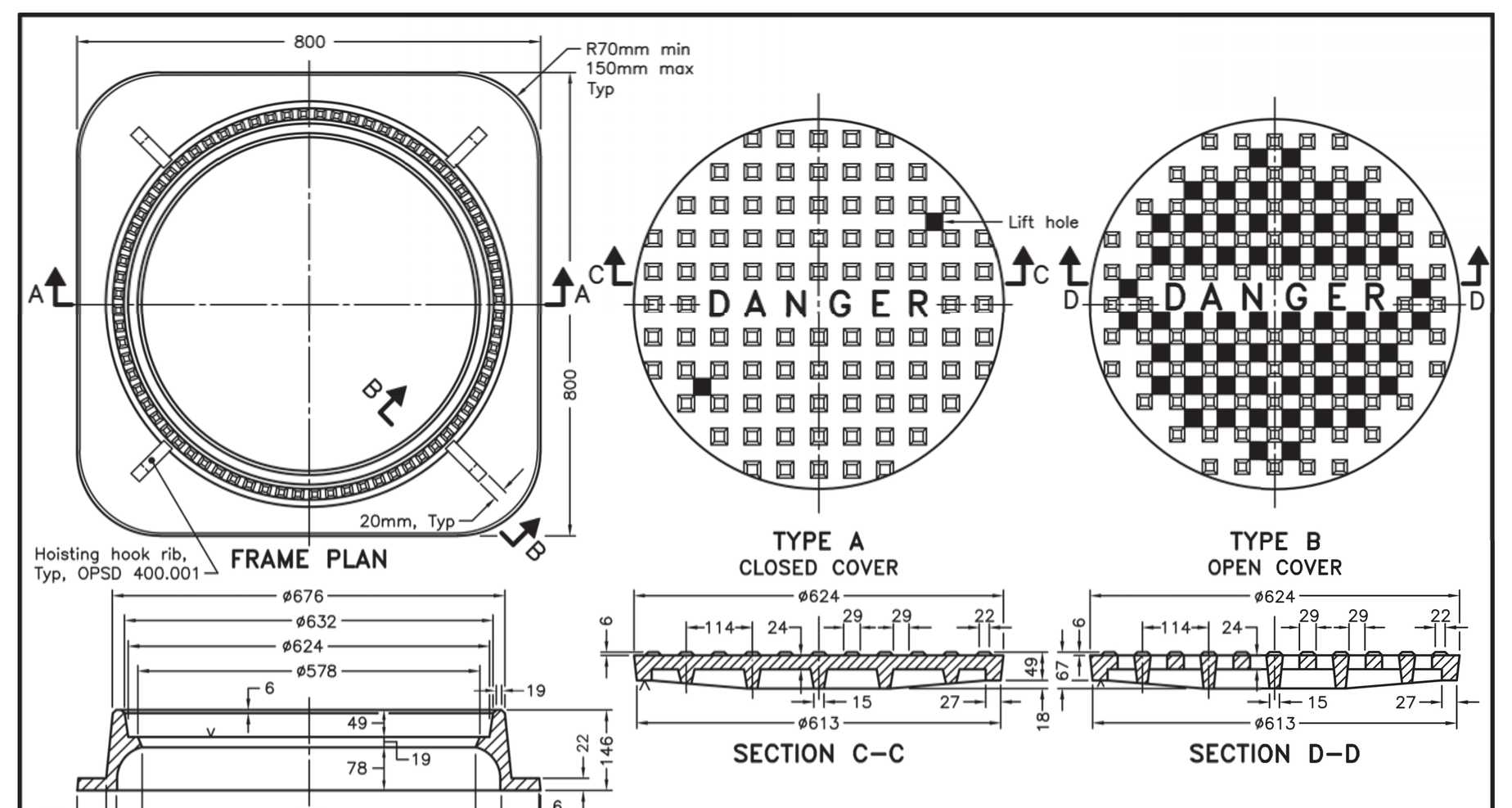
NOTES:
1 The sump is measured from the lowest invert.
A Granular backfill shall be placed to a minimum thickness of 300mm all around the maintenance hole.
B Precast concrete components shall be according to OPSD 701.030, 701.031, or 701.032.
C Structure exceeding 5.0m in depth shall include safety platform according to OPSD 404.020.
D Pipe support according to OPSD 708.020.
E For benching and pipe opening details, see OPSD 701.021.
F For adjustment unit and frame installation, see OPSD 704.010.
G All dimensions are nominal.
H All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2014 | Rev 5
PRECAST CONCRETE MAINTENANCE HOLE 1200mm DIAMETER
OPSD 701.010



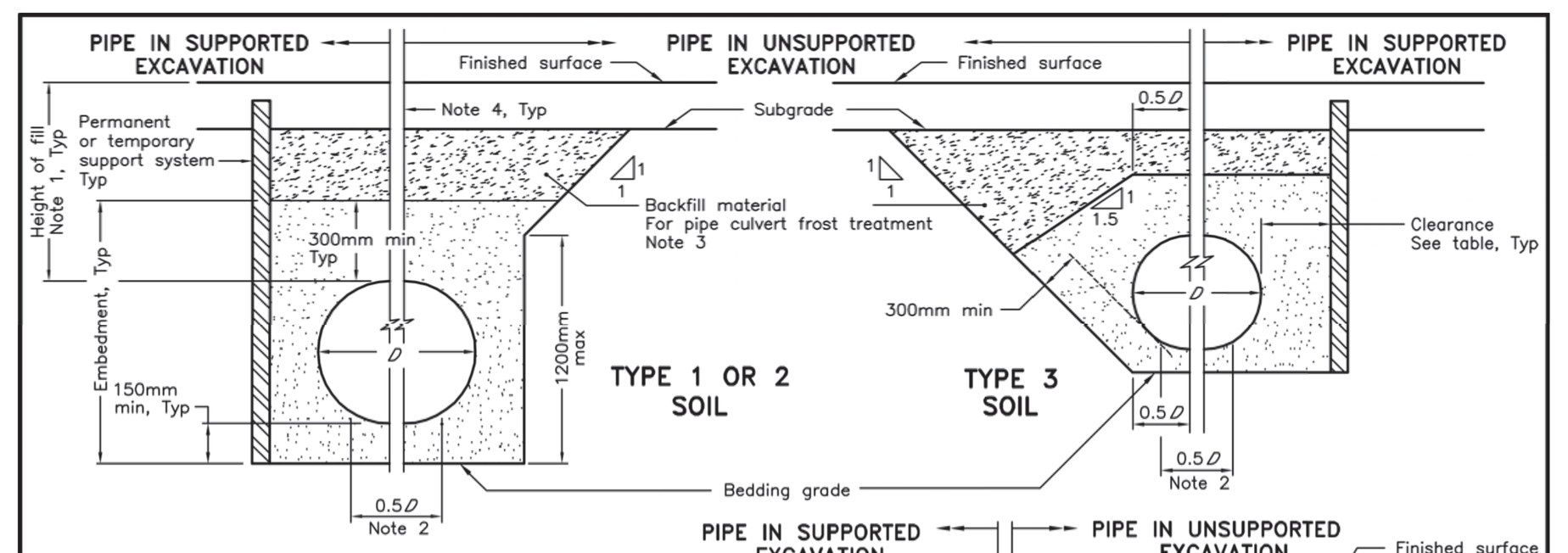
NOTES:
A This OPSD shall be read in conjunction with OPSD 610.010 and 610.020.
B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2018 | Rev 3
CAST IRON, SQUARE FRAME WITH SQUARE FLAT GRATE FOR CATCH BASINS, HERRING BONE OPENINGS
OPSD 400.020



NOTES:
A Covers shall be Type A or Type B, as specified.
B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2018 | Rev 4
CAST IRON, SQUARE FRAME WITH CIRCULAR CLOSED OR OPEN COVER FOR MAINTENANCE HOLES
OPSD 401.010



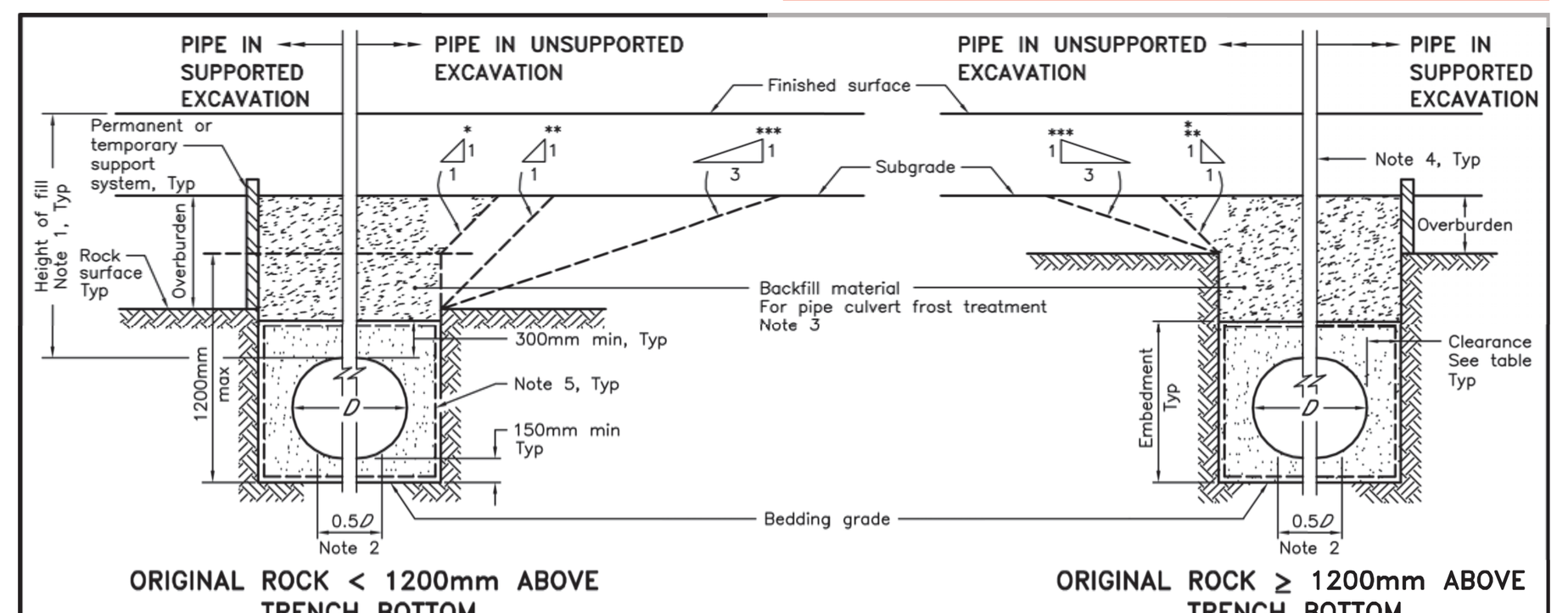
LEGEND:
D – Inside diameter

NOTES:
1 Height of fill is measured from the finished surface to top of pipe.
2 The pipe bed shall be compacted and shaped to receive the bottom of the pipe.
3 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.
4 Condition of excavation is symmetrical about centreline of pipe.
A Granular material placed in the haunch area shall be compacted prior to placing and compacting the remainder of the embedment material.
B Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.
C All dimensions are in metres unless otherwise shown.

CLEARANCE TABLE

Pipe Inside Diameter mm	Clearance mm
900 or less	300
Over 900	500

ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2014 | Rev 3
FLEXIBLE PIPE EMBEDMENT AND BACKFILL EARTH EXCAVATION
OPSD 802.010



NOTES:
1 Height of fill is measured from the finished surface to top of pipe.
2 The pipe bed shall be compacted and shaped to receive the bottom of the pipe.
3 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.
4 Condition of excavation is symmetrical about centreline of pipe.
5 Embedment material shall be wrapped in non-woven geotextile when specified.
A Granular material placed in the haunch area shall be compacted prior to placing and compacting the remainder of the embedment material.
B Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.
C Fractured rock shall be treated as Type 1 soil.
D All dimensions are in metres unless otherwise shown.

LEGEND:
D – Inside diameter
* – Type 1 or 2 soil
** – Type 3 soil
*** – Type 4 soil

CLEARANCE TABLE

Pipe Inside Diameter mm	Clearance mm
900 or less	300
Over 900	500

ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2014 | Rev 3
FLEXIBLE PIPE EMBEDMENT AND BACKFILL ROCK EXCAVATION
OPSD 802.013

APPROVED
By Lily Xu at 11:51 am, May 22, 2024

LILY XU, MCIP, RPP
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PLANNING, DEVELOPMENT, AND BUILDING SERVICES DEPARTMENT, CITY OF OTTAWA

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PARSONS

LICENSED PROFESSIONAL ENGINEER
S.D.MITCHELSON
100128064
01/17/2024
PROVINCE OF ONTARIO

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

The Ottawa Hospital | L'Hôpital d'Ottawa

Architect	HDR
Landscape Architect	HDR
Civil Engineer	Parsons
Structural Engineer	EXP
Mechanical Engineer	Smith + Andersen
Electrical Engineer	Smith + Andersen
Plumbing Engineer	Smith + Andersen
Interior Designer	HDR
Equipment Planner	Colliers
Wayfinding	

Sheet Reviewer: Author

MARK	DATE	DESCRIPTION
01	2022-09-23	ISSUED FOR PRE-CONSULTATION
02	2022-10-28	DRAFT FOR 90% SD
03	2022-11-30	ISSUED FOR SPC & FLUDA - 1ST SUBMISSION
04	2022-12-02	ISSUED FOR 3A1-2
05	2023-02-24	ISSUED FOR RFP VERSION 1.0
06	2023-04-12	RE-ISSUED FOR SPC & FLUDA
07	2023-07-28	ISSUED FOR PSOS
08	2023-08-04	RE-ISSUED FOR PSOS
09	2023-09-29	ISSUED FOR REVIEW AND COSTING
10	2023-10-27	ISSUED FOR MOH 3A.3
11	2024-01-17	ISSUED FOR DELEGATED AUTHORITY REPORT

Project Number: 10333982
Original Issue: 02/21/23

PRELIMINARY
NOT FOR CONSTRUCTION

Sheet Name: STAGE 3: HOSPITAL DETAILS 1

Sheet Number: **C116**

Project Status: STAGE 3

D07-12-22-0168

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PROVINCE OF ONTARIO

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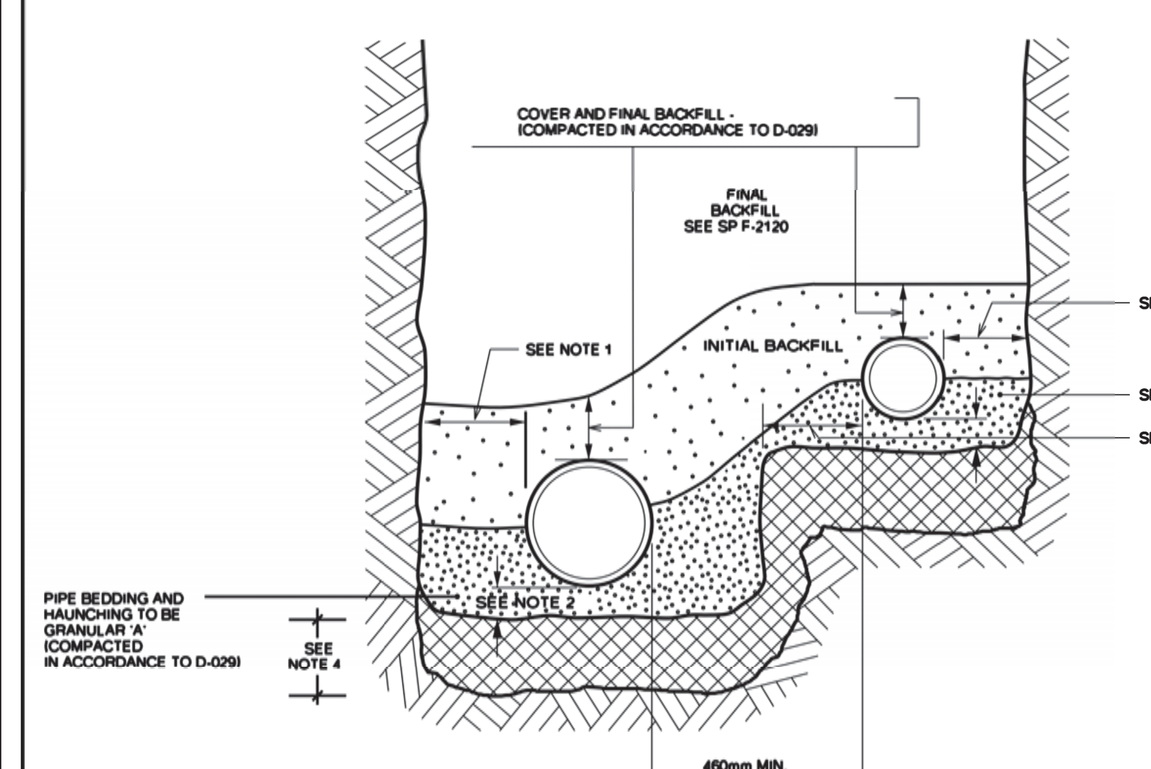
The Ottawa Hospital | L'Hôpital d'Ottawa



NOTES:

1.

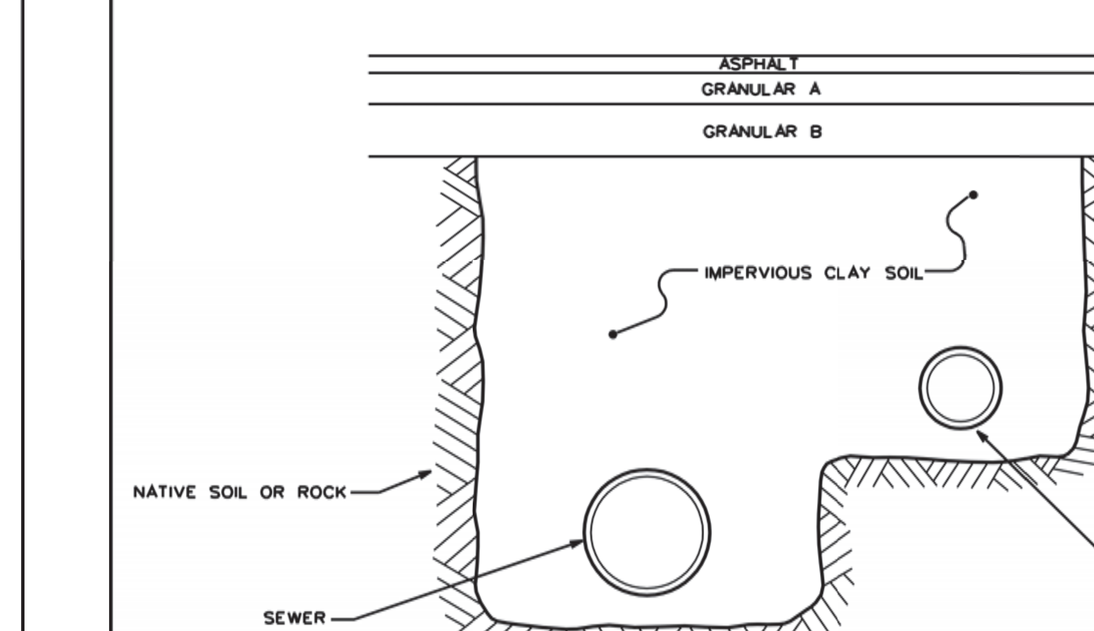
PIPE INSIDE DIAMETER (mm)	CLEARANCE (mm)
150 TO 900	CONC 450 PVC 450
OVER 900	500

2.

CONDITION	SEWER	SERVICES
EARTH	150 Min.	150 Min.
ROCK	300 Min.	150 Min.

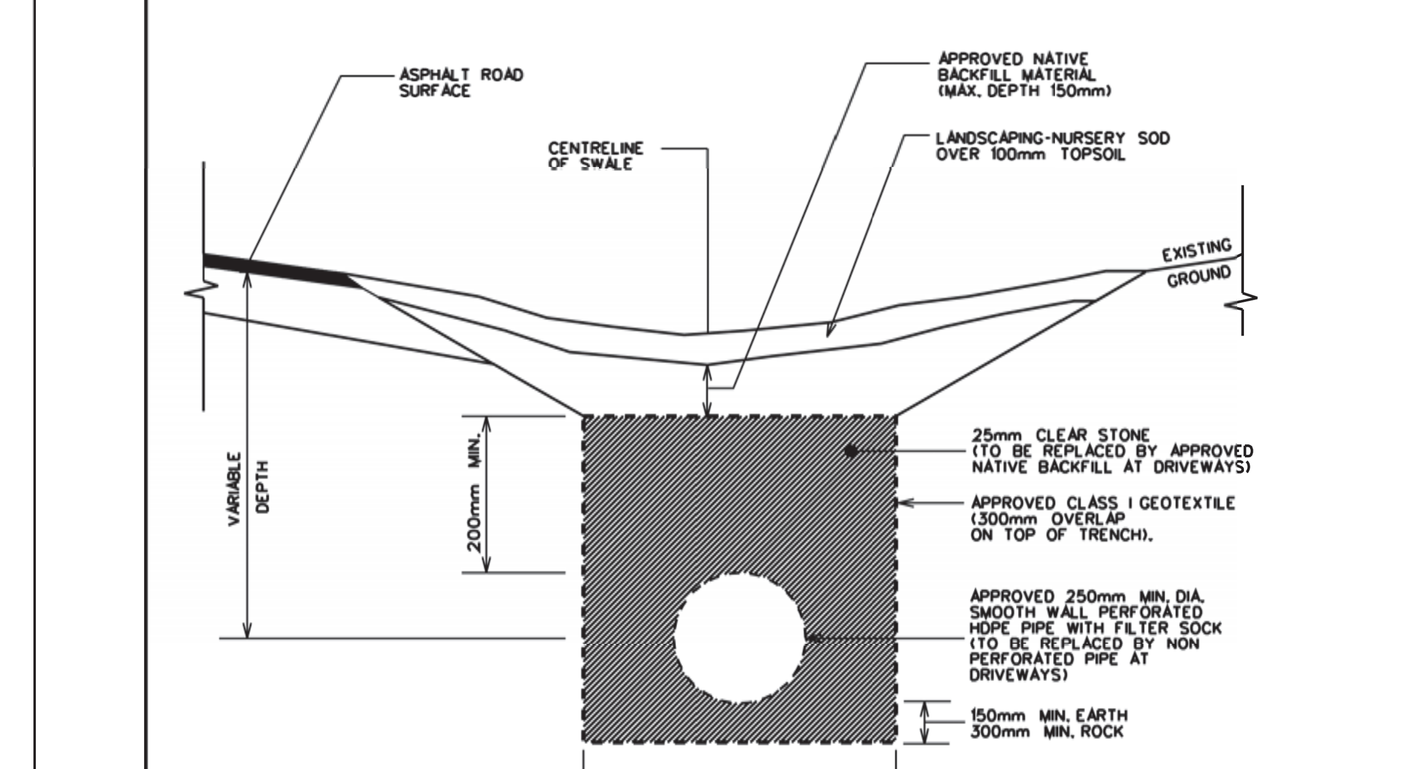
3. FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-2120.
4. WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOILS SHALL BE EXCAVATED TO CREATE A FOUNDATION THAT SHALL BE FILLED TO THE BOTTOM OF THE BEDDING WITH GRANULAR 'B'.
5. SEE S11.3 FOR TYPICAL SINGLE, SEMI-DETACHED AND TOWNHOUSE LOT SERVICING
6. INITIAL BACKFILL: CONCRETE PIPE - GRANULAR 'A' OR GRANULAR 'B' WITH 100% PASSING THE 37.5mm SIEVE; PVC PIPE - GRANULAR 'A'

Ottawa — COMBINED TRENCH (SEWERS & SEWER SERVICES) — DATE: MAY 2001 — REV DATE: MARCH 2019 — DWG. No.: S7



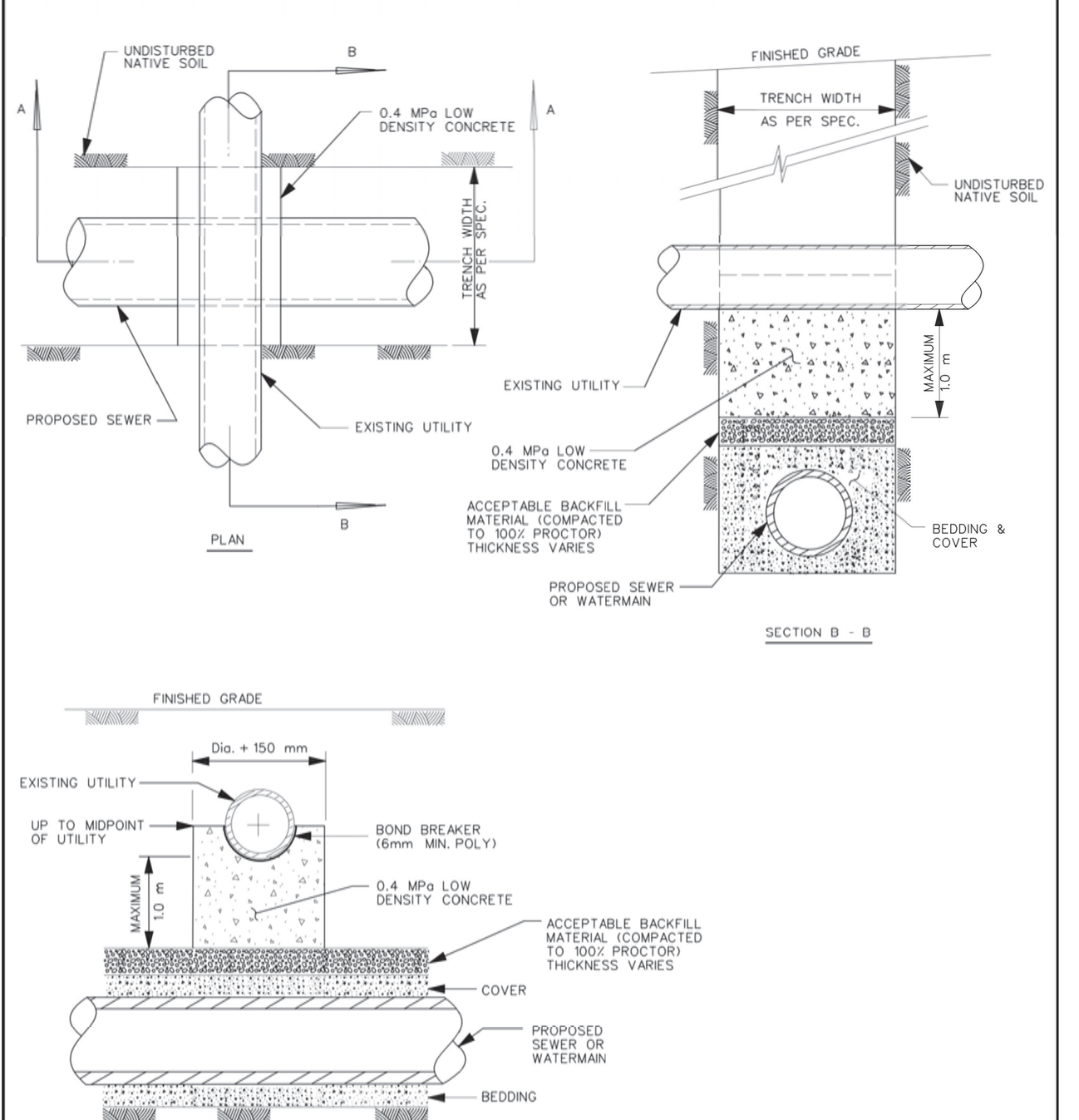
NOTES:
1. CLAY SEAL TO EXTEND FROM BOTTOM OF TRENCH EXCAVATION TO UNDERSIDE OF ROAD STRUCTURE.
2. CLAY SEAL TO EXTEND FULL TRENCH WIDTH TO EXISTING NATIVE SOILS WITH A MINIMUM THICKNESS OF 1.0m ALONG PIPES.
3. CLAY SEAL TO BE LOCATED SO THAT NO PIPE JOINTS ARE WITHIN THE CLAY SEAL MATERIAL.

Ottawa — CLAY SEAL FOR PIPE TRENCHES — DATE: MAY 2001 — REV. DATE: MARCH 2006 — DWG. No.: S8

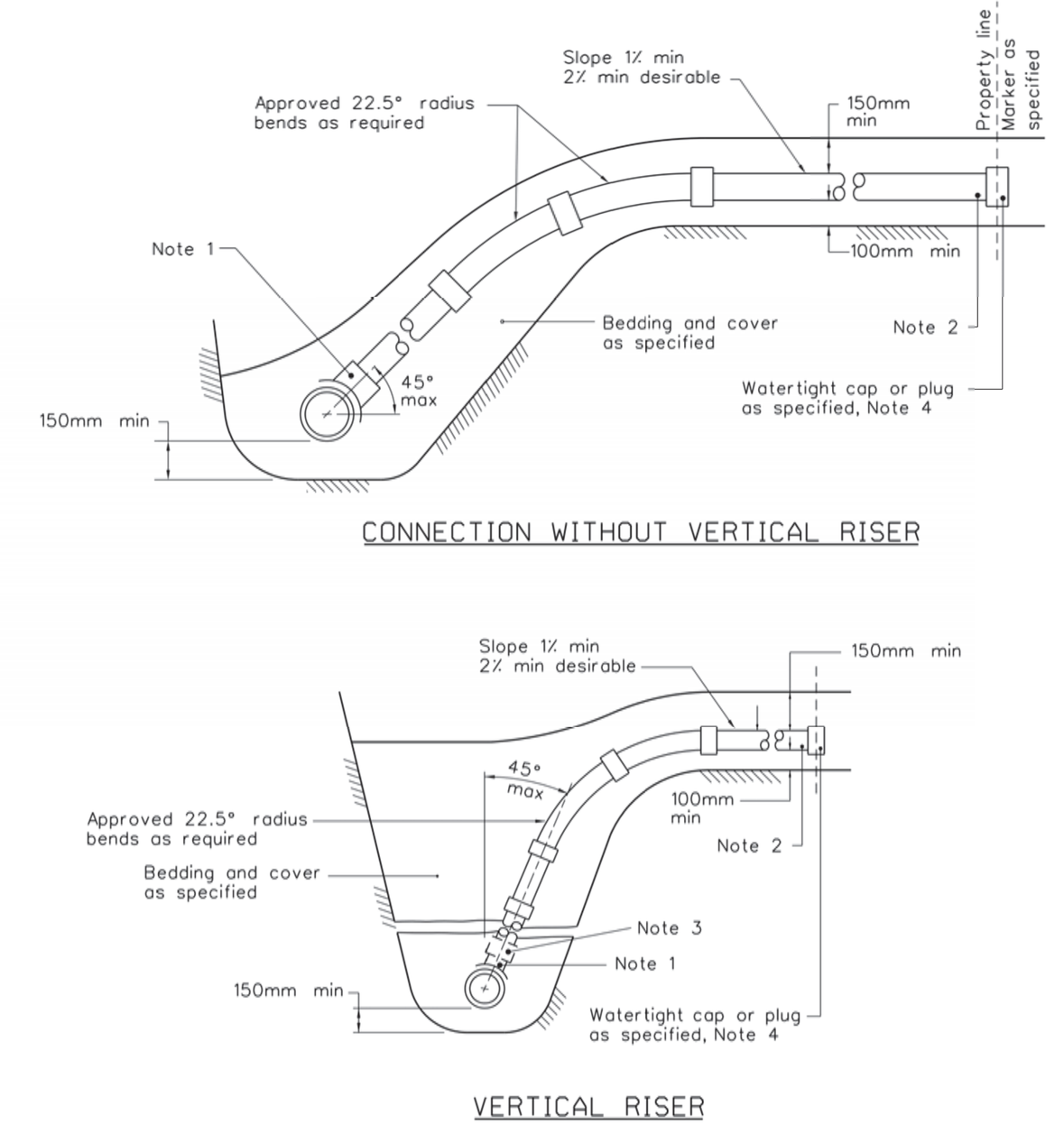


NOTES:
1. THIS DRAWING TO BE USED IN CONJUNCTION WITH S26.
2. LONGITUDINAL SLOPE OF SWALES/DITCHES .3% MIN. WITH 1% OR GREATER PREFERRED.
3. PERFORATED HDPE PIPE TO BE PLACED AT MINIMUM GRADE OF 0.5%.
4. SEE MS 22.15 FOR APPROVED GEOTEXTILES.
5. POLYETHYLENE PIPE TO BE NON PERFORATED UNDER DRIVEWAYS AND BACKFILLED WITH APPROVED NATIVE BACKFILL.
6. ANY INCREASE IN TRENCH DEPTH BEYOND 1000mm MINIMUM SHALL RESULT IN A CORRESPONDING INCREASE IN THE DEPTH OF 25mm CLEAR STONE ABOVE PERFORATED PIPE.
7. APPROVED NON-WOVEN CLASS I GEOTEXTILE SHALL BE USED.
8. SEE MS 22.15 FOR APPROVED PRODUCTS.
9. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa — DITCHED PIPE STORM SEWER INSTALLATION — DATE: MAY 2001 — REV. DATE: MARCH 2007 — DWG. No.: S9

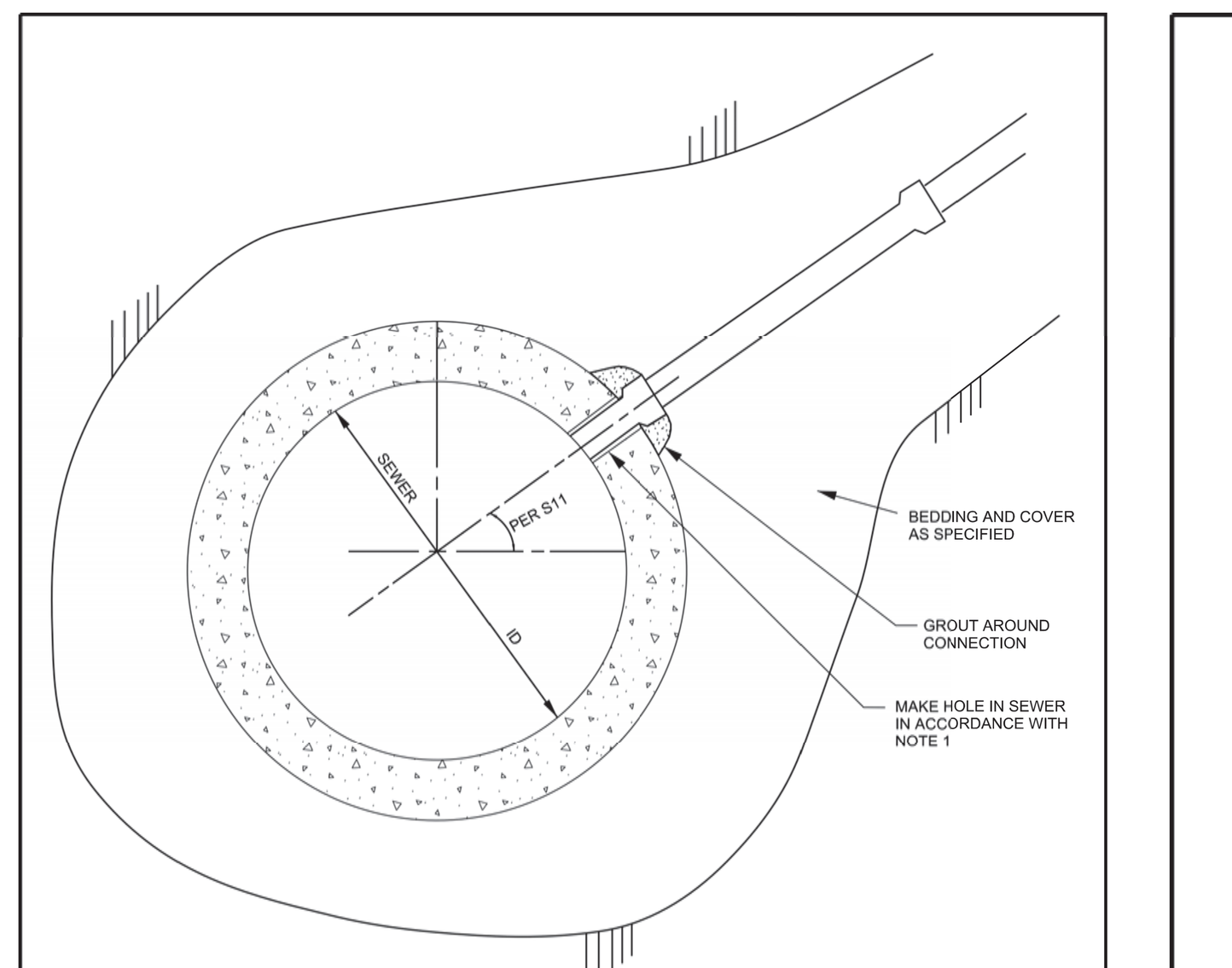


Ottawa — SUPPORT DETAIL FOR EXISTING UTILITY CROSSING SEWER OR WATERMAIN TRENCH — DATE: MAY 2001 — REV. DATE: NONE — DWG. No.: S10



NOTES:
1. ALL DIAMETERS OF SERVICE CONNECTIONS TO FLEXIBLE MAIN SEWER SHALL BE MADE USING APPROVED TEE OR WYE FITTINGS.
2. SANITARY SERVICES TO BE 135mm AND STORM SERVICES TO BE 100mm FOR NEW RESIDENCES UNLESS SPECIFIED OTHERWISE. SERVICE PIPE AND RADIUS BENDS TO BE APPROVED CSA B182.2, SDR28 PRODUCTS UNLESS SPECIFIED OTHERWISE.
3. APPROVED CONTROLLED SETTLEMENT JOINTS OPTIONAL FOR SERVICE CONNECTIONS TO MAIN SEWERS UP TO 5m DEEP. WHERE APPROVED, CONNECTIONS TO SEWERS OVER 5m DEEP REQUIRE APPROVED CONTROLLED SETTLEMENT JOINTS.
4. CAP OR PLUG AT THE PROPERTY LINE SHALL BE ADEQUATELY BRACED TO WITHSTAND TESTING PRESSURE.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

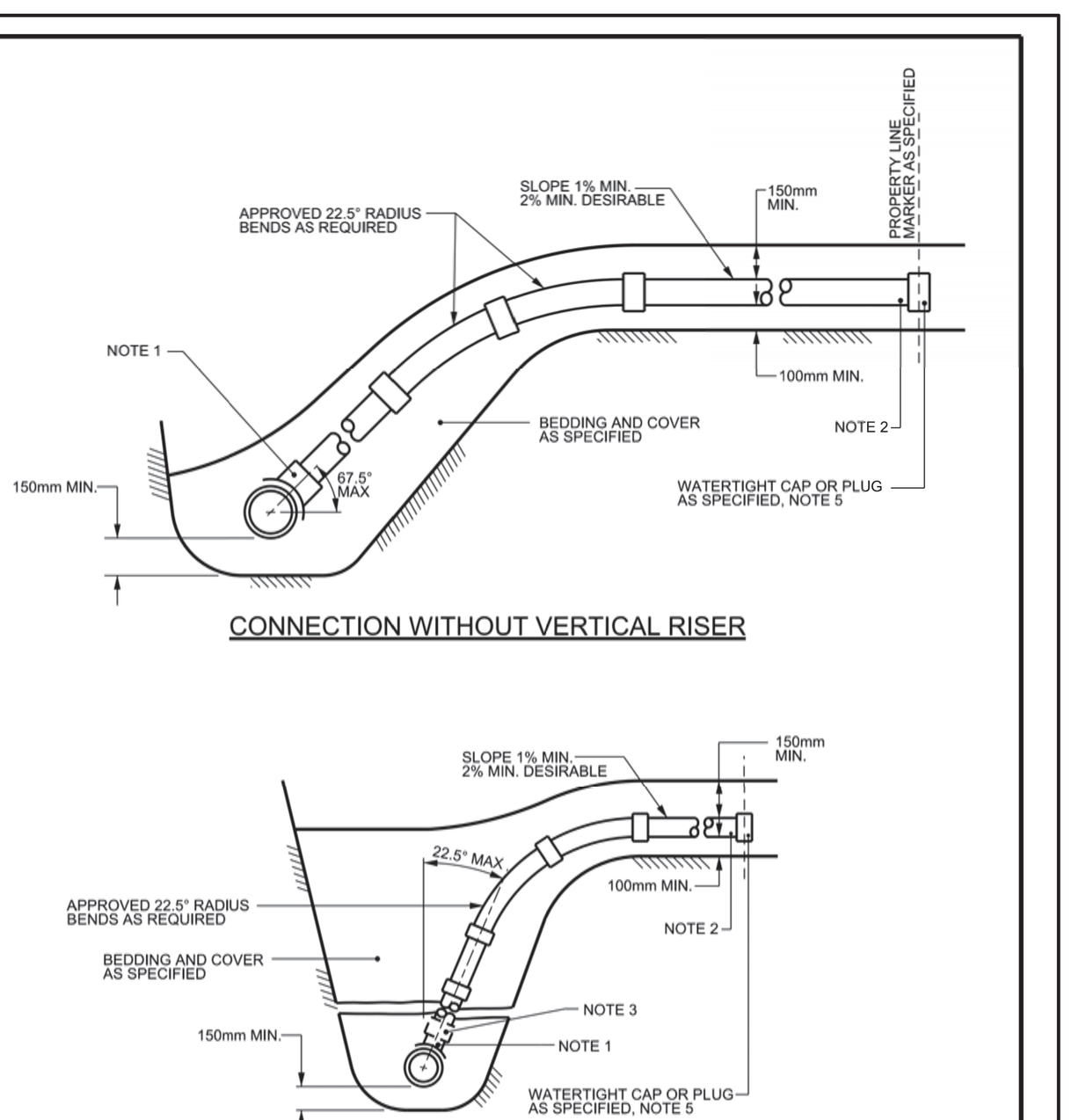
Ottawa — SEWER SERVICE CONNECTIONS FOR FLEXIBLE MAIN SEWER PIPE (MODIFIED OPSD-1006.020) — DATE: MARCH 2006 — REV. DATE: MARCH 2013 — DWG. No.: S11.1



NOTES:
1. OPENING IN PIPE SHALL BE A ROUND MACHINE CUT HOLE.
2. INSERT TO CONSIST OF THE BELL END OF AN APPROVED SERVICE PIPE. LENGTH TO BE LIMITED SUCH THAT NO PART OF THE INSERT PROTRUDES INTO THE OPENING OF THE PIPE.
3. WRAP APPROVED WATER-TIGHT SEALANT AROUND THE SPIGOT PORTION OF THE BELL END PRIOR TO INSERTING. USE ENOUGH SEALANT TO ENSURE A TIGHT WATER-TIGHT CONNECTION THAT WILL HOLD THE BELL IN POSITION.
4. GROUT AROUND THE BELL END TO PROTECT THE SEALANT AND SUPPORT THE BELL.
5. ALL OTHER NOTES OF S11 APPLY.
6. SEE MS-22.15 FOR APPROVED SEALANT PRODUCTS.

N.T.S.

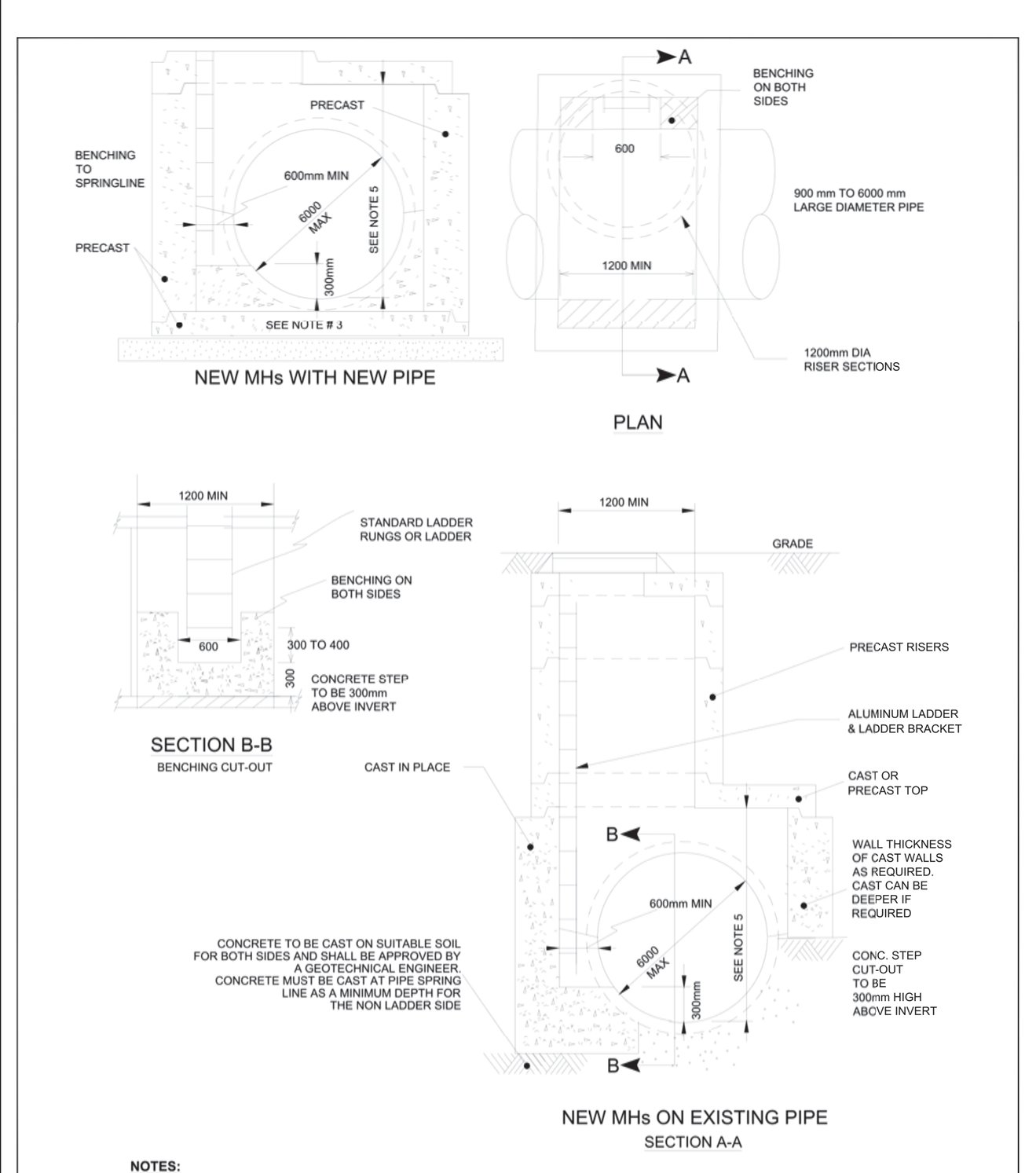
Ottawa — SEWER SERVICE CONNECTIONS FOR RIGID MAIN SEWER PIPE USING BELL END INSERT METHOD — DATE: MARCH 2011 — REV. DATE: — DWG. No.: S11.2



NOTES:
1. ALL DIAMETERES OF SERVICE CONNECTIONS THAT HAVE NOMINAL DIAMETERS NO GREATER THAN 50% OF THE NOMINAL DIAMETER OF THE RIGID SEWER PIPE SHALL BE MADE USING A BELL END INSERT AS PER S11.2 OR AN APPROVED RUBBER GASKETED INSERT, INSTALLED ABOVE THE SPRING LINE.
2. SANITARY SERVICES TO BE 135mm AND STORM SERVICES TO BE 100mm FOR NEW RESIDENCES UNLESS SPECIFIED OTHERWISE. SERVICE PIPE AND RADIUS BENDS TO BE APPROVED CSA B182.2, SDR28 PRODUCTS UNLESS SPECIFIED OTHERWISE.
3. APPROVED CONTROLLED SETTLEMENT JOINTS OPTIONAL FOR SERVICE CONNECTIONS TO MAIN SEWERS UP TO 5m DEEP. WHERE APPROVED, CONNECTIONS TO SEWERS OVER 5m DEEP REQUIRE APPROVED CONTROLLED SETTLEMENT JOINTS.
4. VERTICAL RISER SHALL BE SAME AS SERVICE PIPE UNLESS OTHERWISE SPECIFIED.
5. CAP OR PLUG AT THE PROPERTY LINE SHALL BE ADEQUATELY BRACED TO WITHSTAND TESTING PRESSURE.
6. FOR NEW CONSTRUCTION, INSERTS MUST BE INSTALLED ON THE MAIN PIPE BEFORE THAT PIPE IS LAID. FOR SERVICES/BRANCHES 375mm DIA. OR LESS, APPROVED "CORED TEES" MAY BE USED.
7. APPROVED CUT-IN TOOL MUST BE USED FOR FIELD MADE CONNECTIONS.
8. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

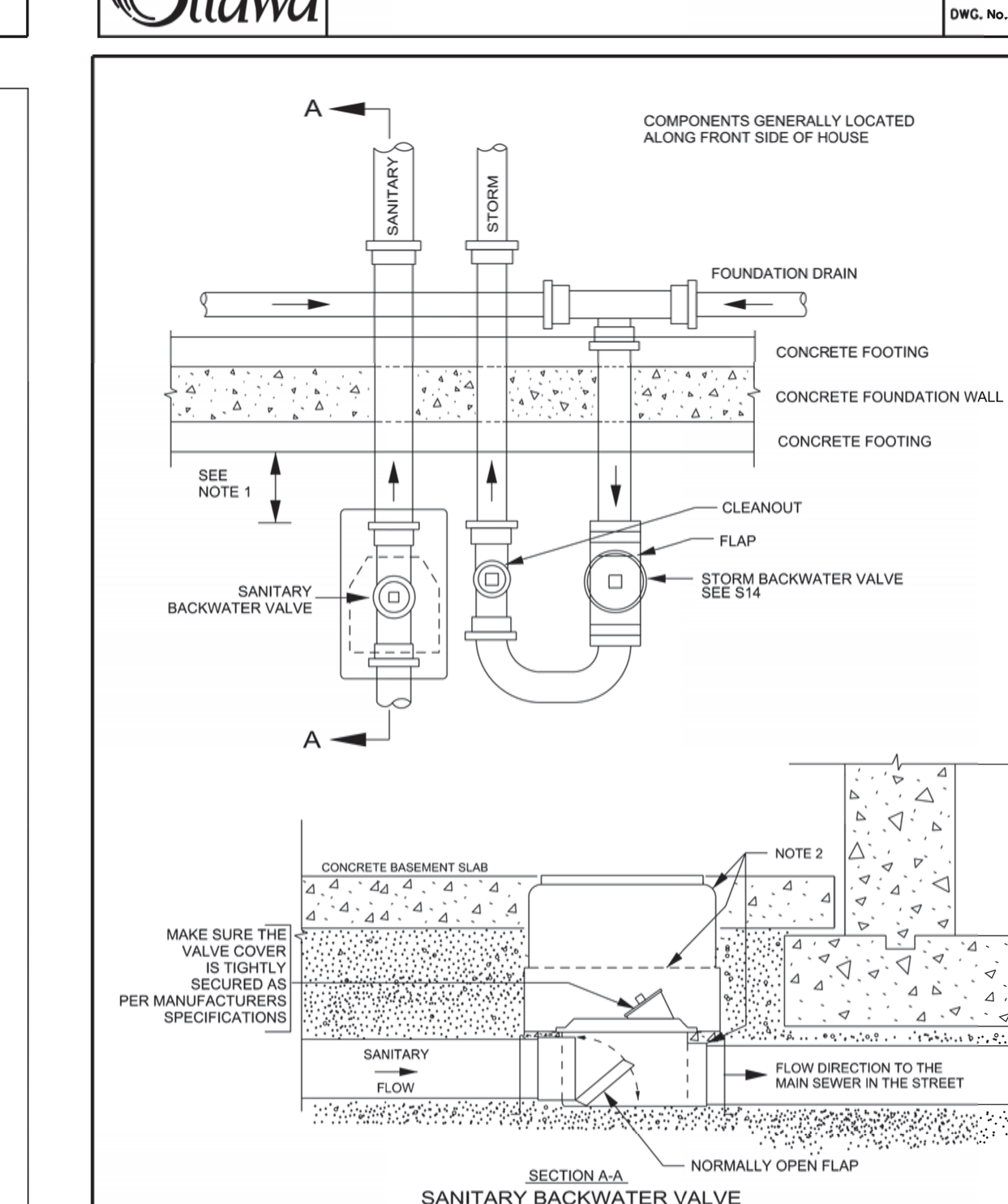
N.T.S.

Ottawa — SEWER SERVICE CONNECTIONS FOR RIGID MAIN SEWER PIPE (MODIFIED OPSD-1006.010) — DATE: MARCH 2006 — REV. DATE: MARCH 2014 — DWG. No.: S11



NOTES:
1. STAMPED SHOP DRAWINGS TO BE SUBMITTED FOR EXISITNG APPLICATIONS
2. APPROVED GEOTECHNICAL TESTING TO BE COMPLETED PRIOR TO CASTING CONCRETE
3. NEW MHs ON NEW PIPES TO HAVE CONC. MH BASES. LANDINGS AS PER F-4070
4. THE CONNECTIONS BETWEEN THE MH AND PIPE ARE TO BE AS PER F-4100
5. FOR HEADROOM REQUIREMENTS, SEE F-4070

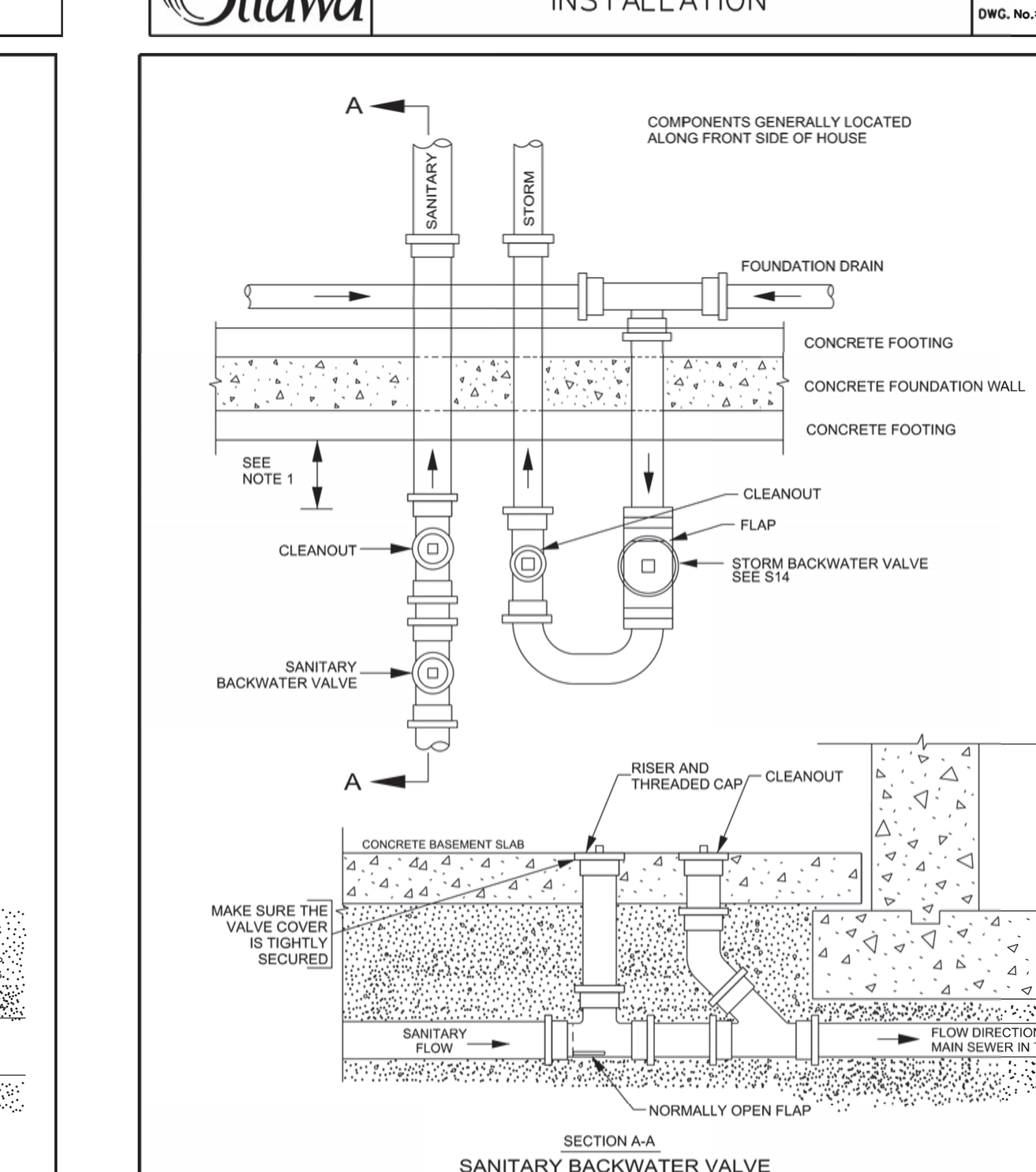
Ottawa — TITLE: MH PLACEMENT FOR EXISTING & NEW 900 TO 6000mm DIAMETER PIPES — DATE: JAN 2009 — REV: MAR 2023 — DWG No: S12.2



NOTES:
1. BACKWATER VALVE, CLEAN-OUTS AND ANY OTHER FITTINGS MUST BE INSTALLED A MINIMUM OF 300mm INSIDE OF THE BASEMENT FOOTING. THIS IS TO ENSURE THERE IS SUFFICIENT ROOM TO REPLACE THESE COMPONENTS IN THE FUTURE WITHOUT HAVING TO DAMAGE THE FOOTING/WALL DURING THE PROCESS
2. JOINTS BETWEEN THE ACCESS BOX SECTIONS AND THE ACCESS BOX AND THE BACKWATER VALVE AND THE FLOOR SLAB SHALL BE SEALED.

N.T.S.

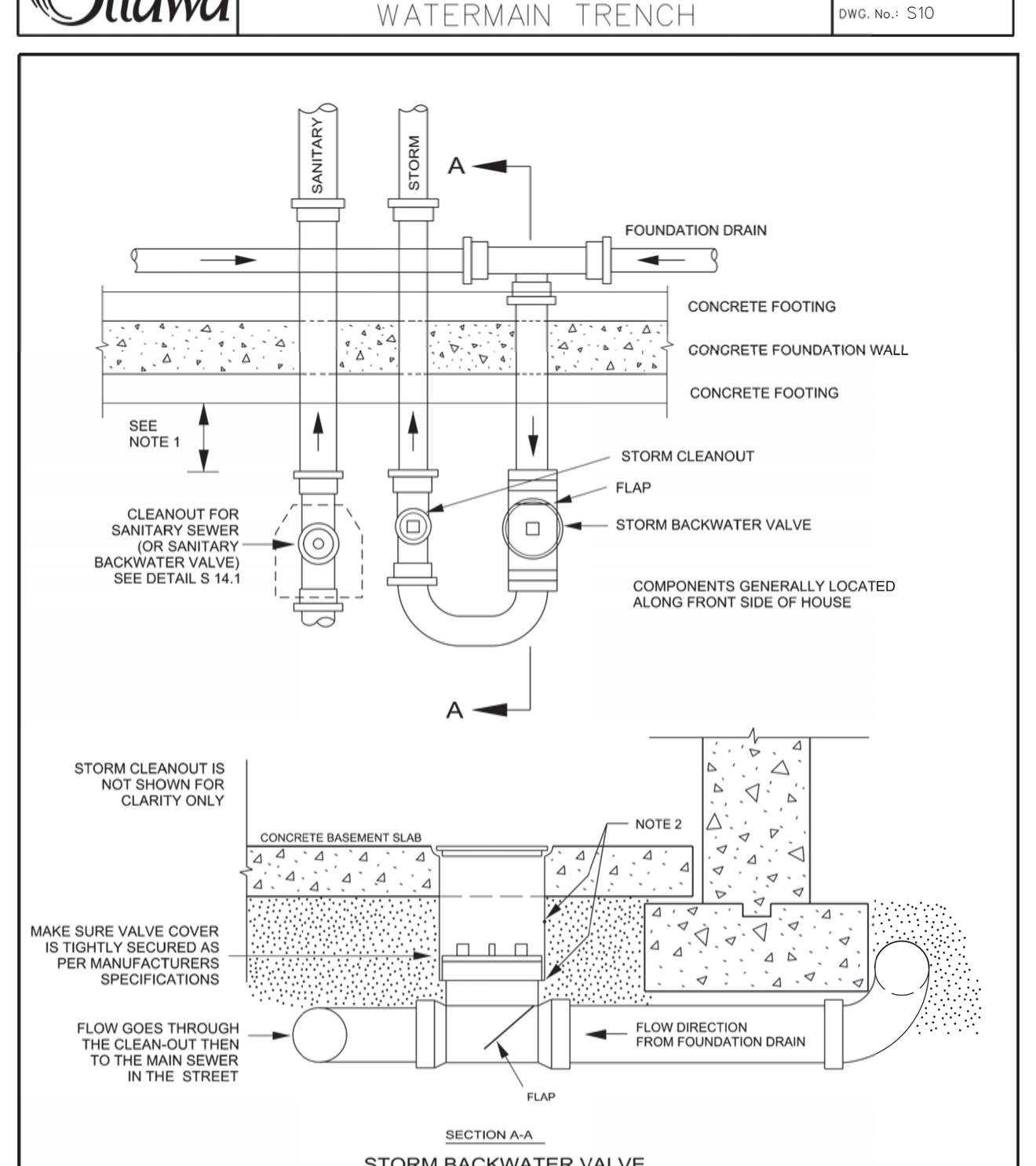
Ottawa — SANITARY BACKWATER VALVE INSTALLATION TYPE 1 — DATE: MARCH 2010 — REV. DATE: MARCH 2011 — DWG. No.: S14.1



NOTES:
1. BACKWATER VALVE, CLEANOUTS AND ANY OTHER FITTINGS MUST BE INSTALLED A MINIMUM OF 300mm INSIDE OF THE BASEMENT FOOTING. THIS IS TO ENSURE THERE IS SUFFICIENT ROOM TO REPLACE THESE COMPONENTS IN THE FUTURE WITHOUT HAVING TO DAMAGE THE FOOTING/WALL DURING THE PROCESS
2. JOINTS BETWEEN CLEANOUT AND THE BACKWATER VALVE AND THE FLOOR SLAB SHALL BE SEALED.

N.T.S.

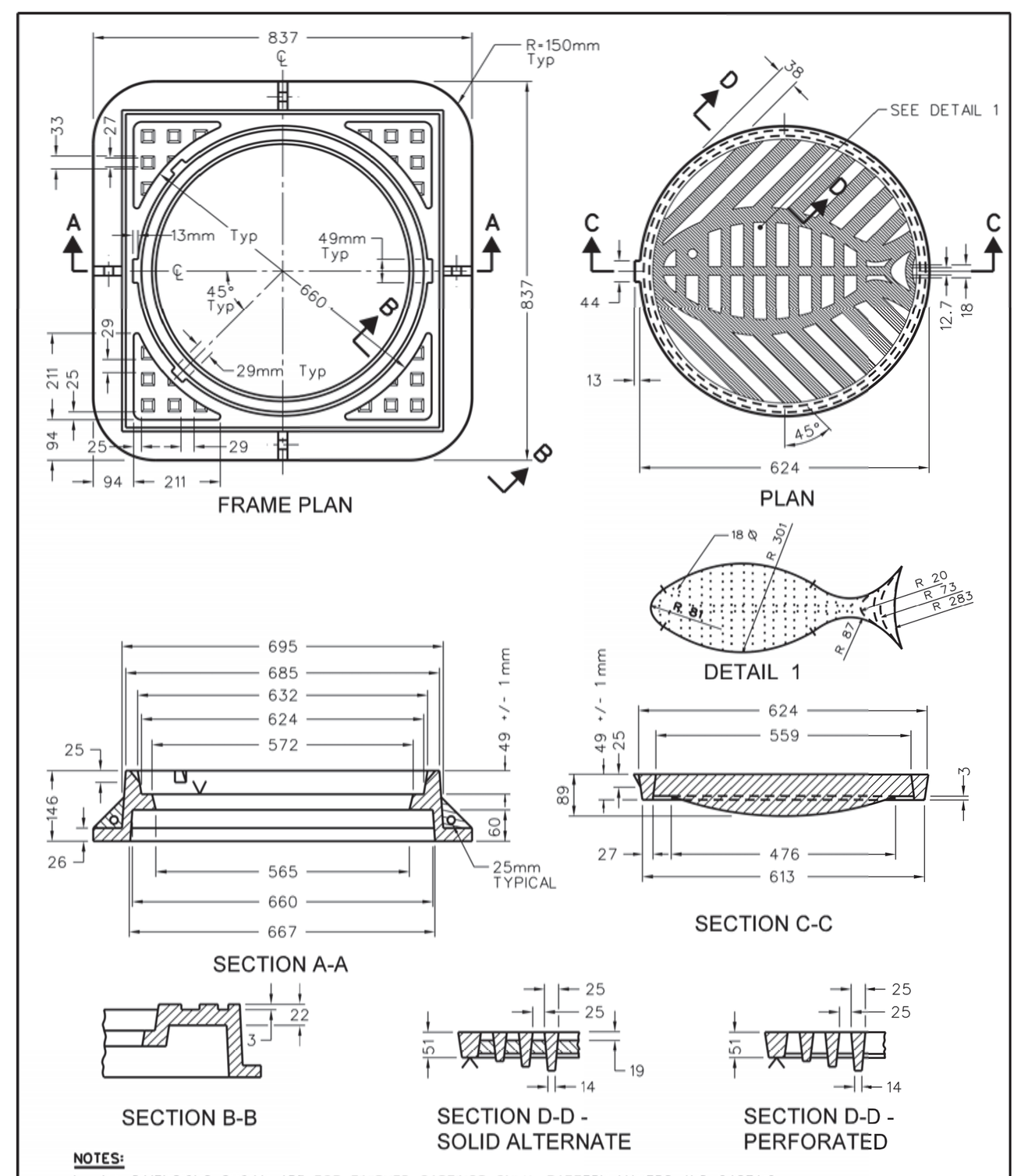
Ottawa — SANITARY BACKWATER VALVE INSTALLATION TYPE 2 — DATE: MARCH 2011 — REV. DATE: — DWG. No.: S14.2



NOTES:
1. BACKWATER VALVE, CLEAN-OUTS AND ANY OTHER FITTINGS MUST BE INSTALLED A MINIMUM OF 300mm INSIDE OF THE BASEMENT FOOTING. THIS IS TO ENSURE THERE IS SUFFICIENT ROOM TO REPLACE THESE COMPONENTS IN THE FUTURE WITHOUT HAVING TO DAMAGE THE FOOTING/WALL DURING THE PROCESS
2. JOINTS BETWEEN THE SLEEVE AND THE BACKWATER VALVE AND THE FLOOR SHALL BE WATERTIGHT.

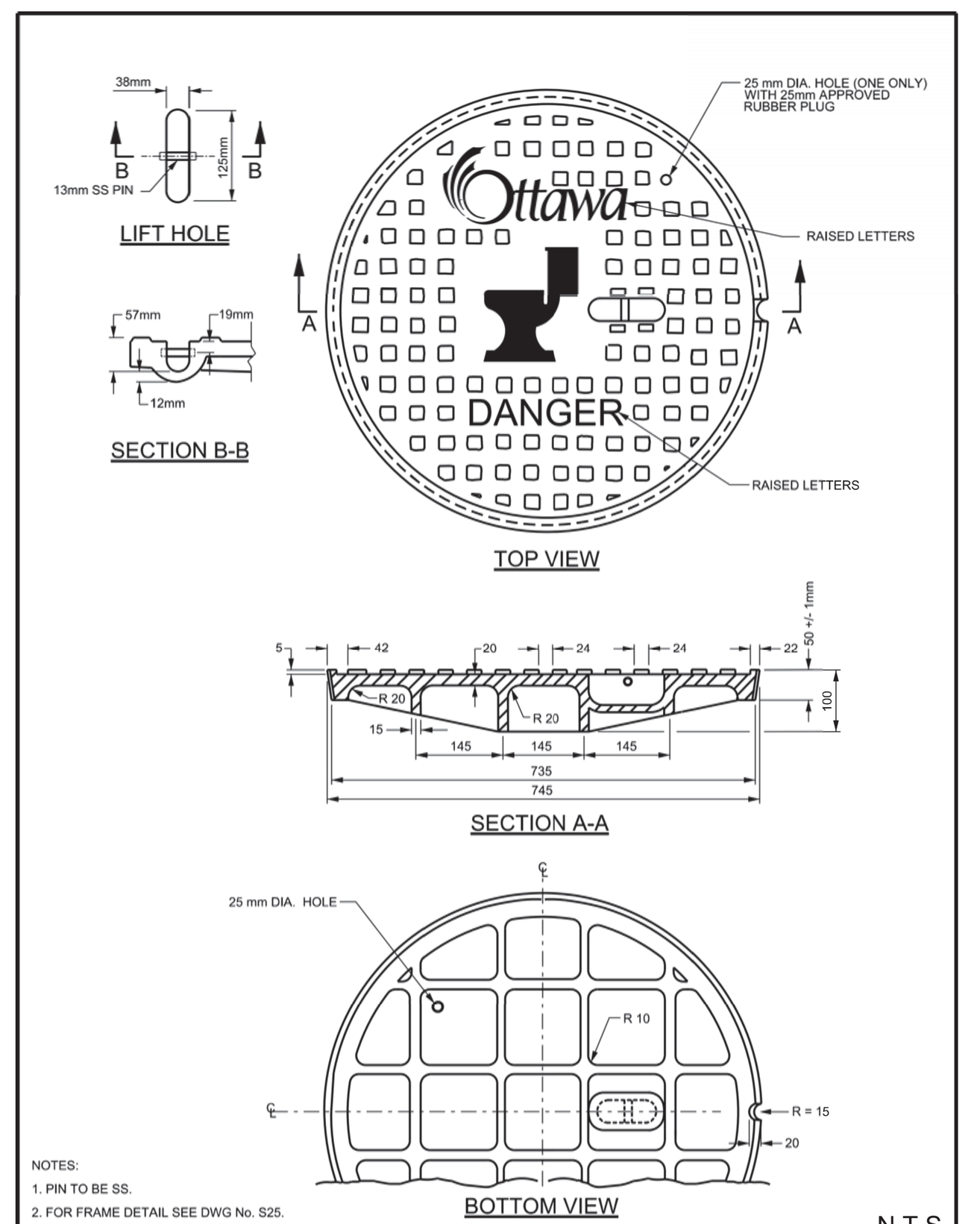
N.T.S.

Ottawa — FOUNDATION DRAIN BACKWATER VALVE INSTALLATION — DATE: DEC. 2002 — REV. DATE: MARCH 2011 — DWG. No.: S14



NOTES:
1. ALL DIMENSIONS SHOWN ARE FOR FINISHED CASTINGS ONLY. PATTERN MAKERS AND CASTING SHOP SHOULD MAKE ALLOWANCES ACCORDINGLY.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
3. FOR NEW CONSTRUCTION WHERE SURFACE INLETS ARE SPECIFIED.
4. COMPANIES WITH GRATE DIMENSIONS NOT EXACTLY THE SAME AS SHOWN ABOVE WILL ALSO BE CONSIDERED.
5. ALTERNATE SOLID COVER TO HAVE EYE 25mm Dia. HOLE WITH 25mm APPROVED PLUG

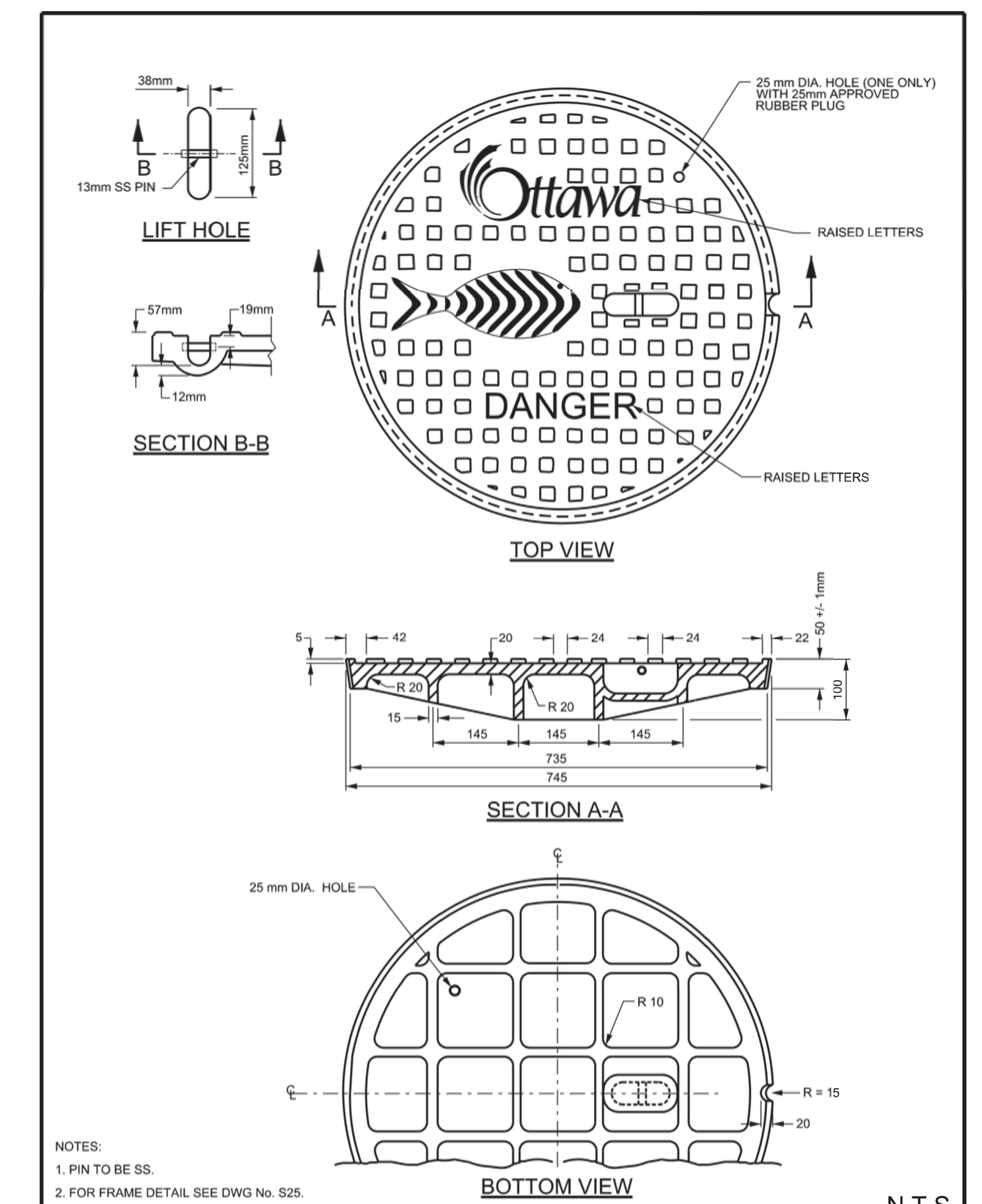
Ottawa — HEAVY DUTY "FISH" TYPE ROUND CATCH BASIN COVER (MODIFIED OPSD-400.07) — DATE: MAY 2005 — REV. DATE: MARCH 2017 — DWG. No.: S19



NOTES:
1. PIN TO BE SS.
2. FOR FRAME DETAIL SEE DWG No. S25.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

N.T.S.

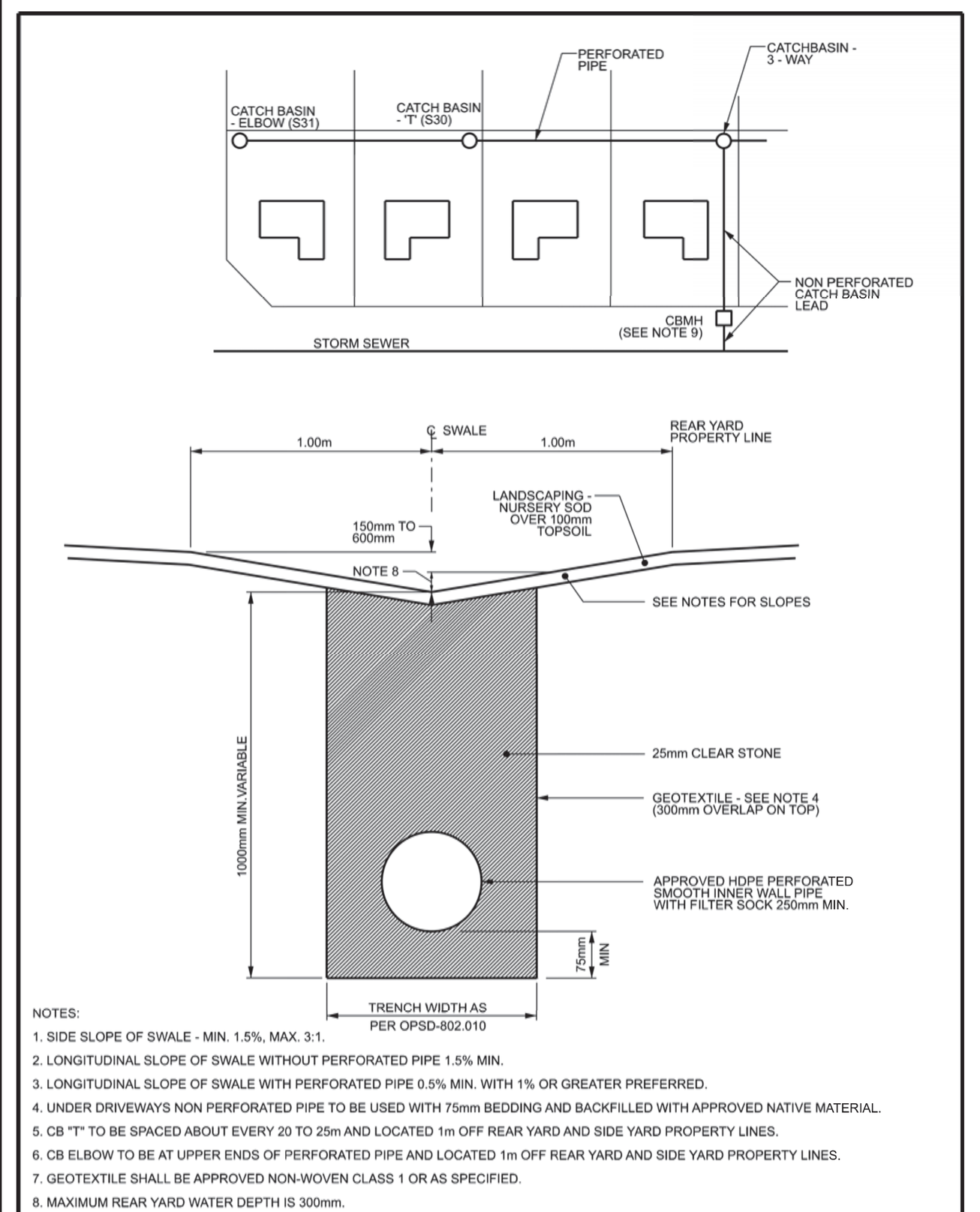
Ottawa — STANDARD CIRCULAR SANITARY & COMBINED MAINTENANCE HOLE COVER — DATE: MARCH 2008 — REV. DATE: MARCH 2017 — DWG. No.: S24



NOTES:
1. PIN TO BE SS.
2. FOR FRAME DETAIL SEE DWG No. S25.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

N.T.S.

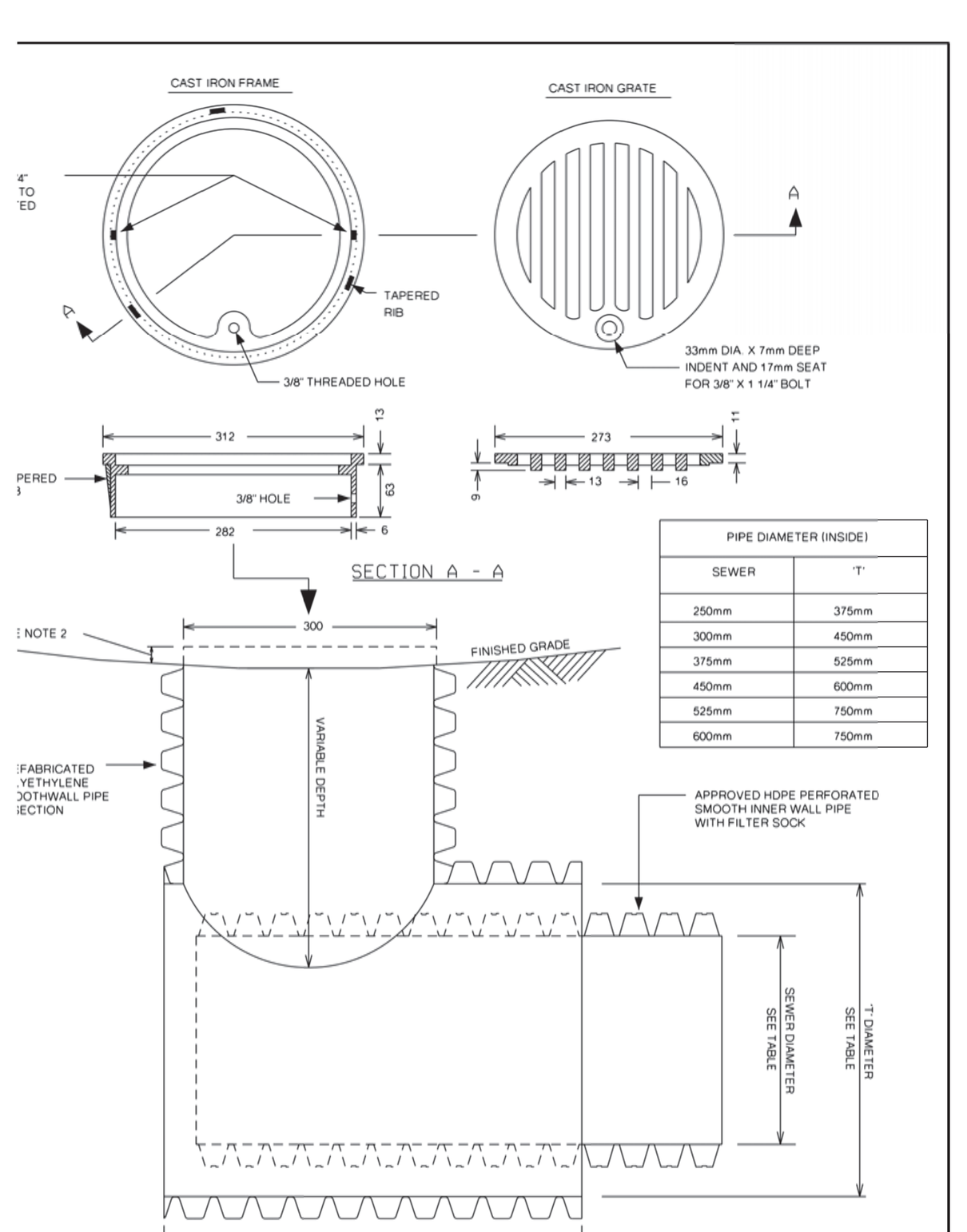
Ottawa — STANDARD CIRCULAR STORM MAINTENANCE HOLE COVER — DATE: MARCH 2010 — REV. DATE: MARCH 2017 — DWG. No.: S24.1



NOTES:
1. SIDE SLOPE OF SWALE - MIN. 1.5%, MAX. 3:1.
2. LONGITUDINAL SLOPE OF SWALE WITHOUT PERFORATED PIPE 1.5% MIN.
3. LONGITUDINAL SLOPE OF SWALE WITH PERFORATED PIPE 0.5% MIN. WITH 1% OR GREATER PREFERRED.
4. UNDER DRIVEWAYS NON PERFORATED PIPE TO BE USED WITH 75mm BEDDING AND BACKFILLED WITH APPROVED NATIVE MATERIAL.
5. CB "T" TO BE SPACED ABOUT EVERY 20 TO 25m AND LOCATED 1m OFF REAR YARD AND SIDE YARD PROPERTY LINES.
6. CB ELBOW TO BE AT UPPER ENDS OF PERFORATED PIPE AND LOCATED 1m OFF REAR YARD AND SIDE YARD PROPERTY LINES.
7. GEOTEXTILE SHALL BE APPROVED NON-WOVEN CLASS 1 OR AS SPECIFIED.
8. MAXIMUM REAR YARD WATER DEPTH IS 300mm.
9. A STANDARD CATCHBASIN NO DEEPER THAN 2.4m OR A CATCHBASIN MAINTENANCE HOLE. STANDARD FRAMES C/W PERFORATED OR SOLID COVER AS SPECIFIED. STANDARD ICD'S AS SPECIFIED

N.T.S.

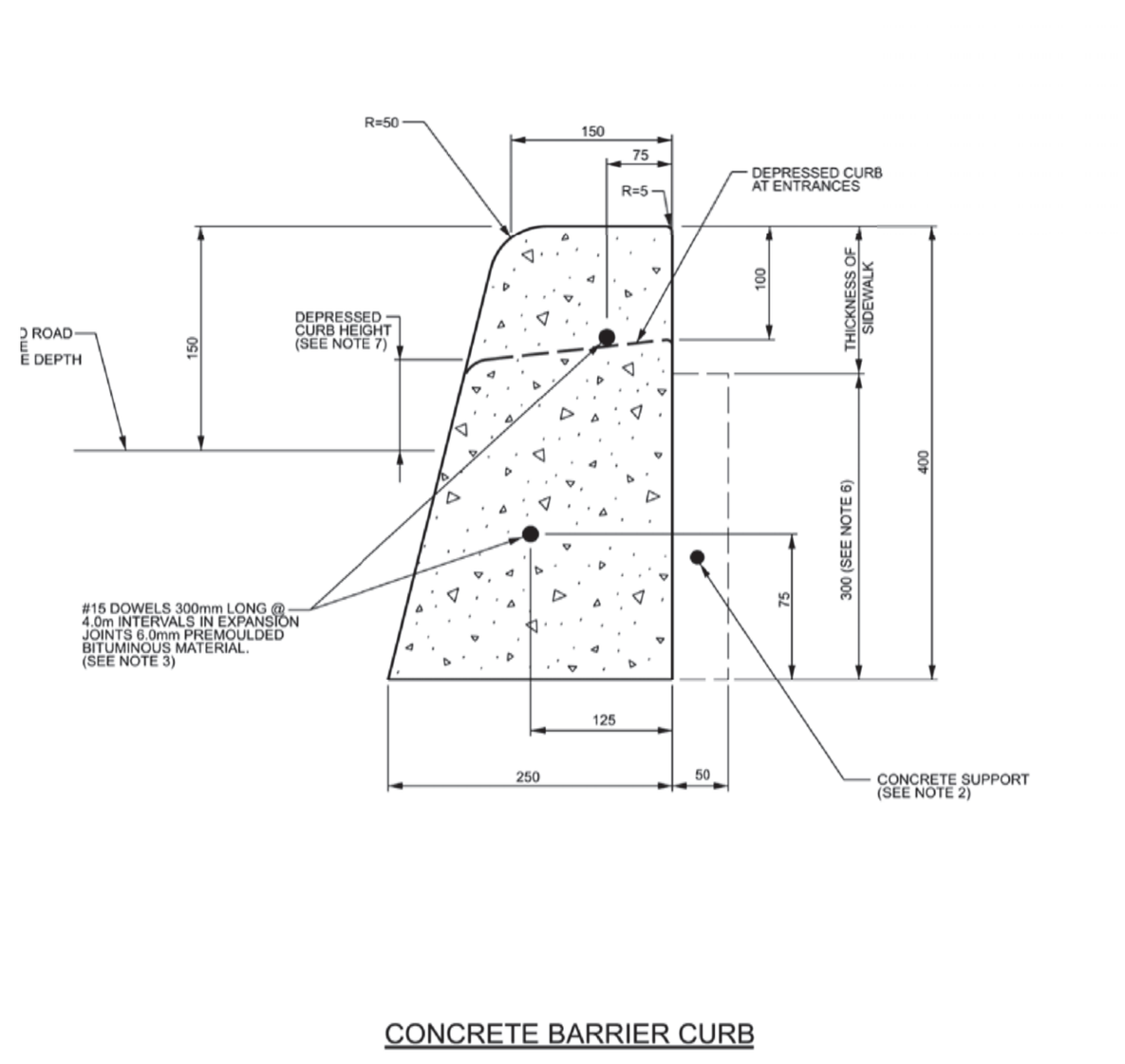
Ottawa — PERFORATED PIPE INSTALLATION FOR REAR YARD AND LANDSCAPING APPLICATIONS — DATE: MARCH 2007 — REV. DATE: MARCH 2019 — DWG. No.: S29



PIPE DIAMETER (INSIDE)	
SEWER	'T'
250mm	375mm
300mm	450mm
375mm	525mm
450mm	600mm
525mm	750mm
600mm	750mm

...DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN
...DITCHED PIPE APPLICATIONS, TOP OF CB SHALL BE MIN. 5cm ABOVE BOTTOM OF THE DITCH/SWALE AND BE LOCATED 2m FROM EDGE OF PAVEMENT.
...N NON PERFORATED PIPE IS USED, MATCH THE 'T's HORIZONTAL OPENING DIAMETERS TO THE PIPE DIAMETER CONNECT WITH MANUFACTURER RECOMMENDED CONNECTION SLEEVE
...MS-22.15 FOR ALTERNATE APPROVED FITTING MANUFACTUERS.

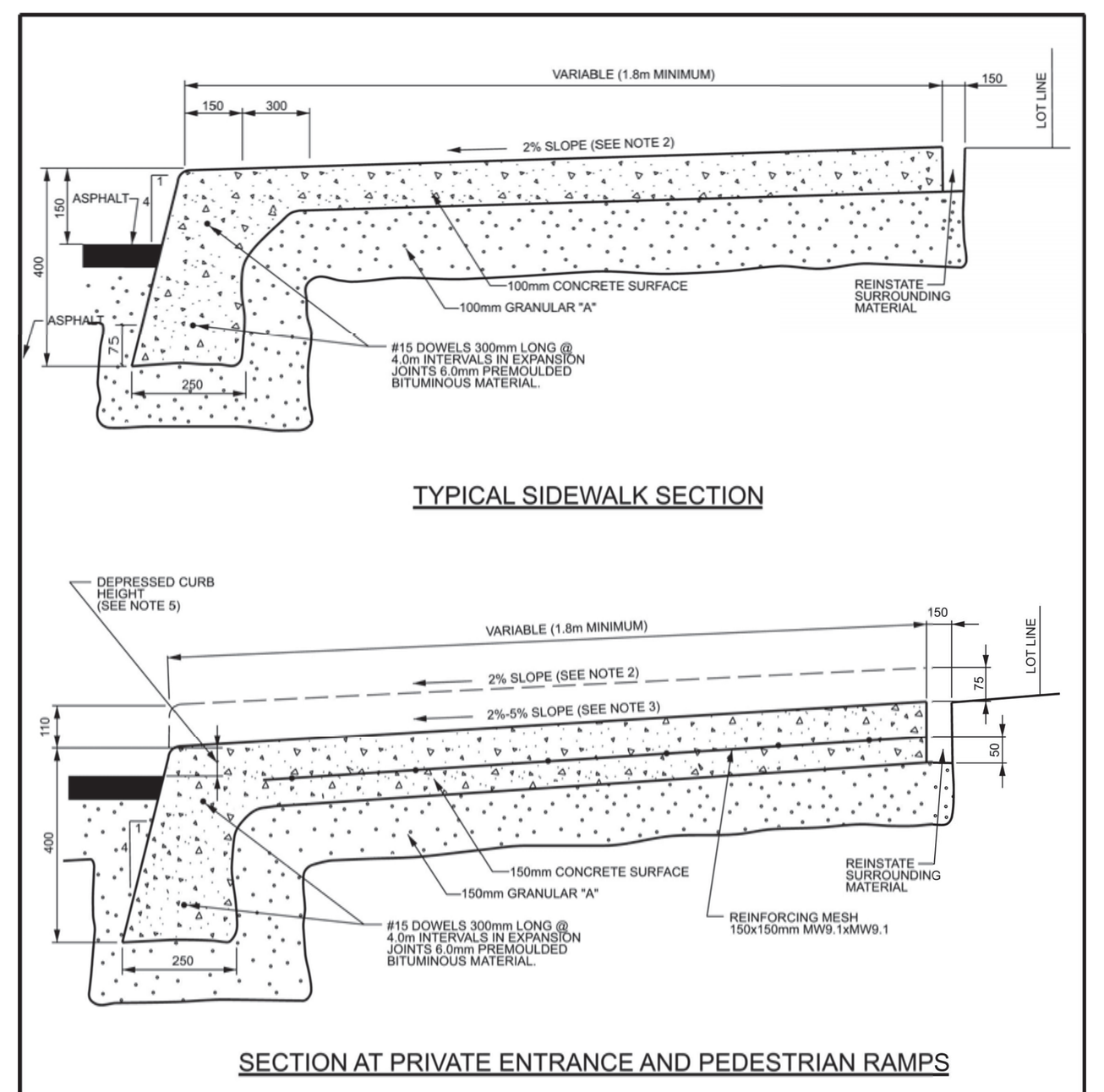
Ottawa — CATCH BASIN - ELBOW FOR REAR YARD DITCHED PIPE — DATE: MARCH 2007 — REV. DATE: MARCH 2019



...LL CURB DEPTH SHALL BE CARRIED THROUGH THE DEPRESSED ACCESS CROSSING.
...CRETE SUPPORT IS REQUIRED WHEN BUILT ADJACENT TO THE SIDEWALK.
...XTRUSION CURBING MACHINE IS USED, ...PANSION BITUMINOUS MATERIAL AND THE #15 DOWELS ARE TO BE PLACED AT THE END OF THE EXTRUSION.
...MENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
...Y JOINTS SHALL BE 25mm DEEP, FRONT, BACK AND TOP OF SECTION AT 4m SPACING OR MATCH JOINTING WHERE SIDEWALK IS ADJACENT.
...EPRESSED CURB AT ENTRANCES USE 250.
...SSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6 mm AND FOR PRIVATE ENTRANCES 0 TO 13mm.

N.T.S.

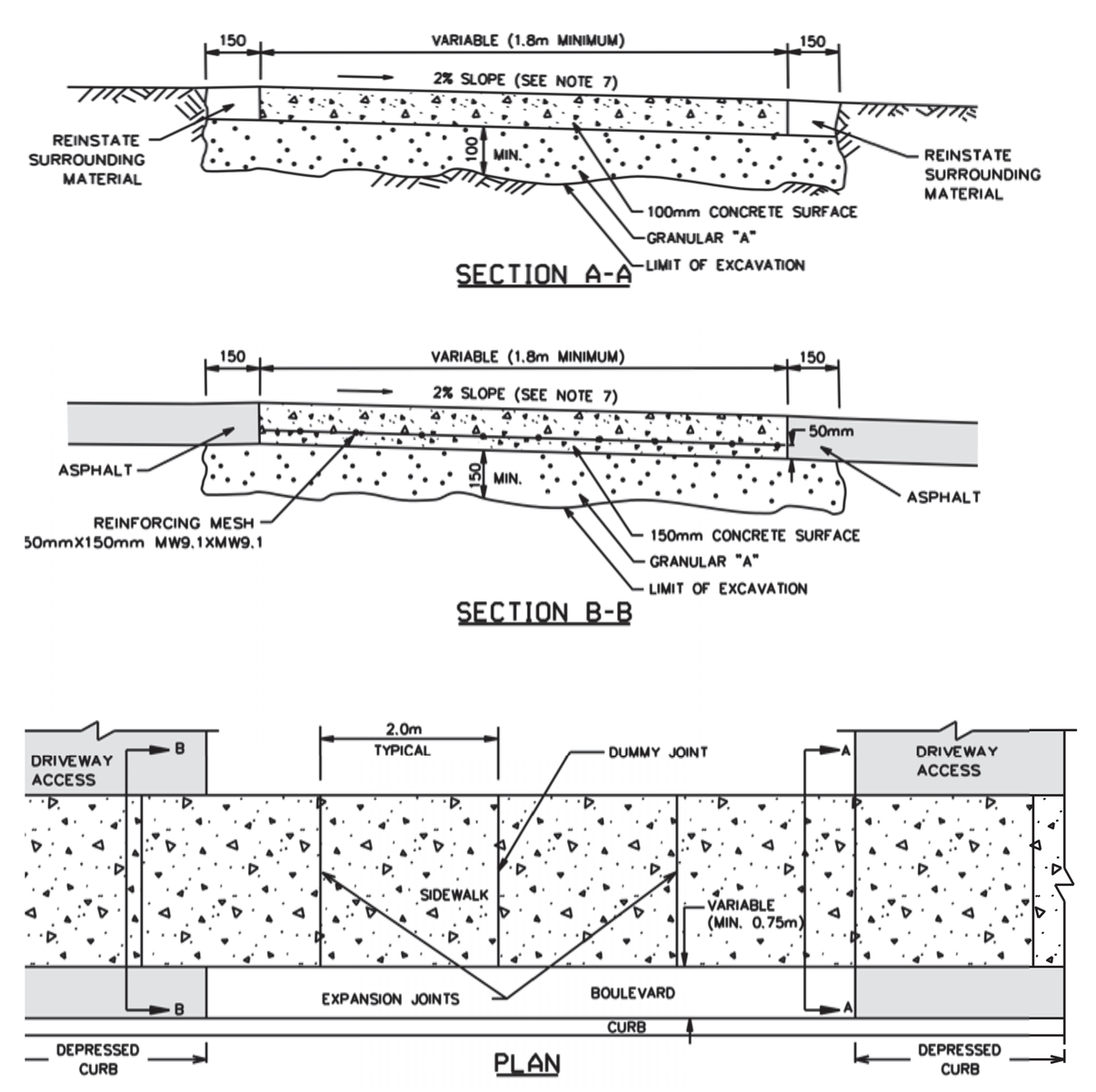
Ottawa — CONCRETE BARRIER CURB FOR GRANULAR BASE PAVEMENT (MODIFIED OPSD-600.110) — DATE: JANUARY 2003 — REV. DATE: MARCH 2021 — DWG. No.: SC1.1



NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. THE MAXIMUM SLOPE IS NOT TO EXCEED 2%.
3. FOR CURB RAMPS, SLOPE OF 2% TO 5%, MAXIMUM 8%.
4. EXPANSION AND DUMMY JOINTS AS PER SC5.
5. DEPRESSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6 mm AND FOR PRIVATE ENTRANCES 0 TO 13 mm.

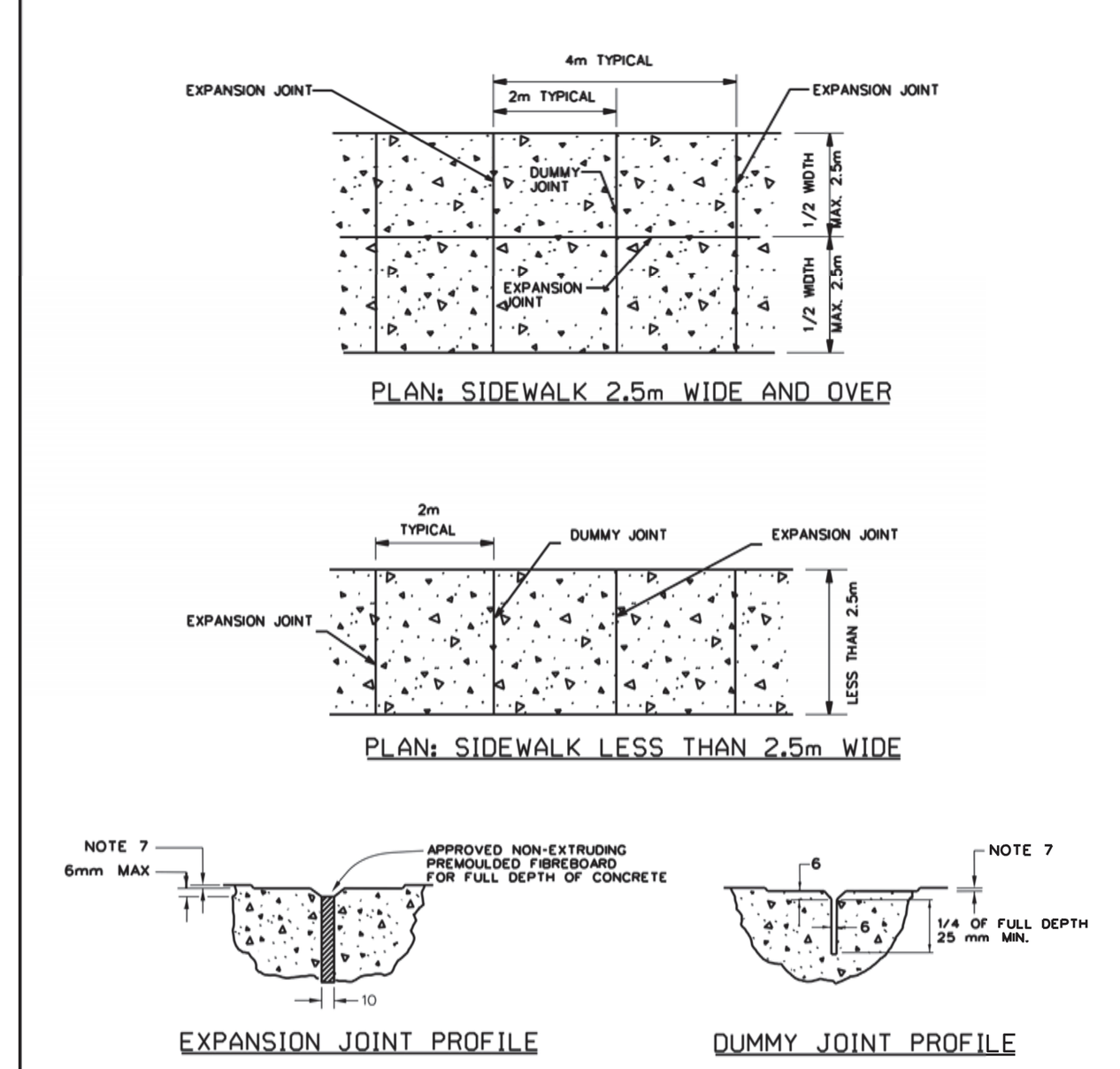
N.T.S.

Ottawa — MONOLITHIC CONCRETE CURB AND SIDEWALK — DATE: MAY 2001 — REV. DATE: MAY 2021 — DWG. No.: SC2



...TES:
...NCRETE AND GRANULAR "A" IS TO BE INCREASED TO 150mm AT THE ENTRANCE AND 150x150mm MW9.1 x MW9.1 ...INFORCING MESH IS TO BE PLACED MID DEPTH WITHIN DRIVEWAY ACCESS.
...ANSVERSE EXPANSION JOINTS ARE REQUIRED AT THE ENDS, THE MIDPOINT, AT INTERVALS OF 4m MAXIMUM, AND ALSO ...) ISOLATE OBSTRUCTIONS FROM SIDEWALK, HYDRANTS, POLES, BUILDINGS, ETC.
...HEN THE OVERALL SIDEWALK WIDTH EXCEEDS 2.5m, A LONGITUDINAL CONSTRUCTION JOINT SHALL BE CREATED AT ITS ...IDPOINT.
...DGES AND JOINTS ARE TO BE FINISHED WITH A 75mm EDGING TOOL.
...L CONCRETE SIDEWALKS ARE TO HAVE A BROOM FINISH UNLESS OTHERWISE SPECIFIED.
...L DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
...E MAXIMUM SLOPE IS NOT TO EXCEED 2%.
...STALL DUMMY TRANSVERSE JOINTS AS REQUIRED SO THERE IS A MAXIMUM SPACING OF 2m BETWEEN ALL JOINTS.
...DEWALK NOT TO BE DEPRESSED ACROSS DRIVEWAY ACCESSES.
...XPANSION AND DUMMY JOINTS AS PER SC5

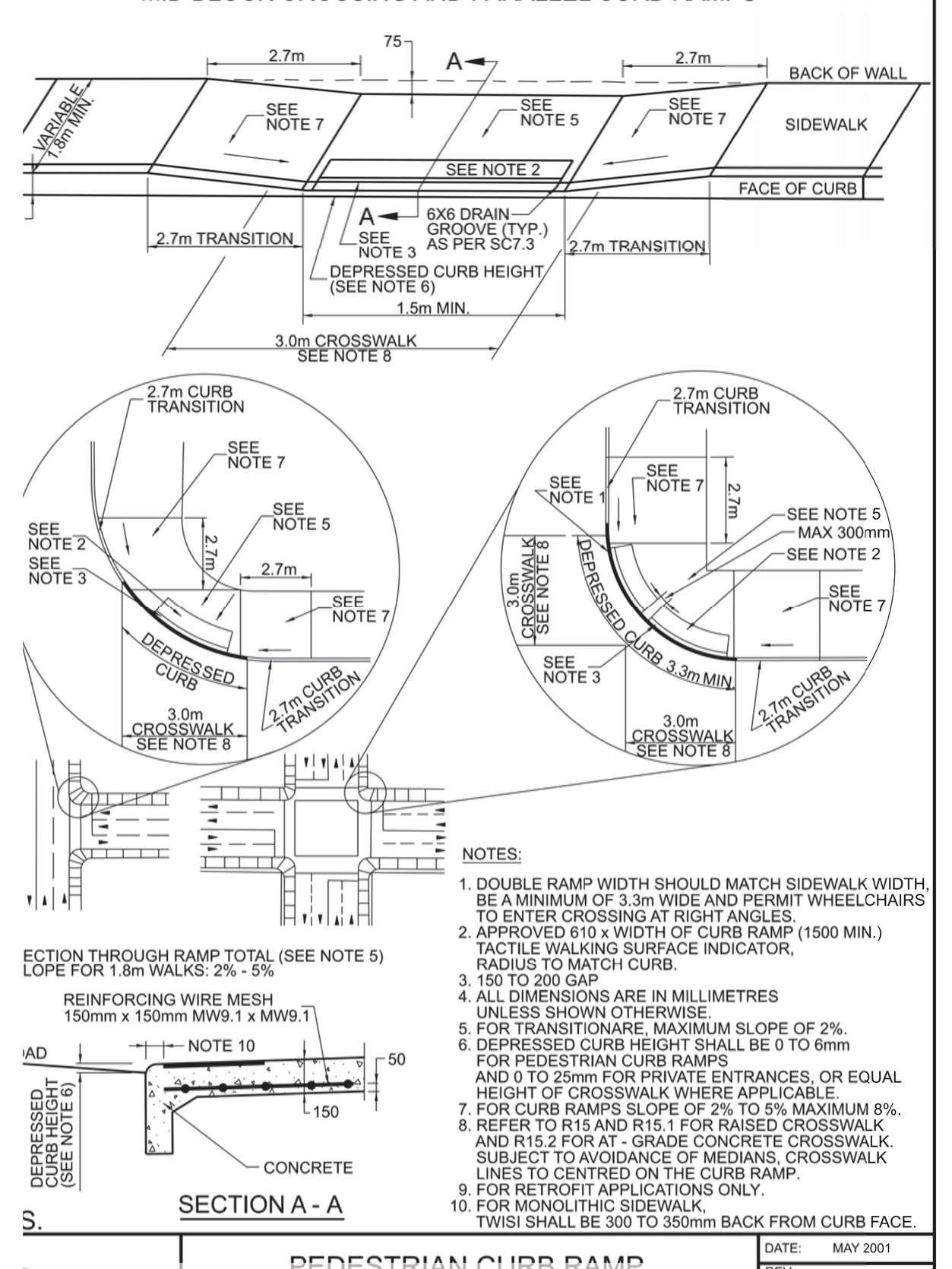
Ottawa — TYPICAL CONCRETE SIDEWALK IN BOULEVARD — DATE: MAY 2001 — REV. DATE: MARCH 2016 — DWG. No.: SC4



NOTES:
1. EXPANSION JOINTS IN SIDEWALK SHALL BE IN LINE WITH EXPANSION JOINTS IN CURB.
2. TRANSVERSE EXPANSION JOINTS ARE REQUIRED AT THE ENDS, THE MIDPOINT, AT INTERVALS OF 4m MAXIMUM, AND ALSO TO ISOLATE OBSTRUCTIONS FROM SIDEWALK, HYDRANTS, POLES, BUILDINGS, ETC.
3. EDGES AND JOINTS ARE TO BE FINISHED WITH A 75mm EDGING TOOL.
4. ALL CONCRETE SIDEWALKS ARE TO HAVE A BROOM FINISH UNLESS OTHERWISE SPECIFIED.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
6. INSTALL DUMMY TRANSVERSE JOINTS AS REQUIRED SO THERE IS A MAXIMUM SPACING OF 2m BETWEEN ALL JOINTS.
7. SMOOTH ALL TOOLED EDGES TO A MAXIMUM DEPTH OF 1mm.

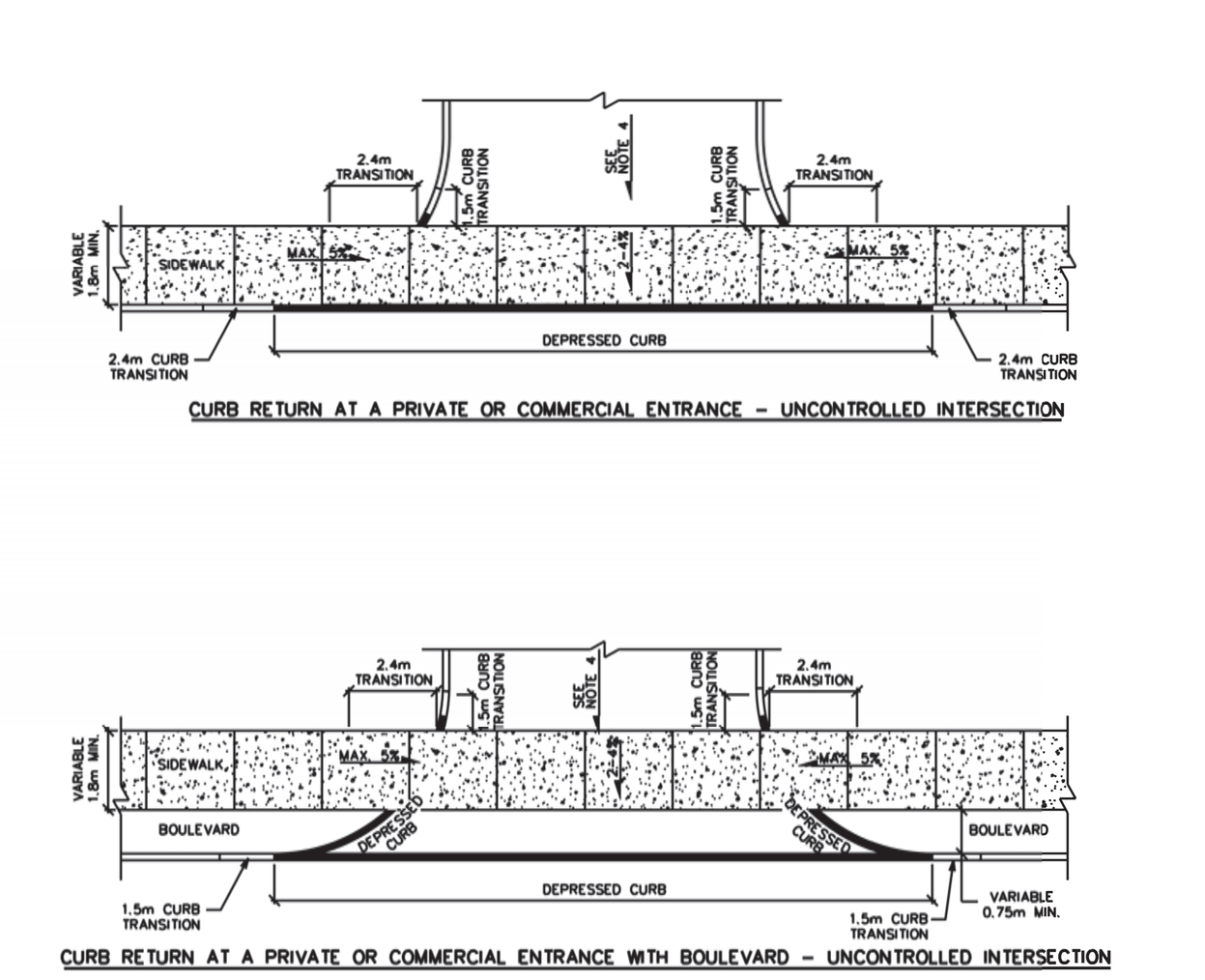
Ottawa — SIDEWALK CONSTRUCTION JOINTS — DATE: MAY 2001 — REV. DATE: MARCH 2016 — DWG. No.: SC5

MID BLOCK CROSSING AND PARALLEL CURB RAMPS



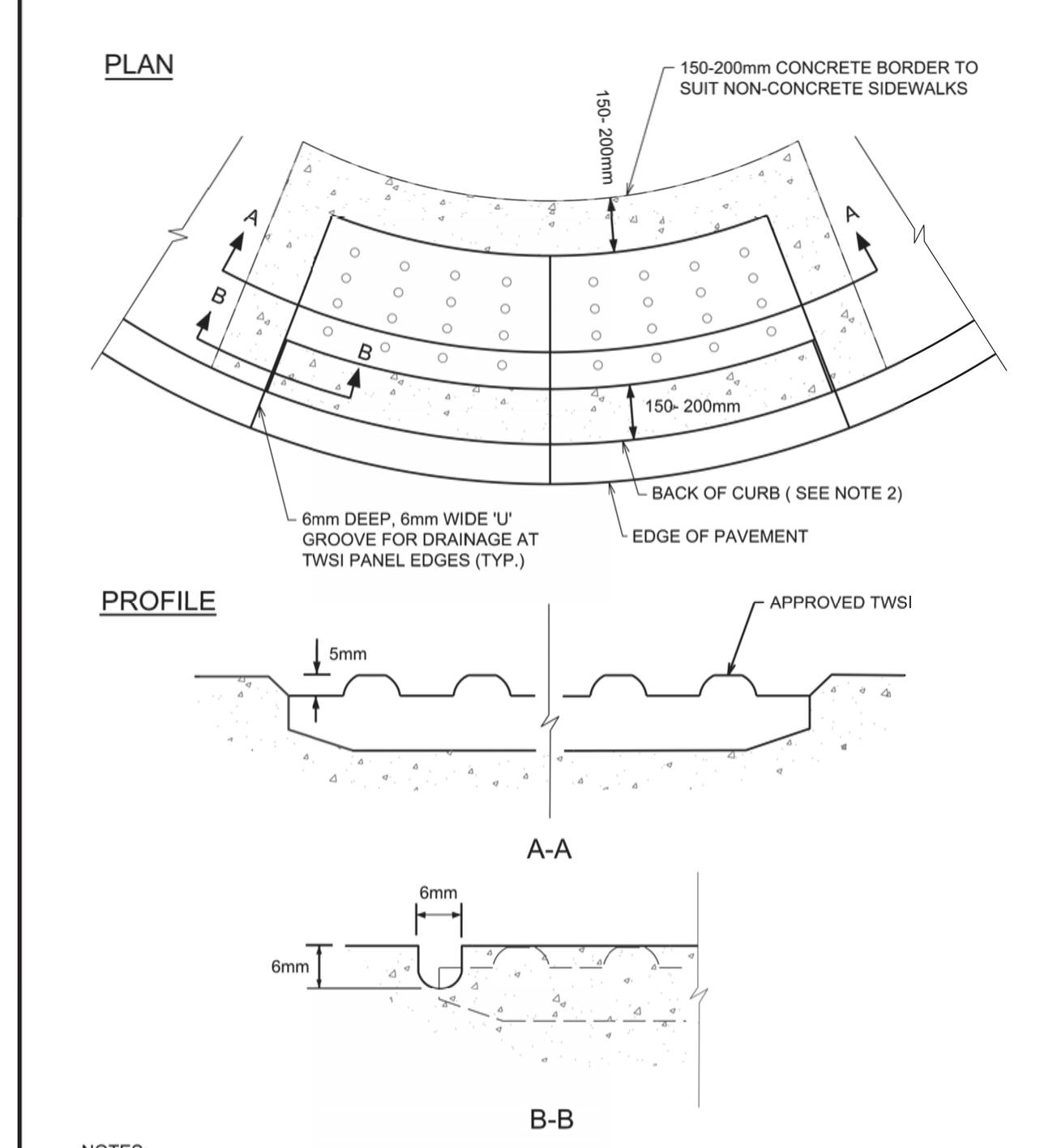
NOTES:
1. DOUBLE RAMP WIDTH SHOULD MATCH SIDEWALK WIDTH, BE A MINIMUM OF 3.3m WIDE AND PERMIT WHEELCHAIRS TO ENTER CROSSING AT RIGHT ANGLES.
2. APPROVED 610 x WIDTH OF CURB RAMP (1500 MIN.) TACTILE WALKING SURFACE INDICATOR, RADIUS TO MATCH CURB.
3. 150 TO 200 GAP
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
5. FOR TRANSITIONARE, MAXIMUM SLOPE OF 2%.
6. DEPRESSED CURB HEIGHT SHALL BE 0 TO 6mm FOR PEDESTRIAN CURB RAMPS AND 0 TO 25mm FOR PRIVATE ENTRANCES, OR EQUAL HEIGHT OF CROSSWALK WHERE APPLICABLE.
7. FOR CURB RAMPS SLOPE OF 2% TO 5% MAXIMUM 8%.
8. REFER TO R15 AND R15.1 FOR RAISED CROSSWALK AND R15.2 FOR AT - GRADE CONCRETE CROSSWALK.
9. SUBJECT TO AVOIDANCE OF MEDIANS, CROSSWALK LINES TO CENTRED ON THE CURB RAMP.
9. FOR RETROFIT APPLICATIONS ONLY.
10. FOR MONOLITHIC SIDEWALK, TWISI SHALL BE 300 TO 350mm BACK FROM CURB FACE.

Ottawa — PEDESTRIAN CURB RAMP WITHOUT BOULEVARD — DATE: MAY 2001 — REV. DATE: MARCH 2022 — DWG. No.: SC6



NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. CURB DETAILS SEE SC1.1, SC1.2 AND SC1.3.
3. SIDEWALK DETAILS SEE SC2 AND SC3.
4. MAXIMUM SLOPE VARIES, SEE PRIVATE APPROACH BYLAW.
5. UNCONTROLLED INTERSECTION MEANS AN ENTRANCE NOT LOCATED AT A TRAFFIC SIGNAL OR ALL-WAY STOP CONTROL.

Ottawa — CURB RETURN ENTRANCES - UNCONTROLLED INTERSECTIONS — DATE: MARCH 2007 — REV. DATE: MARCH 2021 — DWG. No.: SC7.1

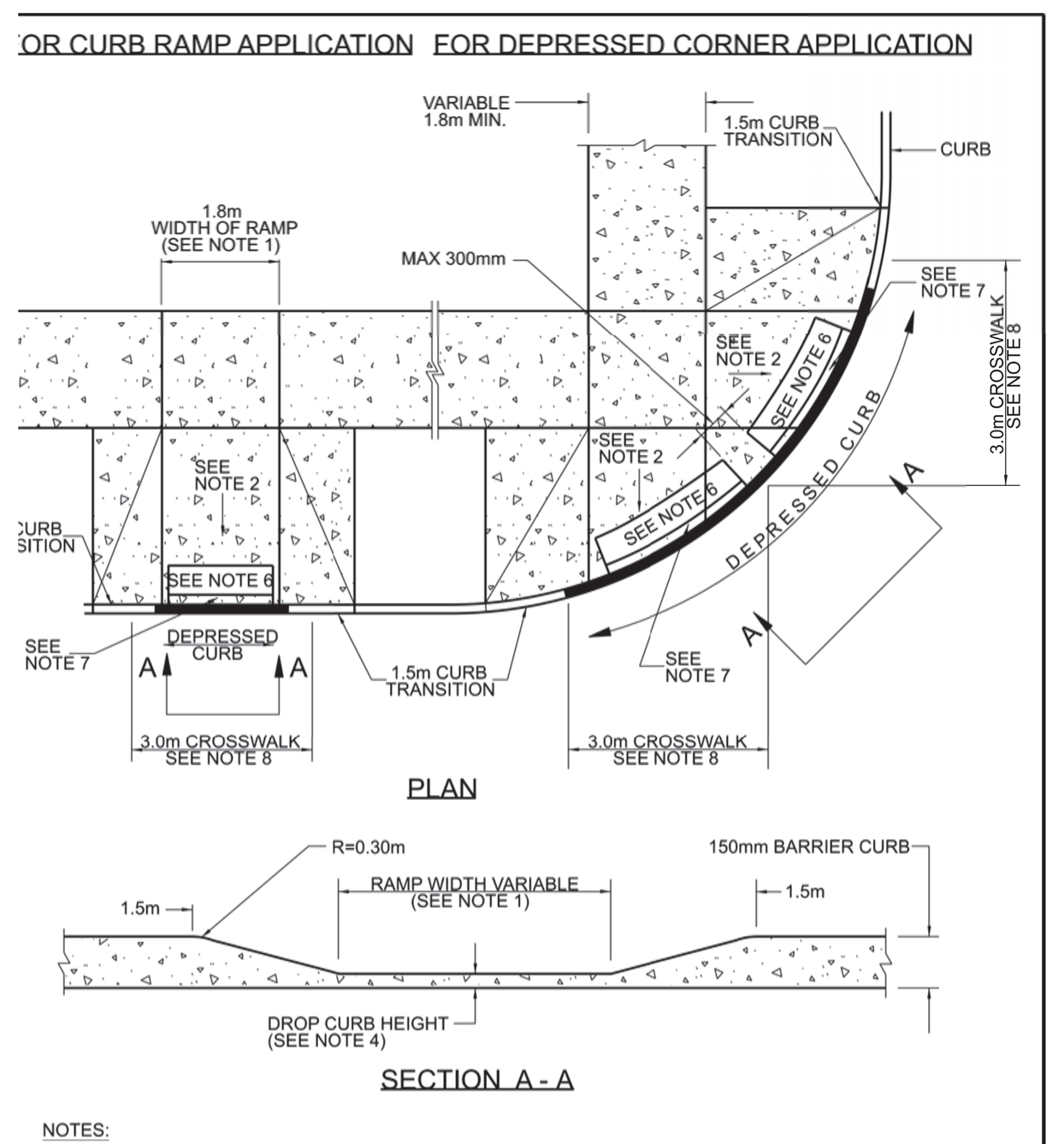


NOTES:
1. TOPS OF TWSI'S (TACTILE WALKING SURFACE INDICATOR) SHALL BE ALIGNED & LEVEL WITH THE ADJACENT CONCRETE SURFACE & INSTALLATION IN WET CONCRETE SHALL BE EFFECTIVE IN PERMANENTLY SECURING THE TWSI IN PLACE ONCE DRY.
2. FOR MONOLITHIC SIDEWALKS, TWSI SHALL BE 300 TO 350mm BACK FROM THE CURB FACE.

N.T.S.

Ottawa — TWSI DETAIL — DATE: MARCH 2015 — REV. DATE: MARCH 2016 — DWG. No.: SC7.3

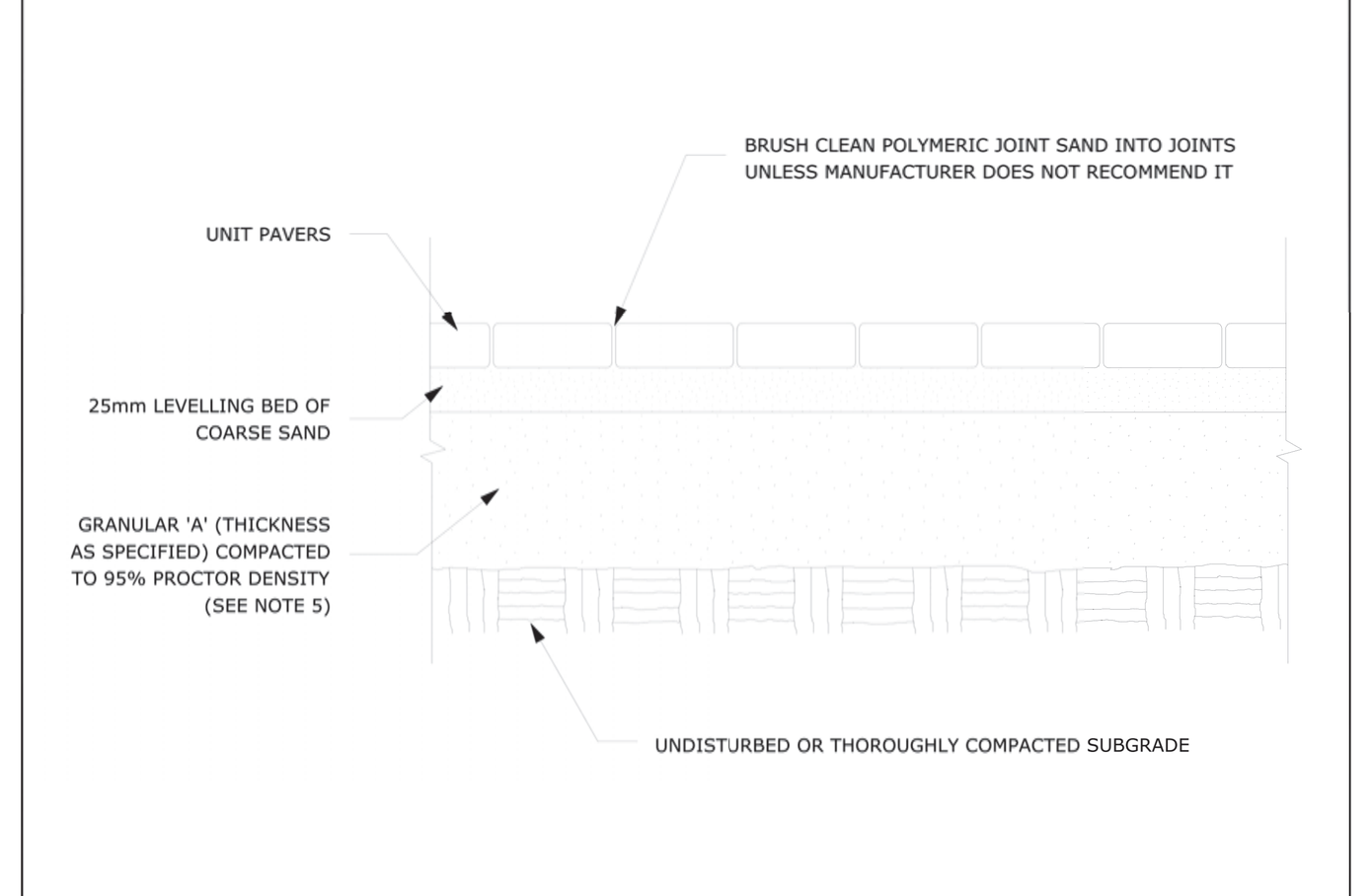
...OR CURB RAMP APPLICATION FOR DEPRESSED CORNER APPLICATION



NOTES:
1. CURB RAMP WIDTH MATCH SIDEWALK WIDTH, BE A MINIMUM OF 1.5m WIDE.
2. FOR CURB RAMPS SLOPE OF 2% TO 5% MAXIMUM 8%.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
4. DEPRESSED CURB HEIGHT SHALL BE 0 TO 6mm FOR PEDESTRIAN CURB RAMPS AND 0 TO 25mm FOR PRIVATE ENTRANCES, OR EQUAL HEIGHT OF CROSSWALK WHERE APPLICABLE.
5. SUBJECT TO AVOIDANCE OF MEDIANS, CROSSWALK LINES TO CENTRED ON THE CURB RAMP.
6. APPROVED 610 x WIDTH OF CURB RAMP (1500 MIN.) TACTILE WALKING SURFACE INDICATOR (TWSI), RADIUS TO MATCH CURB. ALL TWSI'S SHALL HAVE 6mm WIDE AND 6mm DEEP DRAIN GROOVES AT CORNERS BETWEEN TWSI AND CURB. PANEL JOINTS MAY BE ADAPTED FOR USE IF TOUCHING. TOP OF TWSI SHALL BE ALIGNED AND LEVEL WITH ADJACENT SURFACE.
7. 150 TO 200 GAP FOR MONOLITHIC SIDEWALK, TWSI SHALL BE 300 TO 350mm BACK FROM CURB SURFACE.
8. REFER TO R15 AND R15.1 FOR RAISED CROSSWALK AND R15.2 AT - GRADE CONCRETE CROSSWALK.

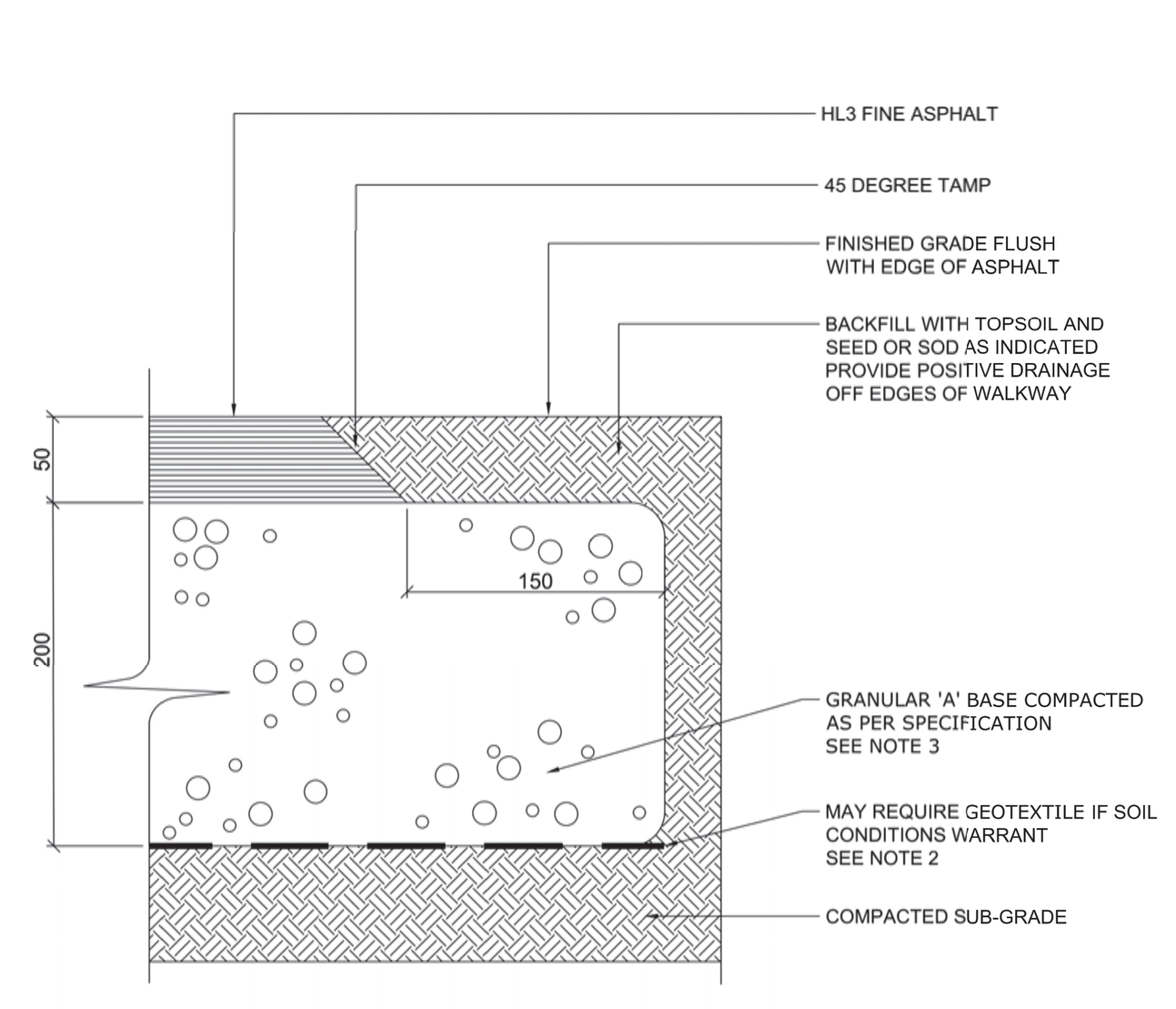
N.T.S.

Ottawa — PEDESTRIAN CURB RAMP WITH BOULEVARD — DATE: MAY 2001 — REV. DATE: MARCH 2022 — DWG. No.: SC7



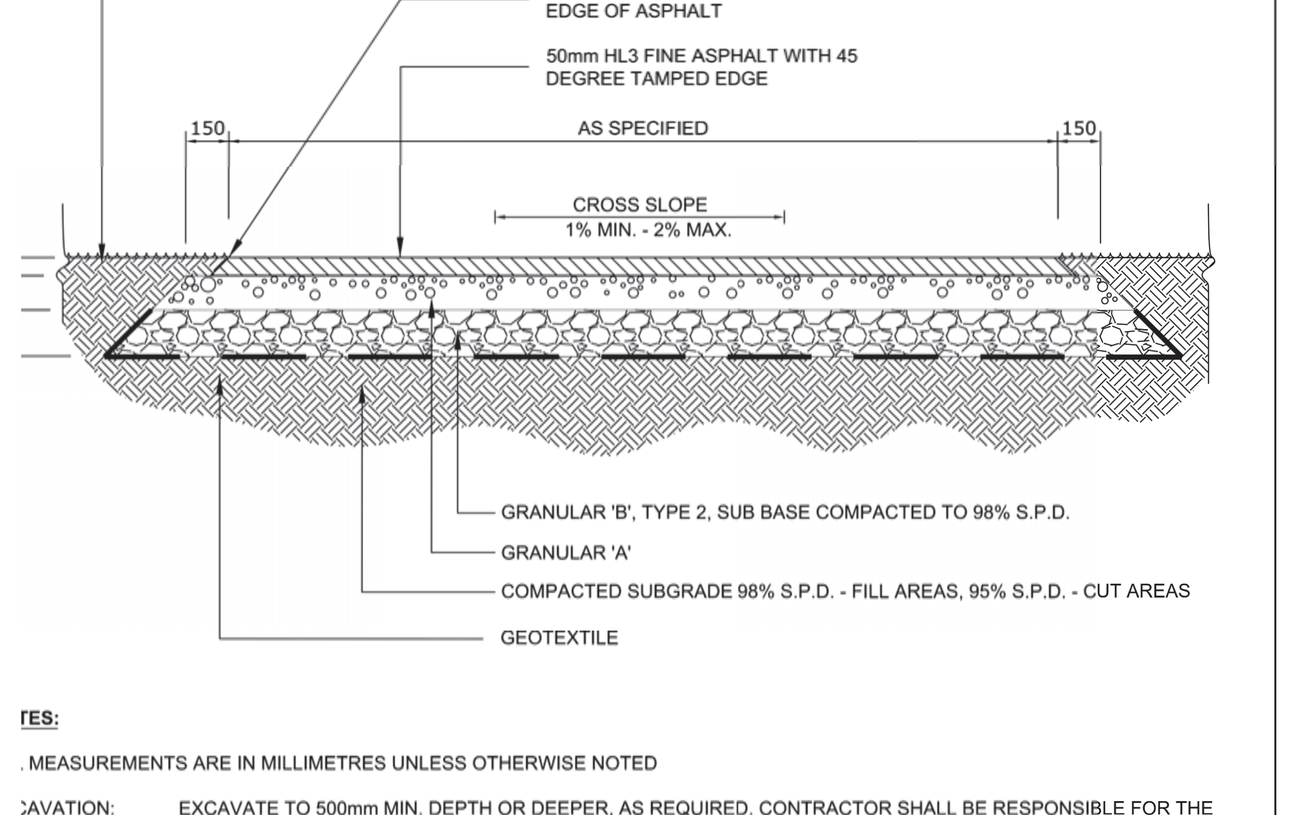
NOTES:
1. THE LEVELING COURSE (BEDDING SAND) SHALL BE PLACED LOOSE, IN A UNIFORM LAYER AT A MAXIMUM DEPTH OF 25mm TO ACHIEVE THE FINAL COMPACTED THICKNESS AND GRADE AS SPECIFIED
2. INSTALL SOLID EDGE RESTRAINT BETWEEN UNIT PAVERS AND ANY SOFT SURFACE (SOD, PLANTING BED, ETC.)
3. UNIT PAVERS ARE THEN PLACED ON TOP OF THE LEVELING COURSE AND ADDITIONAL SAND SWEPT BETWEEN THE UNIT PAVERS
4. THE UNIT PAVERS ARE THEN VIBRATED INTO PLACE WITH A VIBRA-PLATE AND WATER IS ADDED TO ASSIST IN THE SETTLING OF THE JOINT SAND
5. GRANULAR 'A' DEPTH TO BE 100mm FOR PEDESTRIAN AREAS AND 150mm FOR VEHICULAR ACCESSES. OR AS RECOMMENDED BY GEOTECHNICAL INVESTIGATION
6. USE OF THIS DETAIL REQUIRES THE PRIOR APPROVAL OF THE GENERAL MANAGER

Ottawa — TITLE: UNIT PAVING - ON GRANULAR BASE — DATE: MAY 2001 — REV: FEB 2016 — DWG No: SC9



NOTE:
1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
2. CROSS SLOPE SIDEWALK 1 TO 2% IN DIRECTION OF NATURAL DRAINAGE TO PROVIDE POSITIVE DRAINAGE OFF ALL WALKS
3. APPROVED NON-WOVEN CLASS 1 GEOTEXTILE AS PER MS-22.15 WHEN WARRANTED BY SOIL CONDITION, SUBJECT TO APPROVAL BY THE CONTRACT ADMINISTRATOR
4. GRANULAR 'A' SHALL MEET THE REQUIREMENTS OF OPSS 1010

TITLE: ASPHALT WALKWAY — DATE: FEB 2013 — REV: FEB 2016 — DWG No: SC20



...TES:
...MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED

...CAVATION: EXCAVATE TO 500mm MIN. DEPTH OR DEEPER, AS REQUIRED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF ANY UNSUITABLE SUBGRADE MATERIAL SUCH AS TOPSOIL. ALL SOFT SPOTS AND/OR ORGANIC MATERIAL AND REPLACEMENT WITH CLEAN SUBSOIL FILL. SUBGRADE SHALL BE CONSOLIDATED TO A 98% S.P.D. REMOVE EXCAVATED MATERIAL OFF SITE UNLESS OTHERWISE DIRECTED

...ANULAR BASE: GRANULAR 'A' - 100% STANDARD PROCTOR DENSITY MIN., GRANULAR B, TYPE 2, SUB BASE GRANULARS TO OPSS

...PHALT: 50 TOP SURFACE LAYER (AFTER COMPACTION) OF HOT MIX HL3 FINE IN ACCORDANCE WITH O.P.S.S. STANDARDS

...GE TREATMENT: ASPHALT EDGE TO BE 45 DEGREES WELL TAMPED TO FORM UNIFORMLY SMOOTH, CLEAN EDGES WITHOUT LATERAL DEVIATIONS. SOD TO FEATHER IN WITH EXISTING SOD AND GRADES AT A MAXIMUM SLOPE OF 4:1. ALL SODDED AREAS SHALL BE 25mm BELOW THE ASPHALT SURFACE. REPLACE ALL TOPSOIL AND SOD AS DIRECTED IN CUT AND FILL SITUATIONS

...AINAGE: SLOPE TO BE A MINIMUM OF 2% ON CROWNED OR CROSS SLOPED PATHS AS DIRECTED ON SITE OR AS SHOWN IN DRAWINGS

...DDING: ALL DISTURBED AREAS ALONG ASPHALT WALKWAYS SHALL BE SODDED OVER 150mm TOPSOIL FOR A MINIMUM DISTANCE OF 900mm

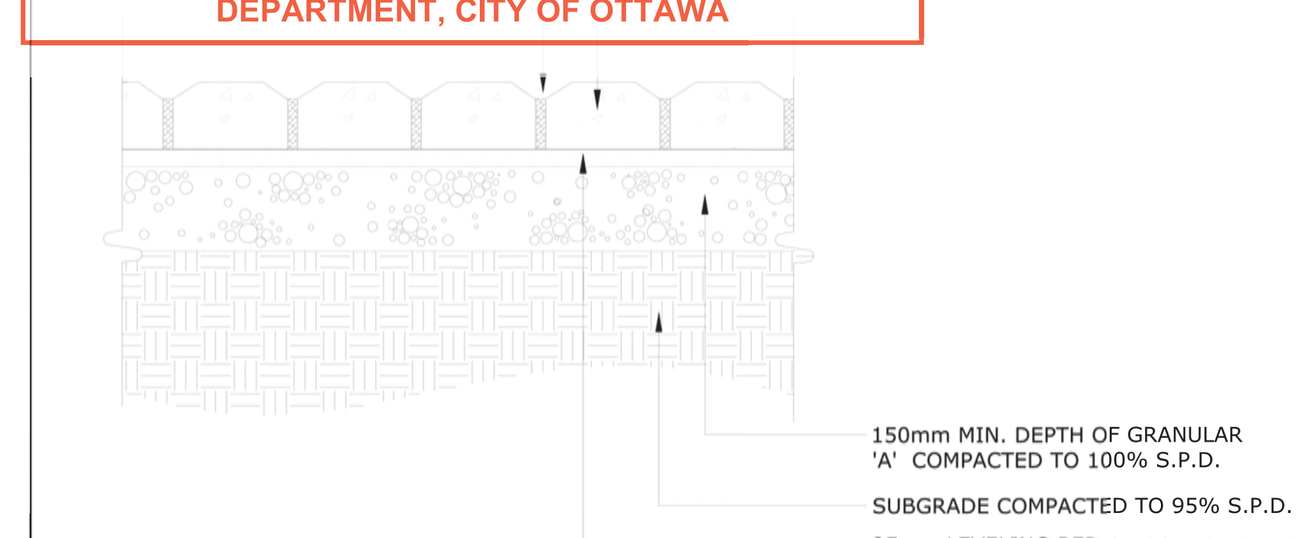
...OTEXTILE: GEOTEXTILE SHALL BE APPROVED NON-WOVEN CLASS 1 GEOTEXTILE AS PER MS-22.15 WHEN WARRANTED BY SOIL CONDITIONS, SUBJECT TO APPROVAL BY THE CONTRACT ADMINISTRATOR

...TE: TO BE CONFIRMED WITH SOIL INVESTIGATIONS AND MODIFIED ACCORDINGLY

TITLE: ASPHALT WALKWAY/ SERVICE ACCESS - HEAVY DUTY — DATE: FEB 2013 — REV: FEB 2016

APPROVED
By Lily Xu at 11:52 am, May 22, 2024

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT, AND BUILDING SERVICES DEPARTMENT, CITY OF OTTAWA



WORKMANSHIP

PERMEABLE PAVERS BY UNILOCK LIMITED OR APPROVED EQUAL.
PAVERS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS WITH TIGHT BUTT JOINTS OF APPROXIMATELY 3mm, ON A SAND BASE. SAW CUT PAVERS AS REQUIRED.
USE AN APPROVED VIBRATORY COMPACTOR IN A CIRCULAR PATTERN.
ALL DAMAGED OR CHIPPED PAVERS MUST BE REPLACED AT THE CONTRACTOR'S COST

PREPARATION

EXCAVATE AND REMOVE ALL TOPSOIL AND UNSTABLE MATERIALS OFF SITE. SUBGRADE TO BE GRADED TO SIMILAR CONTOURS AS FINISH GRADE. COMPACT SUBGRADE TO 95% S.P.D. PLACE 150mm LAYER OF GRANULAR 'A' COMPACTED TO 100% S.P.D.
PLACE MAXIMUM 25mm UNCOMPACTED SAND FOR LEVELING COURSE OR MATERIAL AS RECOMMENDED BY MANUFACTURER

INSTALL PERMEABLE UNITS IN THE PATTERN SPECIFIED ON THE PLAN DRAWING OR PER MANUFACTURER'S PATTERN RECOMMENDATION

ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

Ottawa — TITLE: PERMEABLE PAVING — DATE: FEB 2013 — REV: FEB 2016 — DWG No: SC27

Architect	HDR
Landscape Architect	HDR
Civil Engineer	Parsons
Structural Engineer	EXP
Mechanical Engineer	Smith + Andersen
Electrical Engineer	Smith + Andersen
Plumbing Engineer	Smith + Andersen
Interior Designer	HDR
Equipment Planner	Colliers
Wayfinding	
Sheet Reviewer	Author

MARK	DATE	DESCRIPTION
01	2022-09-23	ISSUED FOR PRE-CONSULTATION
02	2022-10-28	DRAFT FOR 90% SD
03	2022-11-30	ISSUED FOR SPC & FLUDA - 1ST SUBMISSION
04	2022-12-02	ISSUED FOR 3A1-2
05	2023-02-24	ISSUED FOR RFP VERSION 1.0
06	2023-04-12	RE-ISSUED FOR SPC & FLUDA
07	2023-07-28	ISSUED FOR PSOS
08	2023-08-04	RE-ISSUED FOR PSOS
09	2023-09-29	ISSUED FOR REVIEW AND COSTING
10	2023-10-27	ISSUED FOR MOH 3A.3
11	2024-01-17	ISSUED FOR DELEGATED AUTHORITY REPORT

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Sheet Name
STAGE 3: HOSPITAL DETAILS 2

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C117

Project Status
STAGE 3

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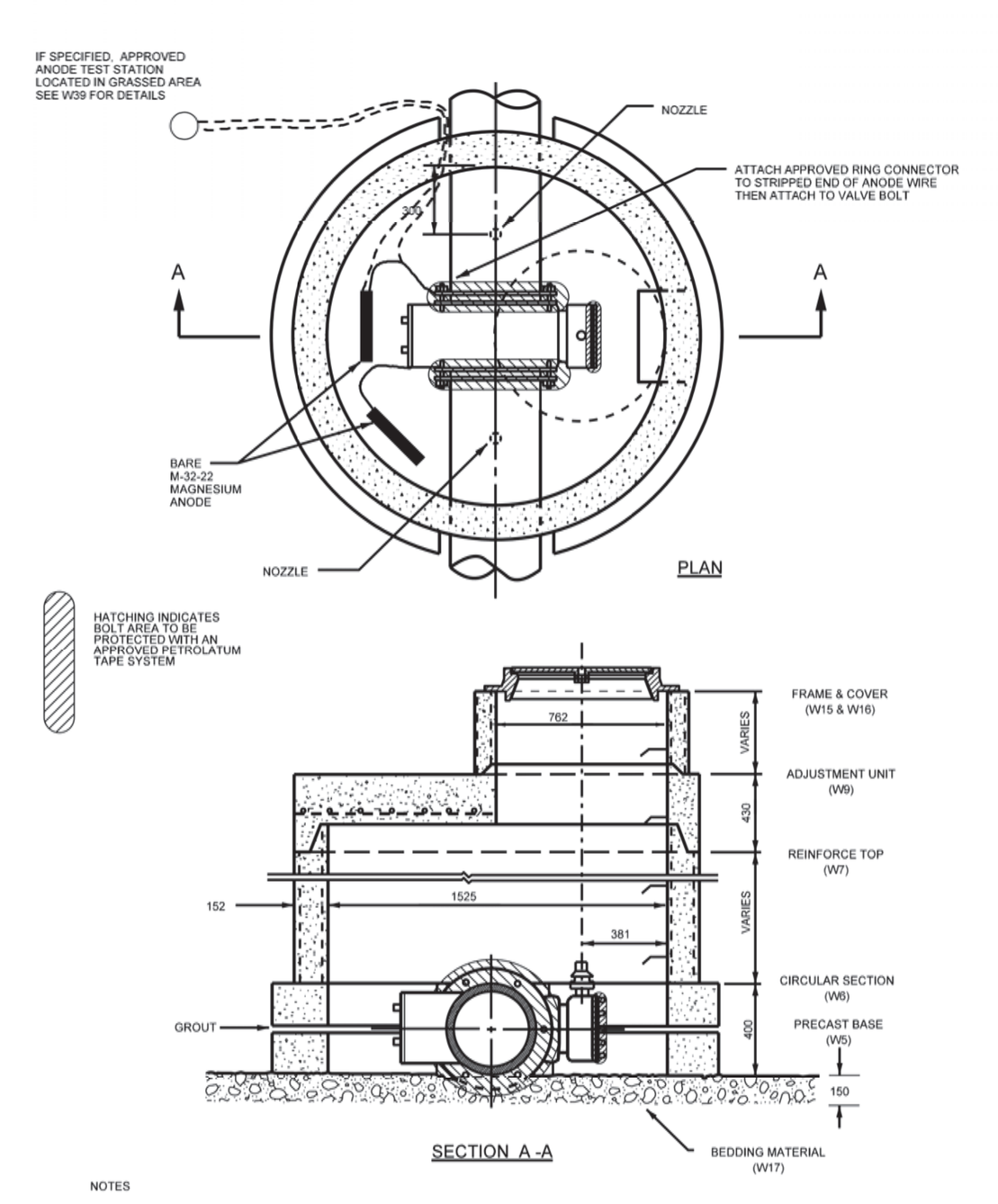
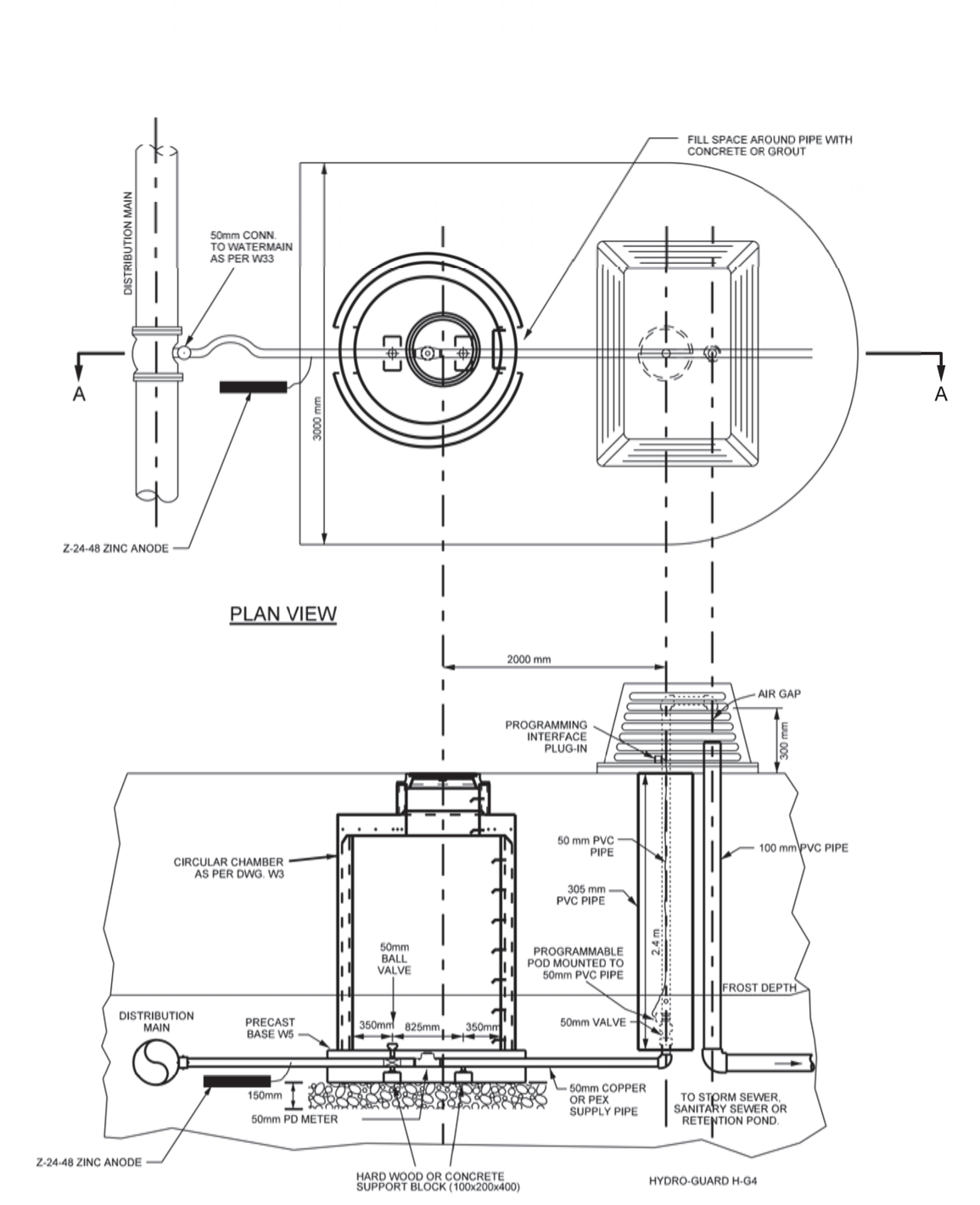


NOTES

FOR VALVES ON 400mm (NOMINAL) WATERMAINS.

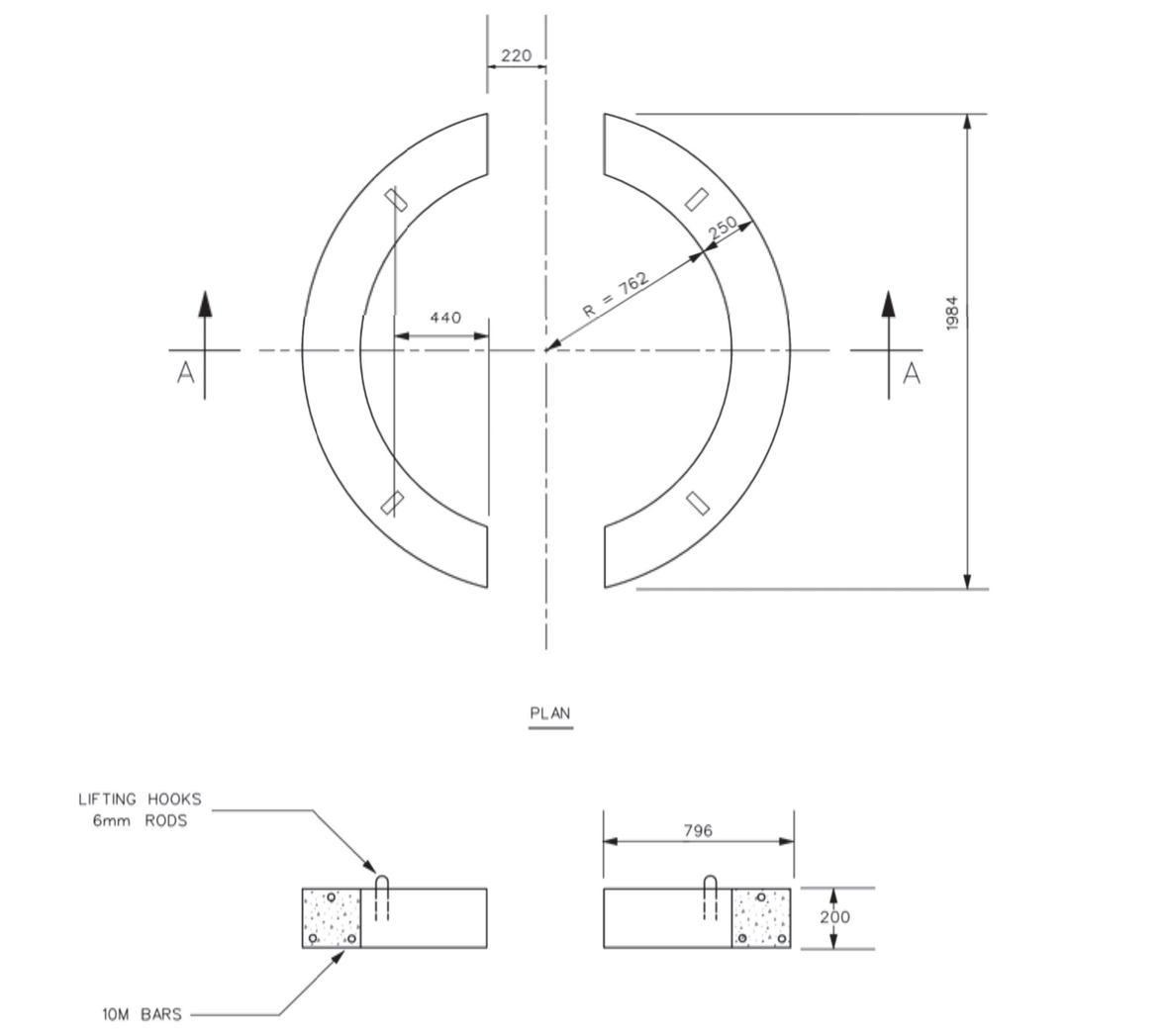
1. CLEARANCE AROUND PIPE AND CHAMBER WALL TO BE 50mm MINIMUM.
2. REFER TO MW-13.1 FOR ADDITIONAL REQUIREMENTS.
3. REFER TO MW-19.15 FOR APPROVED MANUFACTURERS.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
5. CATHODIC PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH W39, W40 AND W42.
6. TRACER WIRE REQUIRED FOR PVC, PEX AND HDPE WATERMAIN PIPE ONLY AS PER W36. TRACER WIRE TO BE CONNECTED TO VALVE BOLT AS PER W55 AND SECURED TO TOP OF CHAMBER.

Ottawa — CIRCULAR CHAMBER BUTTERFLY VALVES — DATE: MAY 2001 — REV. DATE: MARCH 2021 — DWG. No.: W2



NOTES:
1. TYPICAL INSTALLATION FOR A HYDROGUARD H-G4 SUBSURFACE DISCHARGE UNIT
2. REFER TO W20 FOR ADDITIONAL REINSTATEMENT REQUIREMENT IN DITCH AREAS.
3. CLAMP ANODE CABLE TO COPPER PIPE USING PIPE CLAMP COVERED WITH DIELECTRIC INSULATING PUTTY/SEALANT.
4. ALL MATERIALS SHALL BE IN ACCORDANCE WITH MW-19.15.
5. ANODE NOT REQUIRED FOR PEX PIPE.
6. CATHODIC PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH W39, W40 AND W42.
7. TRACER WIRE REQUIRED FOR PVC, PEX AND HDPE WATERMAIN PIPE ONLY AS PER W36. TRACER WIRE TO BE CONNECTED TO VALVE BOLT AS PER W55 AND SECURED TO TOP OF CHAMBER.

Ottawa — AUTOMATIC FLUSHING CHAMBER — DATE: MARCH 2007 — REV. DATE: MARCH 2021 — DWG. No.: W3.2

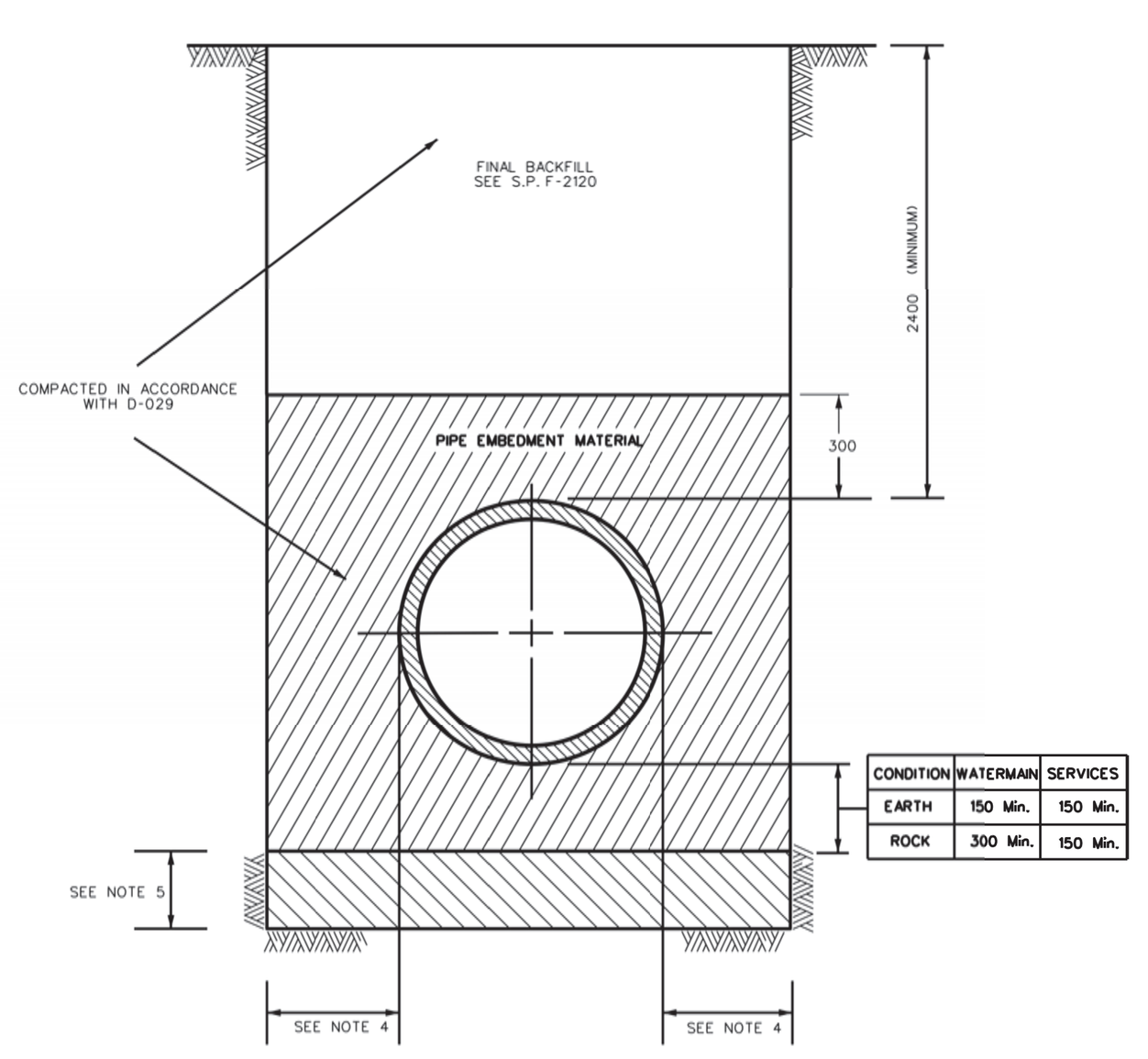


NOTES

FOR LINE VALVES ON 300mm (NOMINAL) MAINS. TAPPING VALVES ON 300mm (NOMINAL) MAINS.

1. FOR VALVE CHAMBER ASSEMBLE SEE DETAILS W2, W3 & W4.
2. FOR 300mm AND 400mm DIA. (NOMINAL) STACK BASES TWO HIGH.
3. REFER TO MW-13.1 FOR ADDITIONAL REQUIREMENTS.
4. REFER TO MW-19.15 FOR APPROVED MANUFACTURERS.
5. FOR 400mm DIA. FIELD CUT SECTION ENDS AS REQUIRED FOR PROPER FIT AND SUPPORT.
6. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa — CIRCULAR CHAMBER BASE SECTIONS — DATE: MAY 2001 — REV. DATE: NONE — DWG. No.: W5

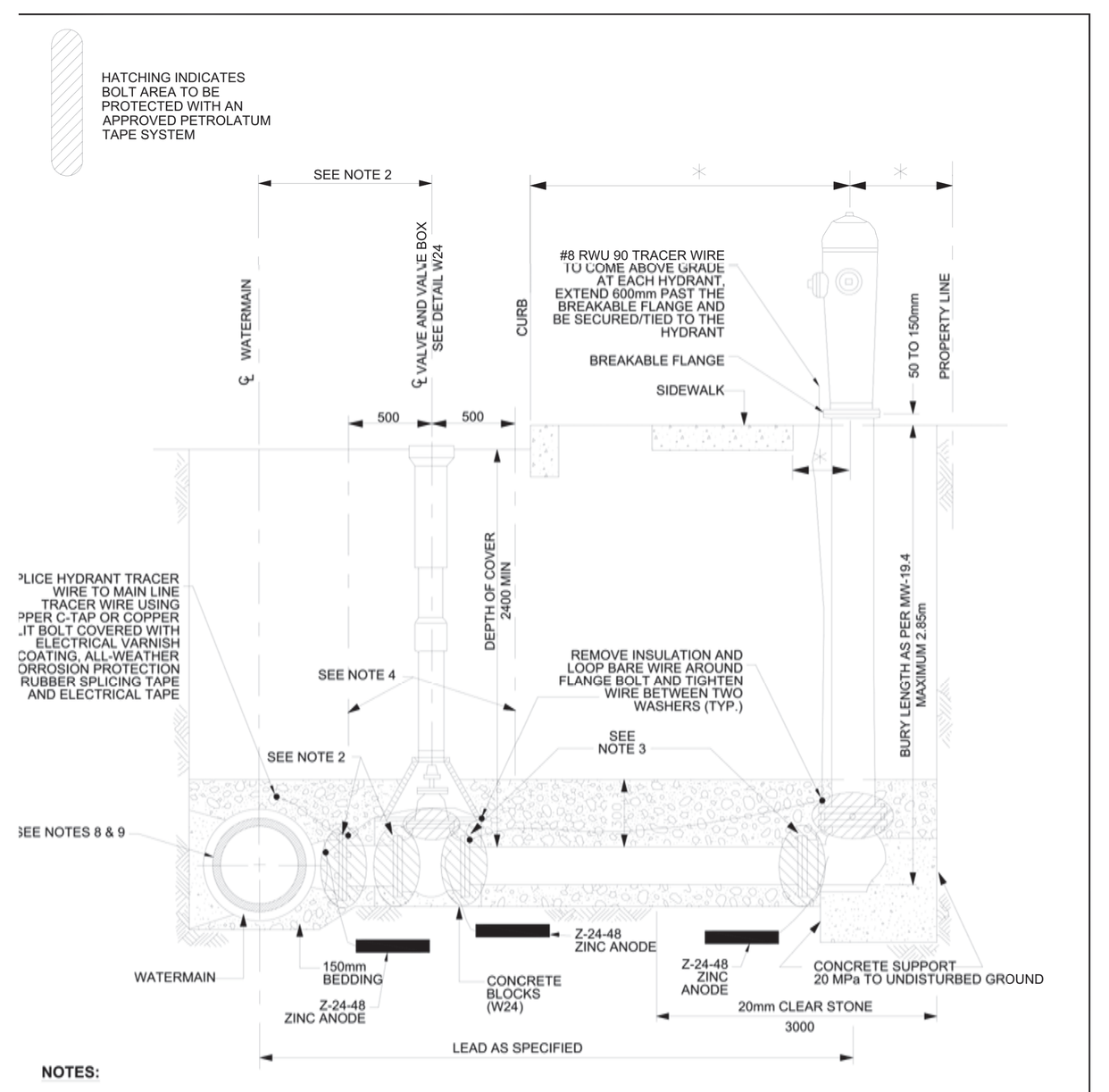


NOTES:
1. PIPE EMBEDMENT MATERIAL - GRANULAR 'A'.
2. FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-2120
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
4.

PIPE OUTSIDE DIA. (mm)	CLEARANCE (mm)
900 or LESS	450
OVER 900	500

5. WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOILS SHALL BE EXCAVATED TO CREATE A FOUNDATION THAT SHALL BE FILLED TO THE BEDDING WITH GRANULAR 'B'.

Ottawa — STANDARD TRENCH DETAIL — DATE: MAY 2001 — REV. DATE: MARCH 2016 — DWG. No.: W17

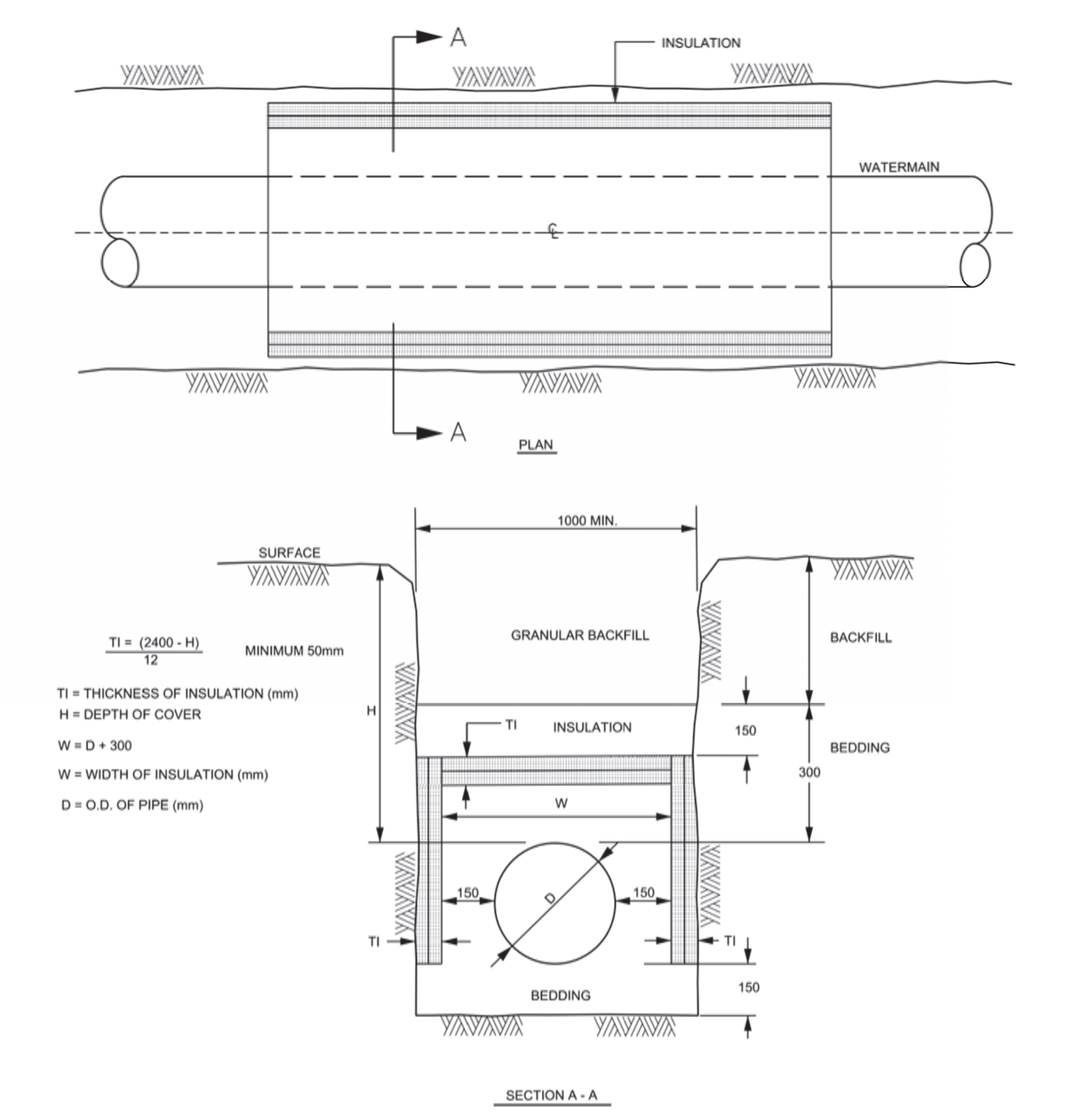


NOTES:

FOR ALL WATERMAINS

1. SEE DETAIL W20 FOR HYDRANTS IN DITCH AREAS
2. FOR WATERMAINS 400mm AND UNDER, LOCATE VALVE WITHIN 1.0m OF CENTRELINE. RETAINING/RESTRAINING DEVICES TO BE UTILIZED. FOR WATERMAINS 600mm AND OVER, BOLT VALVE WITH FLANGED END DIRECTLY TO FLANGED TEE
3. RETAINING/RESTRAINING DEVICES TO BE UTILIZED
4. HYDRANT BREAKABLE FLANGE ELEVATION TO BE ESTABLISHED PRIOR TO INSTALLATION. REFER TO MW-19.4 AND F-4414
5. SEE SPF-2120 FOR BACKFILL REQUIREMENTS IN THIS AREA
6. SEE F-4414 FOR HYDRANT LOCATION REQUIREMENTS
7. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
8. FOR ALL 300mm WATERMAINS USE A 300 x 150 TANGENTIAL TEE WITH THE 150mm OUTLET ON TOP
9. FOR ALL 400mm WATERMAINS USE A 400 x 150 TANGENTIAL TEE WITH THE 150mm OUTLET ON TOP
10. *DUCTILE IRON ONLY* THERMITE WELD TWO #8 RWU90 CABLES ACROSS EACH PIPE/FITTING JOINT OR CONNECTION TO ENSURE ELECTRICAL CONTINUITY ALONG ALL METALLIC COMPONENTS
11. ALL MATERIALS SHALL BE IN ACCORDANCE WITH MW-19.15
12. TRACER WIRE BOLT CONNECTIONS TO BE COMPLETED PER W55
13. TRACER WIRE SPLICES TO BE COMPLETED PER W47

Ottawa — TITLE: HYDRANT INSTALLATION - NEW CONSTRUCTION — DATE: MAY 2001 — REV: MAR 2023

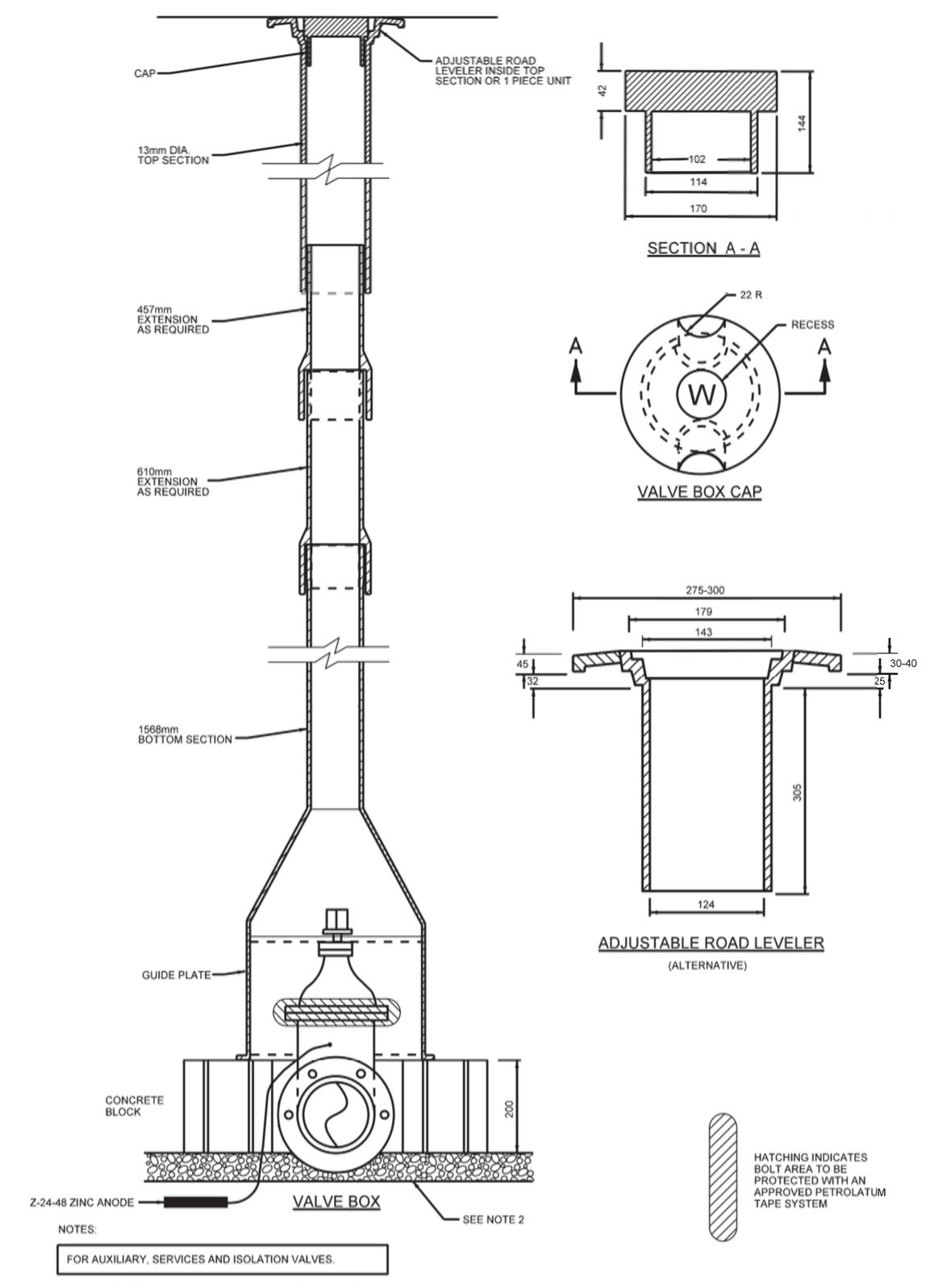


NOTES

FOR 150 - 400mm (NOMINAL DIAMETER) WATERMAINS, WHERE THE DEPTH OF COVER IS LESS THAN 2400mm

1. INCREMENTS OF THICKNESS SHALL BE ADJUSTABLE TO 25mm.
2. IN PROXIMITY OF MAINTENANCE HOLES, CULVERTS, CATCHBASINS, ETC., INSULATION SHALL BE PLACED PER DETAIL W23
3. DEPTH OF COVER LESS THAN 1200mm REQUIRES SPECIAL DESIGN
4. STAGGER JOINTS OF MULTIPLE SHEETS.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa — THERMAL INSULATION FOR WATERMAINS IN SHALLOW TRENCHES — DATE: MAY 2001 — REV. DATE: MARCH 2013 — DWG. No.: W22

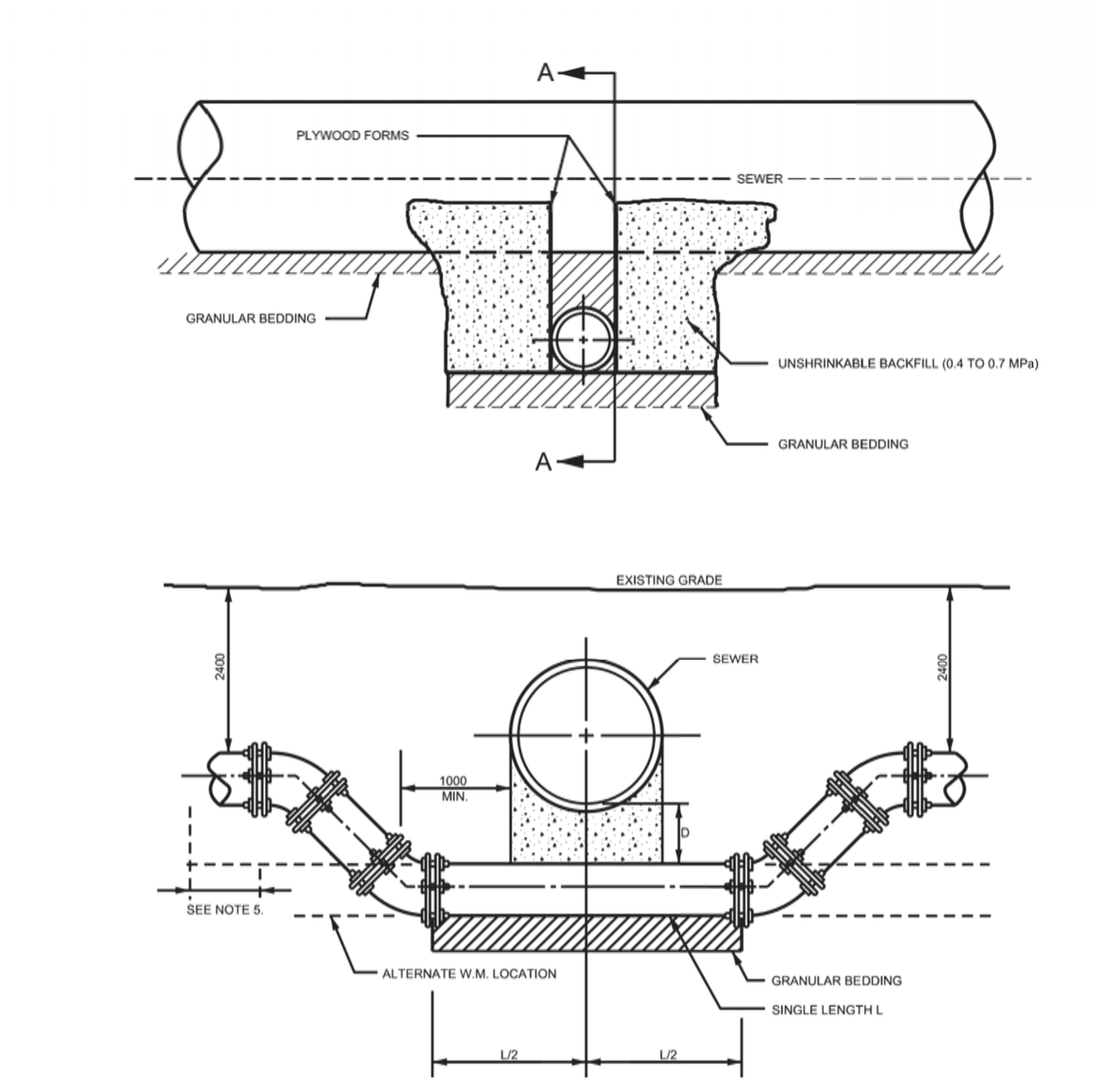


NOTES:

FOR AUXILIARY, SERVICES AND ISOLATION VALVES.

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. FOR 200 AND 250mm VALVES, ADD BEDDING BELOW THE CONCRETE BLOCKS AS REQUIRED TO RAISE BELL HIGH ENOUGH TO PREVENT CONTACT WITH THE VALVE BONNET.

Ottawa — VALVE BOX ASSEMBLY — DATE: MAY 2001 — REV. DATE: MARCH 2021 — DWG. No.: W24

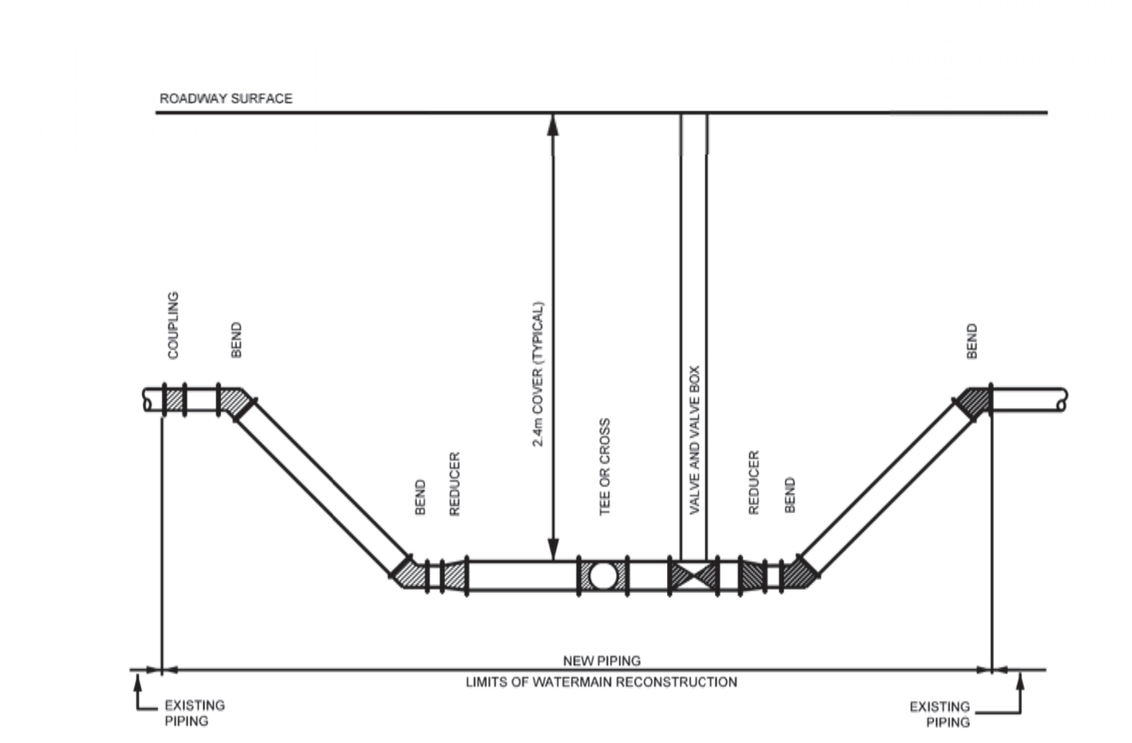


NOTES:

FOR WATERMAIN 100mm (NOMINAL) TO 400mm (NOMINAL)

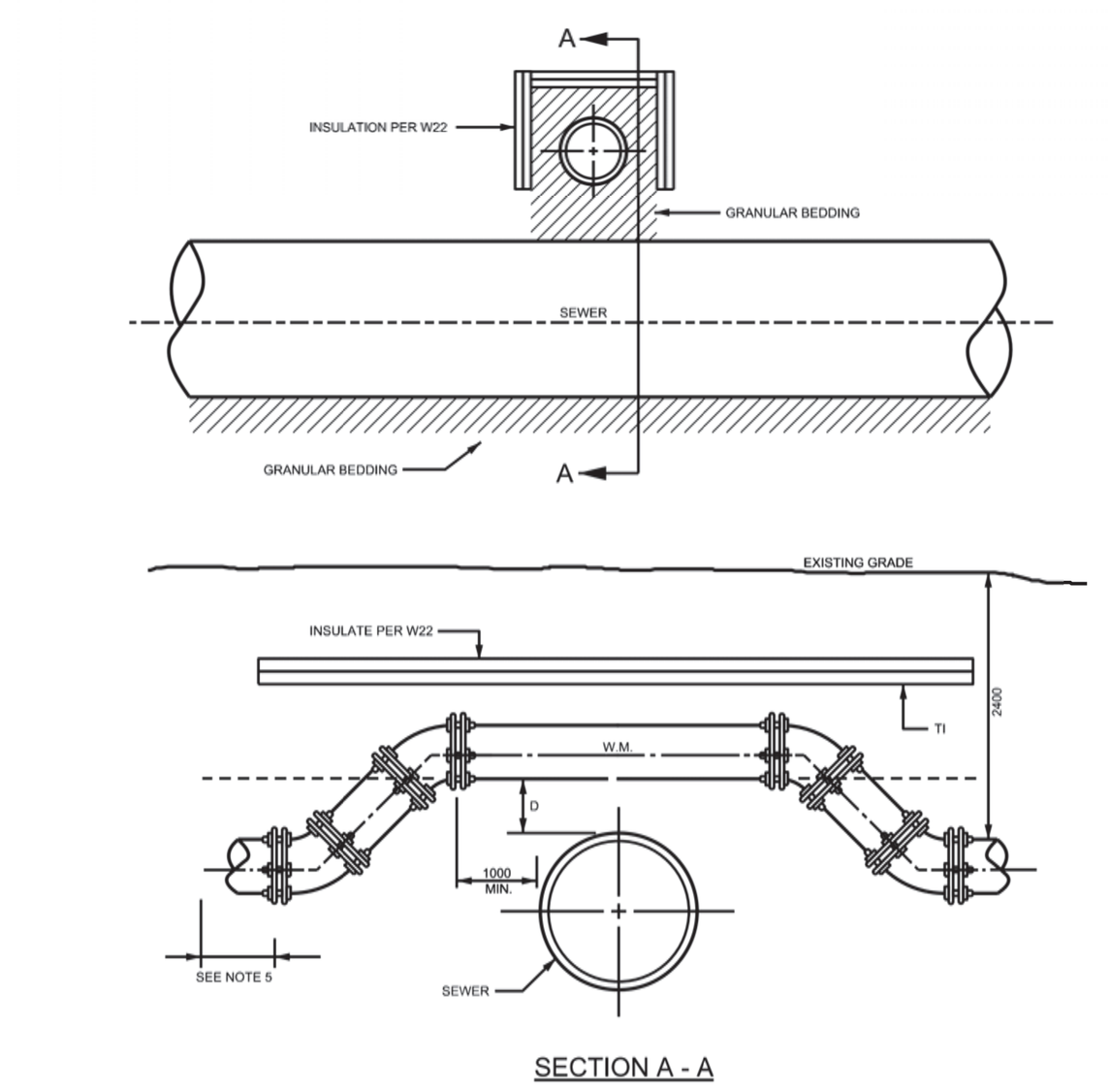
1. BARREL TO INVERT SEPARATION (D) SHALL BE 500mm MINIMUM.
2. THRUST BLOCKS FOR MAINS LARGER THAN 400mm (NOMINAL) SHALL BE PER SPECIAL DESIGN.
3. FOR 300mm (NOMINAL) AND 400mm (NOMINAL) MAINS, BENDS SHALL BE MAX. 22° 30'.
4. CONCRETE FOR THRUST BLOCKS SHALL BE 20 MPa.
5. REFER TO W25.6 FOR RESTRAINED LENGTH REQUIREMENTS.
6. REFER TO W25.3 AND W25.4 FOR THRUST BLOCK REQUIREMENTS.
7. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
8. DESIGNED TO MEET THE INTENT OF THE MOE WATERMAIN DESIGN CRITERIA JUNE 2012.
9. CATHODIC PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH W39, W40, AND W42.
10. TRACER WIRE REQUIRED FOR PVC, PEX AND HDPE WATERMAIN PIPE ONLY AS PER W36.

Ottawa — WATERMAIN CROSSING BELOW SEWER — DATE: MAY 2001 — REV. DATE: MARCH 2021 — DWG. No.: W25



NOTES:
1. FOR 300mm OR GREATER DIAMETER WATERMAIN, BENDS SHALL BE MAXIMUM 22∅.
2. INSULATION PER W22 AT EXISTING WATERMAIN.
3. REFER TO W25.6 FOR RESTRAINED LENGTH REQUIREMENTS.
4. REFER TO W25.3 AND W25.4 FOR THRUST BLOCK REQUIREMENTS.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
6. CATHODIC PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH W39, W40, AND W42.
7. TRACER WIRE REQUIRED FOR PVC, PEX AND HDPE WATERMAIN PIPE ONLY AS PER W36.

Ottawa — TYPICAL CONNECTION DETAIL FROM NEW TO EXISTING WATERMAIN — DATE: MAY 2001 — REV. DATE: MARCH 2021 — DWG. No.: W25.1

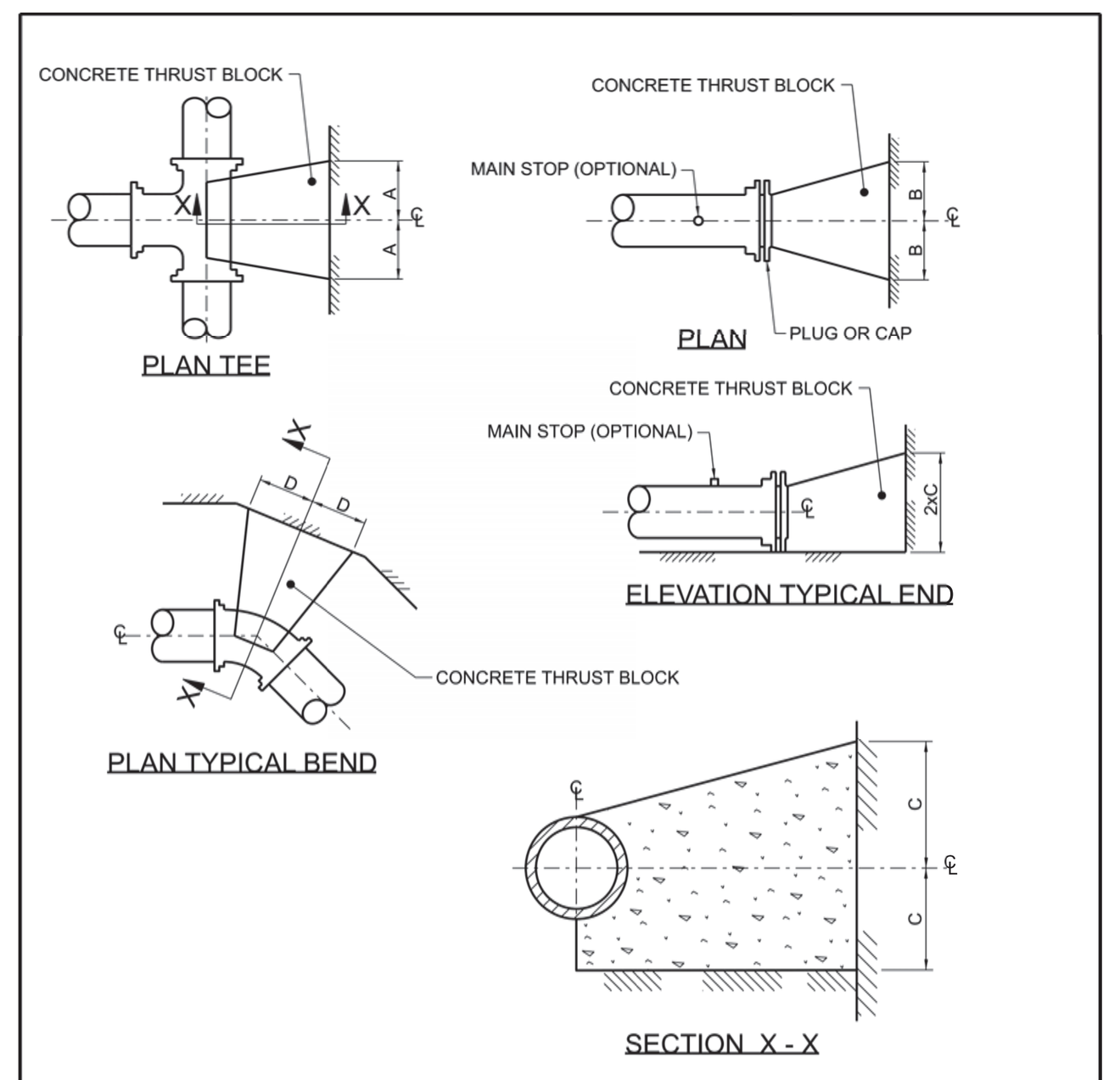


NOTES:

FOR WATERMAIN 100mm (NOMINAL) TO 400mm (NOMINAL)

1. BARREL TO BARREL SEPARATION (D) SHALL BE 250mm MINIMUM.
2. THRUST BLOCKS FOR MAINS LARGER THAN 400mm (NOMINAL) SHALL BE PER SPECIAL DESIGN.
3. FOR 300mm (NOMINAL) AND 400mm (NOMINAL) MAINS, BENDS SHALL BE MAX. 22° 30'.
4. CONCRETE FOR THRUST BLOCKS SHALL BE 20 MPa.
5. REFER TO W25.6 FOR RESTRAINED LENGTH REQUIREMENTS.
6. REFER TO W25.3 AND W25.4 FOR THRUST BLOCK REQUIREMENTS.
7. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
8. DESIGNED TO MEET THE INTENT OF THE MOE WATERMAIN DESIGN CRITERIA JUNE 2012.
9. CATHODIC PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH W39, W40, AND W42.
10. TRACER WIRE REQUIRED FOR PVC, PEX AND HDPE WATERMAIN PIPE ONLY AS PER W36.

Ottawa — WATERMAIN CROSSING OVER SEWER — DATE: MAY 2001 — REV. DATE: MARCH 2021 — DWG. No.: W25.2



NOTES:
1. CONCRETE SHALL BE PLACED TO WITHIN 50mm OF FACE OF THE BELL.
2. BOND BREAKER TO BE USED BETWEEN CONCRETE AND FITTINGS.
3. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
4. REFER TO W25.4 FOR ADDITIONAL REQUIREMENTS.
5. THRUST BLOCKS SHALL BE 20 MPa. CONCRETE AND AS SHOWN ON ABOVE DRAWINGS UNLESS OTHER DIRECTED BY THE CONTRACT ADMINISTRATOR. THE BLOCK SHALL BE CENTERED ON THE THRUST FORCE AND SHALL ALSO PARTIALLY CRADLE THE FITTING TO DISTRIBUTE THE FORCE. THE SIDES OF THE BLOCK SHALL BE 80mm FROM THE JOINT ON EITHER SIDE OF THE BEND OR TEE.
6. THE CONCRETE WHERE POSSIBLE SHALL BE PLACED AGAINST UNDISTURBED SOIL AT THE BOTTOM AND SIDE OF THE TRENCH. WHERE THRUST BLOCKS CAN NOT BE POURED TO UNDISTURBED SOIL, OR WHERE IT WOULD CONFLICT WITH EXISTING OR FUTURE INFRASTRUCTURE, THE THRUST BLOCK SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER.
7. EXCEPT FOR THE ADDITION OF WATER, CONCRETE FOR THRUST BLOCKS SHALL COME PREMIXED FROM CONCRETE SUPPLIER, AS 'READY MIX' FROM A CONCRETE TRUCK. ON-SITE MIXING OF CEMENT, SAND AND AGGREGATE ETC. BY THE CONTRACTOR, FOR THE PURPOSE OF MAKING CONCRETE THRUST BLOCKS/ ANCHORS WILL NOT BE ACCEPTED.

N.T.S.

Ottawa — CONCRETE THRUST BLOCKS FOR PVC AND DI PIPE 400mm AND UNDER — DATE: MAY 2001 — REV. DATE: MARCH 2022 — DWG. No.: W25.3

1. SOIL DESCRIPTION: VERY FINE SANDS, SANDY CLAYS, CLAYS.
SOILS WITH TYPICAL BEARING STRENGTH OF 100 TO 199 KPa

PIPE DIAMETER	DIMENSION NOTED ON W25.3 A	B	C	D
102	250	250	200	200
152	400	400	250	300
203	550	550	300	450
254	650	650	400	500
305	800	800	450	650
406	1050	1050	600	850

2. SOIL DESCRIPTION: SILTY SAND GRAVELS OR CLAYEY SAND GRAVEL MIXTURES, MODERATE AMOUNT OF FINES.
SOILS WITH TYPICAL BEARING STRENGTH OF 200 TO 299 KPa

PIPE DIAMETER	DIMENSION NOTED ON W25.3 A	B	C	D
102	200	200	150	150
152	250	250	200	200
203	350	350	250	270
254	450	450	300	350
305	500	500	350	400
406	750	750	400	600

3. SOIL DESCRIPTION: SANDS, GRAVELS AND GRAVEL-SAND MIXTURES, LITTLE OR NO FINES.
SOILS WITH TYPICAL BEARING STRENGTH OF 300 KPa AND OVER

PIPE DIAMETER	DIMENSION NOTED ON W25.3 A	B	C	D
102	150	150	150	150
152	200	200	200	200
203	300	300	200	230
254	400	400	250	270
305	450	450	300	300
406	650	650	350	450

NOTES:
1. THE ABOVE THRUST BLOCK DIMENSIONS MEET OR EXCEED THE WATERMAIN DESIGN CRITERIA FOR FUTURE ALTERATIONS AUTHORIZED UNDER A DRINKING WATER WORKS PERMIT.
2. THE ASSUMPTIONS MADE FOR THE ABOVE CALCULATIONS ARE AS FOLLOWS:
   a) MAXIMUM OPERATING PRESSURE OF 100 psi.
   b) MAXIMUM SURGE PRESSURE WITH A FLOW VELOCITY CHANGE OF 0.6 m/s OF 115 psi (115 psi FOR CLASS 52 DI AND FOR PVC MAX. SURGE IS 35 psi)
3. THE TABLES APPLY TO BOTH DUCTILE IRON AND PVC. WHERE ONE LENGTH EXCEEDED THE OTHER THE LONGER LENGTH WAS USED.
4. DIMENSIONS MAY BE ADJUSTED SO LONG AS THE BEARING SURFACE AREA OF THE THRUST BLOCK IS NOT REDUCED.
4. TO BE USED IN CONJUNCTION WITH W25.3.

Ottawa — THRUST BLOCK DIMENSION TABLES FOR PVC AND DI PIPE 400mm AND UNDER — DATE: MAY 2001 — REV. DATE: MARCH 2011 — DWG. No.: W25.4

TABLE OF RESTRAINED LENGTHS FOR DI AND PVC WATERMAIN PIPE IN STANDARD GRANULAR 'A' EMBEDMENT IN SOILS OF BEARING CAPACITY OF 100 KPa AND OVER

REDUCERS — LARGER DIAMETER SIDE (TO BE RESTRAINED)

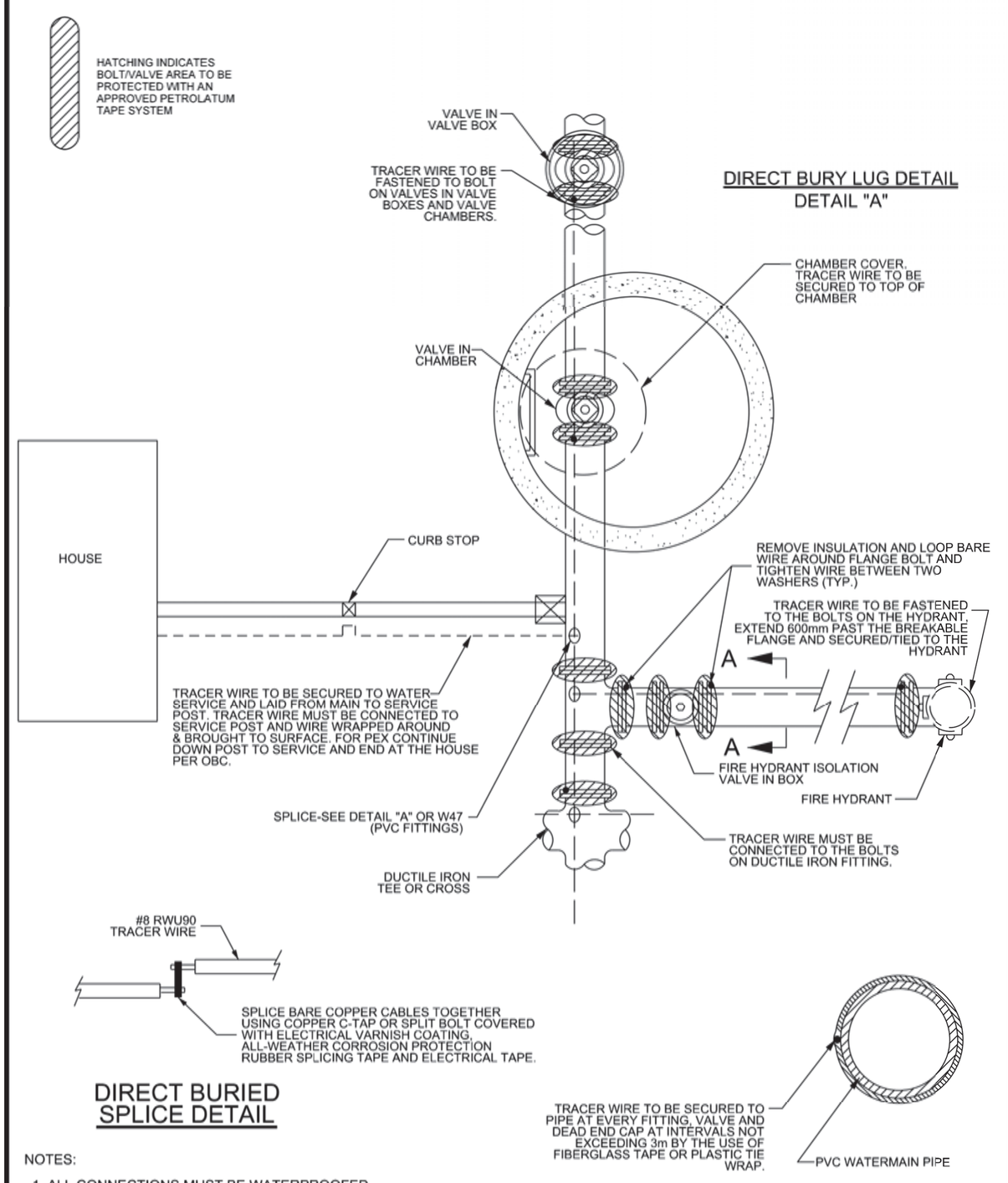
SMALLER DIAMETER (UNRESTRAINED)	100mm	150mm	200mm	250mm	300mm	400mm
100mm	N/A	3	6	8	10	14
150mm	N/A	N/A	4	6	9	13
200mm	N/A	N/A	N/A	3	6	11
250mm	N/A	N/A	N/A	N/A	4	9
300mm	N/A	N/A	N/A	N/A	N/A	7
400mm	N/A	N/A	N/A	N/A	N/A	N/A

PIPE DIAMETER

	100mm	150mm	200mm	250mm	300mm	400mm
DEAD ENDS, CAPS, PLUGS, VALVES						
BEFORE CAPS AND EITHER SIDE OF VALVES - L	5	6	9	10	12	16
VERTICAL BENDS						
LENGTH HIGH SIDE - LHS	3	4	5	6	7	9
LENGTH LOW SIDE - LLS	1.5	2	2.5	3	3.5	4.5
TEES						
LENGTH ALONG THE BRANCH - L	1	1	1	1	1	1
LENGTH ALONG THE RUN - Lr	3	3	3	3	3	3
HORIZONTAL BENDS						
11.25, 22.5, AND 45 DEGREE BENDS	1	1.5	1.5	2	2	2.5

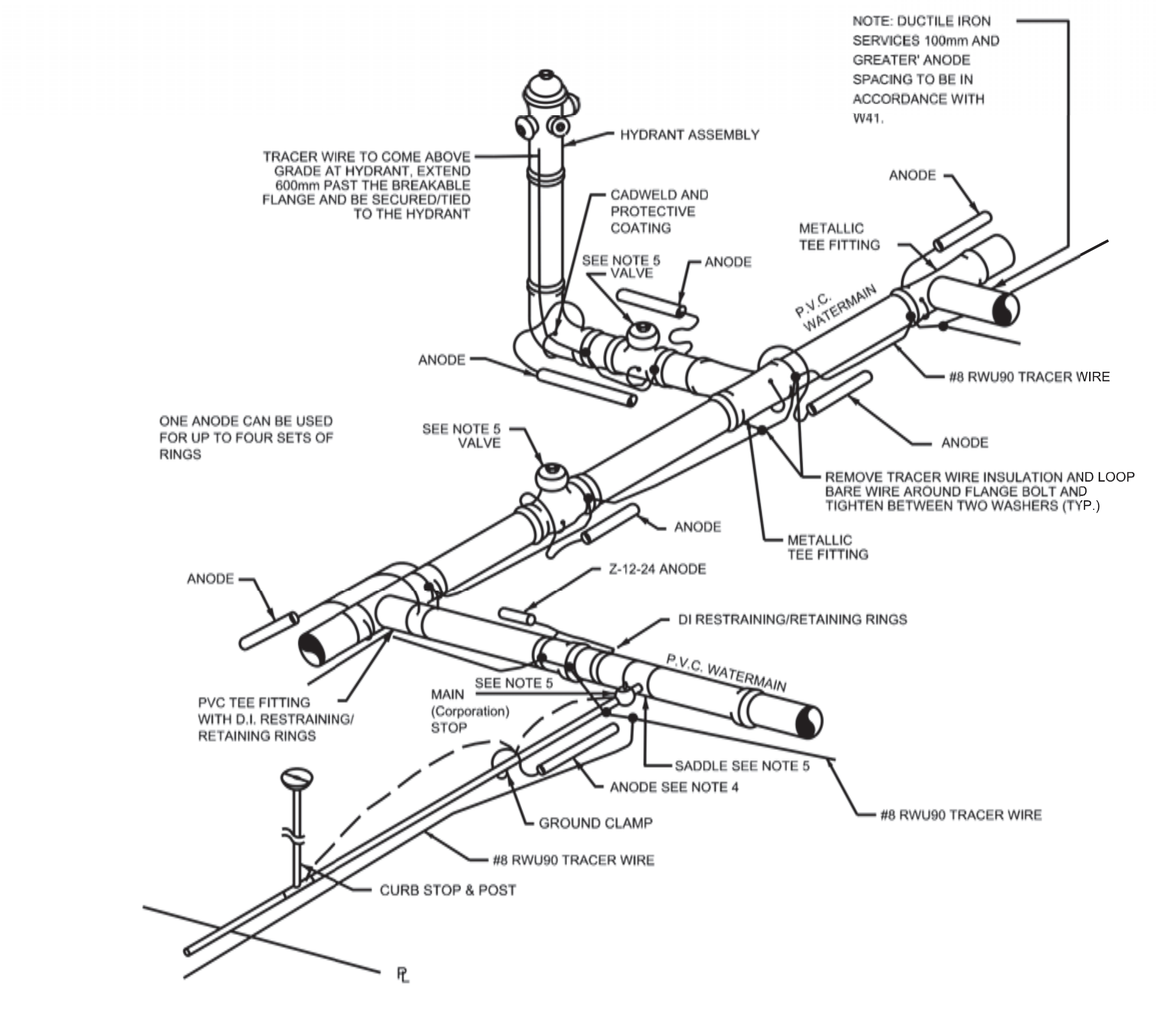
NOTES:
1. THE ABOVE RESTRAINED LENGTHS MEET OR EXCEED THE WATERMAIN DESIGN CRITERIA FOR FUTURE ALTERATIONS AUTHORIZED UNDER A DRINKING WATER WORKS PERMIT.
2. THE ASSUMPTIONS MADE FOR THE ABOVE CALCULATIONS ARE AS FOLLOWS:
   a) MAXIMUM OPERATING PRESSURE OF 100 psi.
   b) MAXIMUM SURGE PRESSURE WITH A FLOW VELOCITY CHANGE OF 0.6 m/s OF 115 psi (115 psi FOR CLASS 52 DI AND FOR PVC MAX. SURGE IS 35 psi)
3. FOR SOFTWARE CALCULATIONS A TEST PRESSURE OF 150 psi AND A SAFETY FACTOR OF 1.5 WAS USED WHICH RESULTS IN 225 psi MAXIMUM PRESSURE.
4. TYPE 5 TRENCH BEDDING.
5. DEPTH TO BURY 2.4 METRES EXCEPT FOR VERTICAL BENDS WHERE THE HIGH SIDE IS AT 1.8 METRES.
6. EMBEDMENT MATERIAL GRANULAR 'A' WITH CHARACTERISTICS OF ASTM D2487 GP.
7. GP SOILS ARE DESCRIBED AS POORLY GRADED GRAVEL AND SAND-GRAVEL MIXES WITH LITTLE OR NO FINES.
8. (Lr) MUST BE OF SOLID PIPE WITHOUT JOINTS, FITTINGS, ETC.
9. THE TABLES APPLY TO BOTH DUCTILE IRON AND PVC. WHERE ONE LENGTH EXCEEDED THE OTHER THE LONGER LENGTH WAS USED.
10. RESTRAINED LENGTHS ARE IN METRES.

Ottawa — TABLES OF RESTRAINED LENGTHS FOR PVC AND DI PIPE 400mm AND UNDER — DATE: MAY 2001 — REV. DATE: MARCH 2011 — DWG. No.: W25.6



NOTES:
1. ALL CONNECTIONS MUST BE WATERPROOFED.
2. SPLICING OF MAIN TRACER WIRE IS NOT ALLOWED UNLESS SPECIFIED OR APPROVED.
3. TRACER WIRE CONTINUITY OF CURRENT MUST BE TESTED AND VERIFIED.
4. FOR PVC TO DUCTILE IRON CONNECTIONS, THE TRACER MUST BE ATTACHED TO THE DUCTILE IRON PIPE BY CADWELD.
5. ALL MATERIALS SHALL BE IN ACCORDANCE WITH MW-19.15.
6. TRACER WIRE BOLT CONNECTIONS TO BE COMPLETED PER W55.
7. TRACER WIRE SPLICES TO BE COMPLETED PER W47.
8. CATHODIC PROTECTION ANODES TO BE INSTALLED PER W40 AND W42.

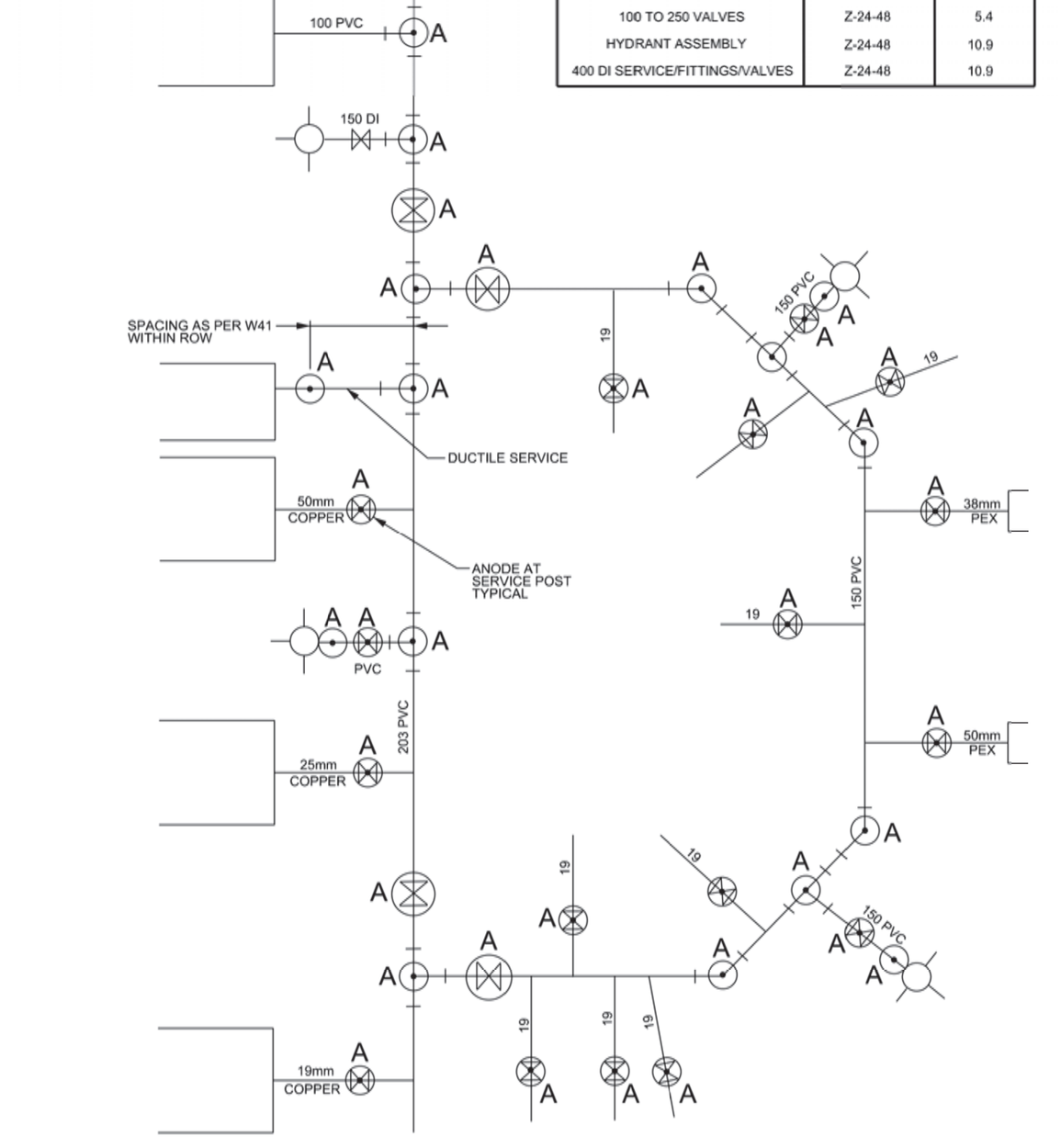
Ottawa — TRACER WIRE INSTALLATION — DATE: MARCH 2001 — REV. DATE: MARCH 2021 — DWG. No.: W36



NOTES:
1. ANODE CONNECTING WIRE TO BE LOOPED AROUND PIPES / FITTINGS AND KNOTTED.
2. PROTECTIVE COATING TO BE APPLIED TO ALL CADWELDS.
3. ANODE TYPE & SPACING AS PER W42.
4. CONNECT ANODE TO COPPER SERVICES USING A GROUND CLAMP AND FOR PEX SERVICES CONNECT ANODE TO TRACER WIRE TERMINALS ON BOTH MAIN AND CURB STOPS.
5. PROTECT AUXILIARY VALVES, ISOLATION VALVES, SADDLES AND MAIN STOPS/FITTINGS/VALVES/HYDRANT BOLTS AND FLANGE WITH A PETROLATUM WAX TAPE COATING SYSTEM. FOR PEX SERVICES ALSO WAX TAPE CURB STOP UP TO THE BASE OF THE TEE HEAD.
6. ALL DIMENSIONS ARE IN MILLIMETERS.
7. TRACER WIRE BOLT CONNECTIONS TO BE COMPLETED PER W55.
8. TRACER WIRE SPLICES TO BE COMPLETED PER W47.

Ottawa — CATHODIC PROTECTION FOR PVC WATERMAIN SYSTEMS — DATE: MAY 2001 — REV. DATE: MARCH 2021 — DWG. No.: W40

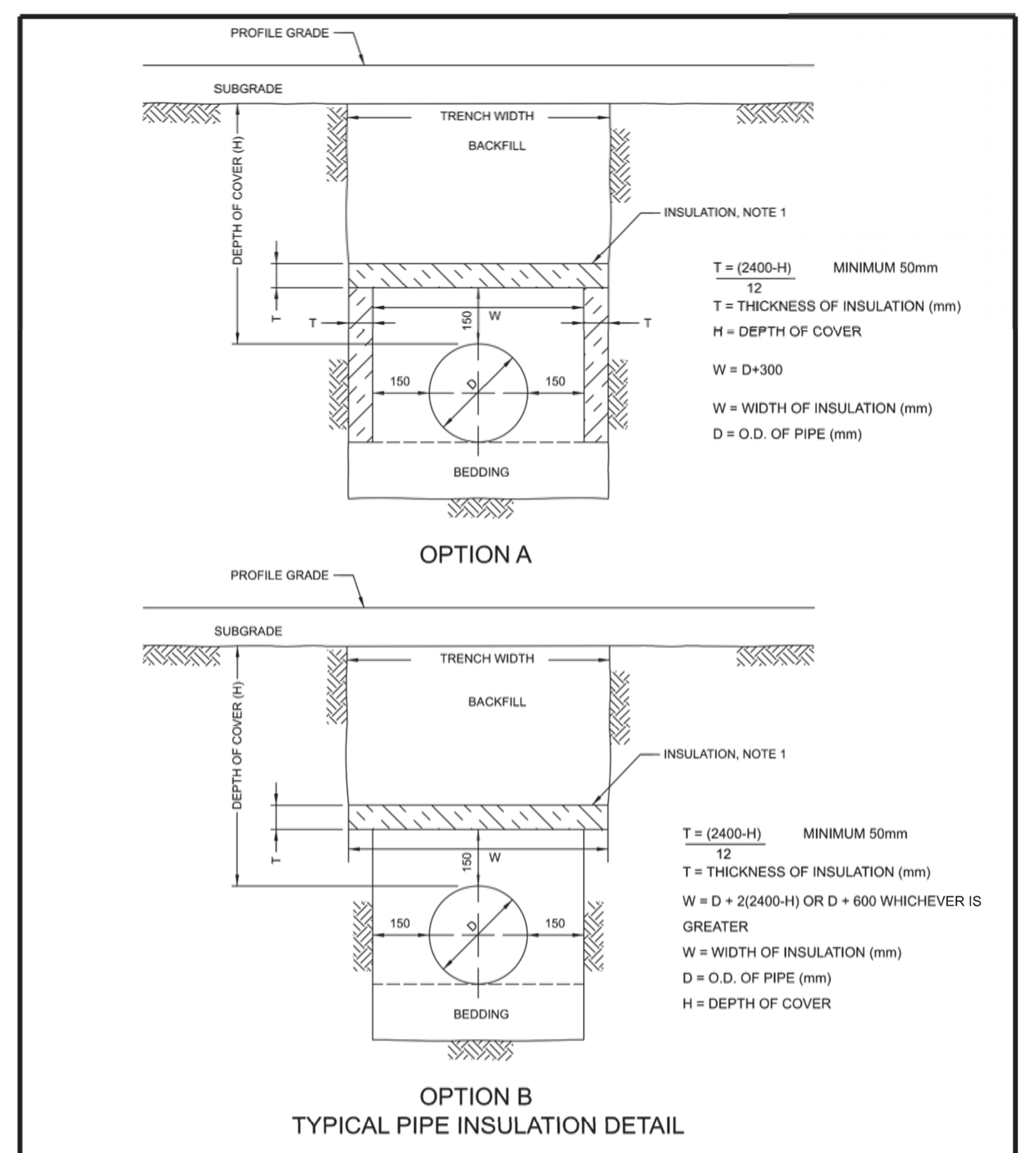
SIZE (mm)	ANODE TYPE	WEIGHT (Kg)
19 TO 50 COPPER SERVICE	Z-12-24	5.4
38 TO 50 PEX SERVICE	Z-12-24	5.4
100 TO 300 DI SERVICE	Z-24-48	10.9
100 TO 300 DI FITTINGS	Z-24-48	5.4
100 TO 250 VALVES	Z-24-48	5.4
HYDRANT ASSEMBLY	Z-24-48	10.9
400 DI SERVICE/FITTINGS/VALVES	Z-24-48	10.9



A - DENOTES ANODE LOCATION

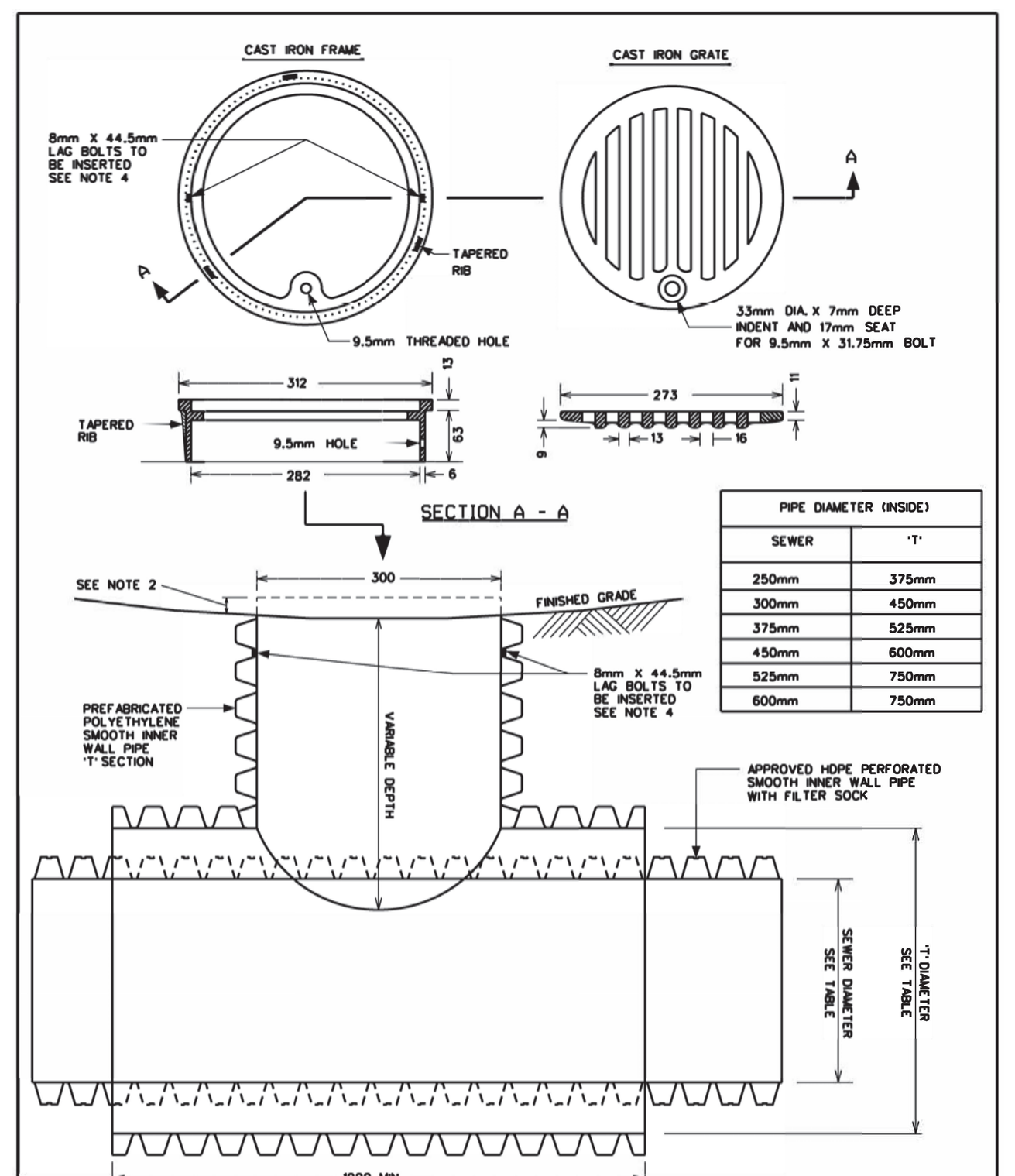
NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. ANODE FOR JOINT RESTRAINTS FOR PVC FITTINGS 300mm DIAMETER AND SMALLER.
3. INSTALL TRACER WIRE AS PER W40.

Ottawa — TYPICAL ANODE INSTALLATION PVC WATERMAIN — DATE: MAY 2001 — REV. DATE: MARCH 2021 — DWG. No.: W42



NOTES:
1. THE INSULATION MATERIAL SHALL BE EXTRUDED POLYSTYRENE ACCORDING TO MW-19.15 WITH A MINIMUM COMPRESSIVE STRENGTH OF 275 KPA.
2. MINIMUM INSULATION THICKNESS SHALL BE 50MM.
3. JOINTS SHALL BE STAGGERED FOR MULTIPLE INSULATION SHEETS.
4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

Ottawa — INSULATION FOR SHALLOW SEWERS — DATE: MARCH 2023 — REV. DATE: -- — DWG. No.: S35



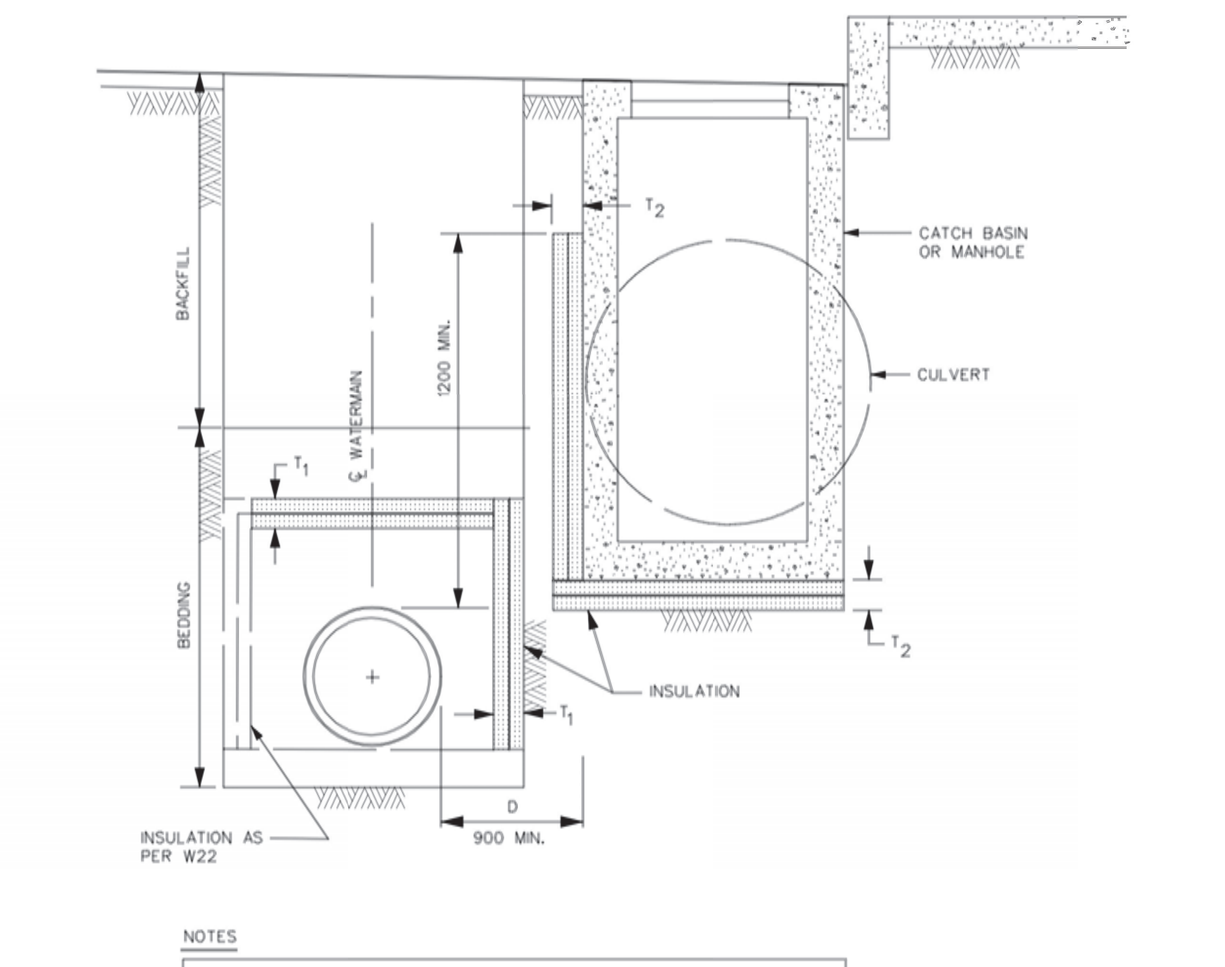
PIPE DIAMETER (INSIDE) SEWER	'T'
250mm	375mm
300mm	450mm
375mm	525mm
450mm	600mm
525mm	750mm
600mm	750mm

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
2. FOR DITCHED PIPE APPLICATIONS, TOP OF CB SHALL BE MIN. 5cm ABOVE BOTTOM OF THE DITCH/SWALE AND BE LOCATED MIN. 2m FROM EDGE OF PAVEMENT.
3. WHEN NON PERFORATED PIPE IS USED, MATCH THE 'T's HORIZONTAL OPENING DIAMETERS TO THE PIPE DIAMETER AND CONNECT WITH MANUFACTURER RECOMMENDED CONNECTION SLEEVE.
4. CAST IRON FRAME TO BE SECURED TO PIPE WITH 2 LAG BOLTS AS SHOWN.

Ottawa — CATCH BASIN - 'T' FOR REAR YARD, DITCHED PIPE AND LANDSCAPING APPLICATIONS — DATE: MARCH 2007 — REV. DATE: MARCH 2021 — DWG. No.: S30

INSULATION REFERENCE TABLE

D DISTANCE FROM C.B. OR M.H. WALL	T REQUIRED INSULATION THICKNESS T=T1+T2
2400 - 1800 mm.	50 mm
1800 - 1500 mm.	75 mm
1500 - 1200 mm.	100 mm
1200 - 900 mm.	125 mm

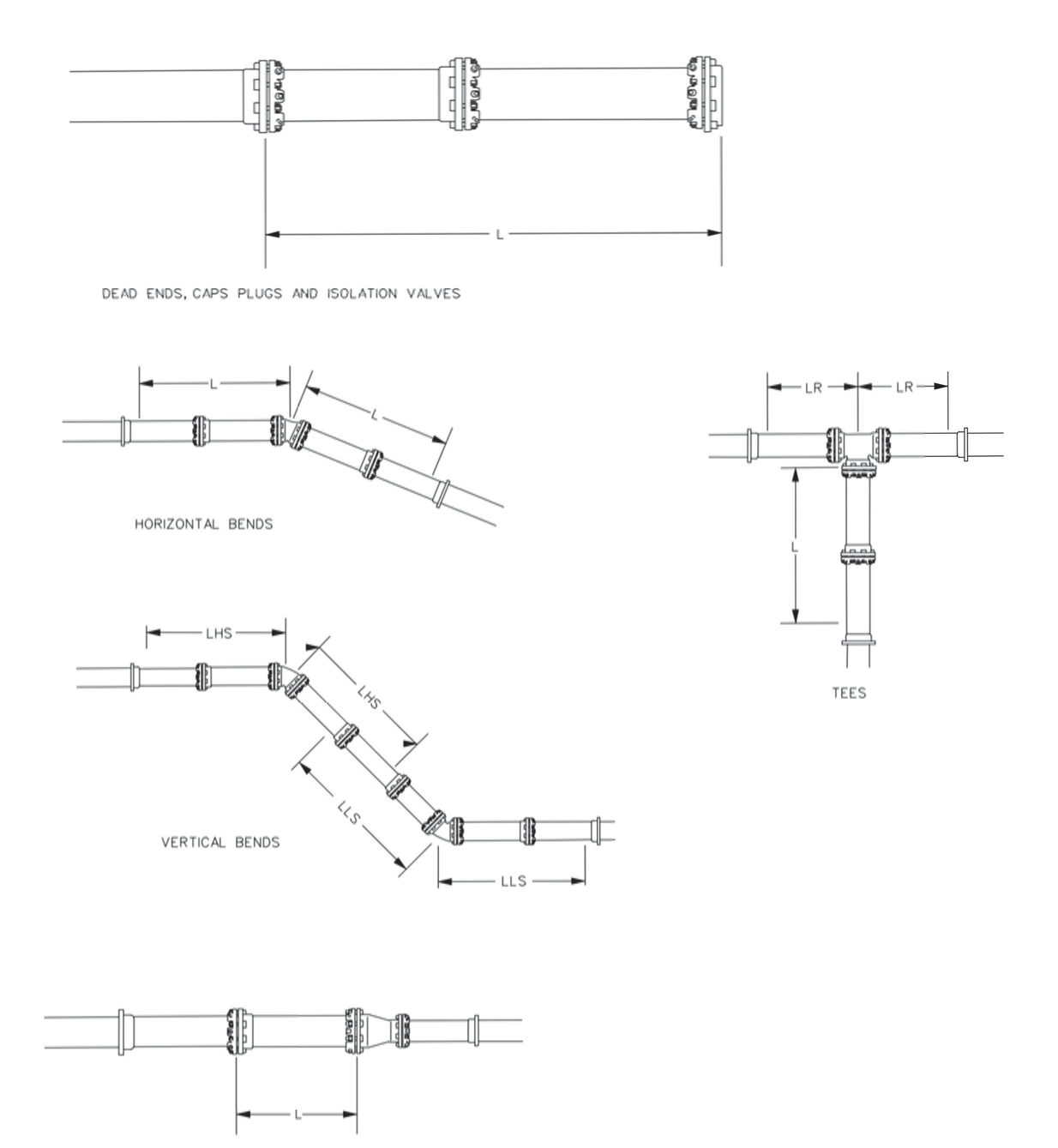


NOTES

FOR WATERMAINS & SERVICES IN PROXIMITY TO CATCHBASINS MAINTENANCE HOLES, CULVERTS ETC.

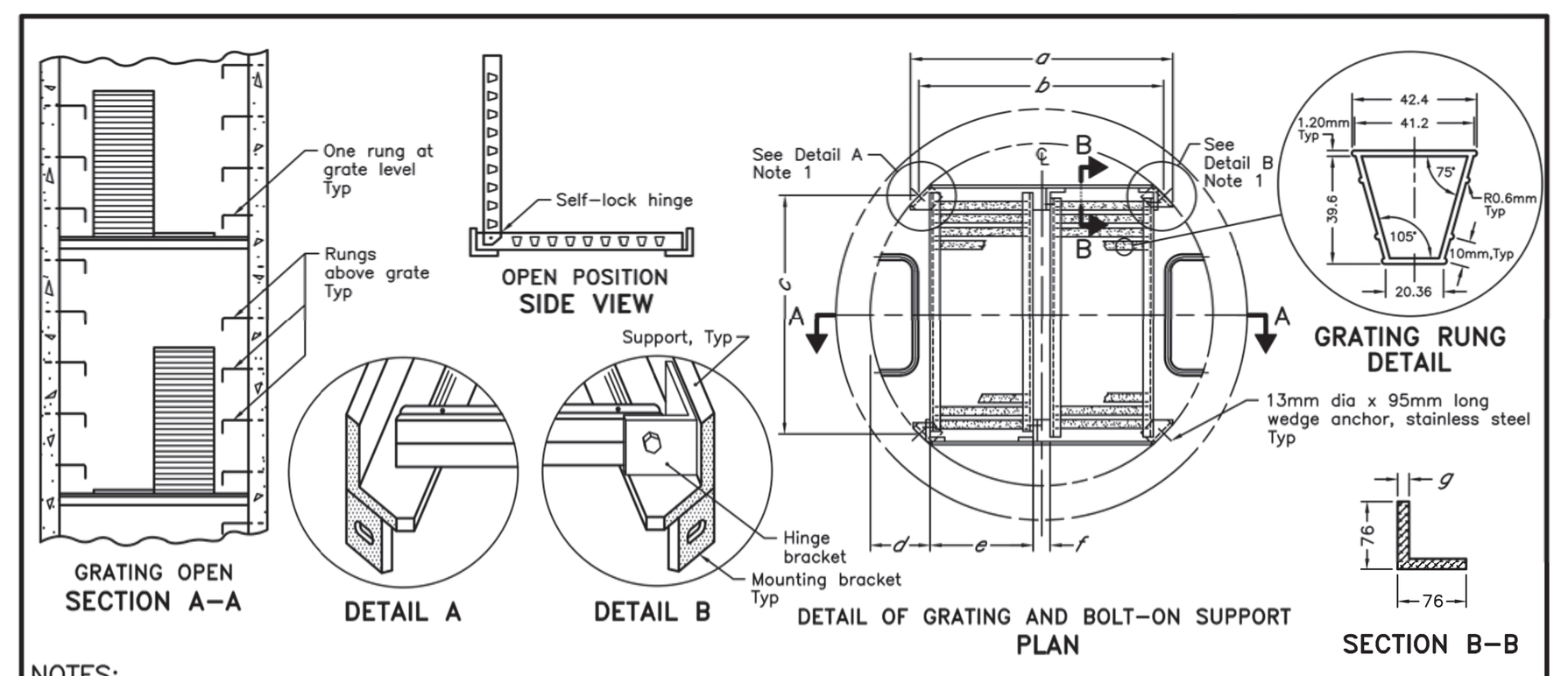
1. INSULATION SHALL EXTEND 1000 mm EACH WAY FROM THE ENDS OF THE STRUCTURE, PARALLELED TO THE WATERMAIN.
2. STAGGER JOINTS OF MULTIPLE SHEETS.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
4. INSULATION CAN BE AT EITHER LOCATION OR BOTH.

Ottawa — THERMAL INSULATION OF WATERMAINS AT OPEN STRUCTURES — DATE: MAY 2001 — REV. DATE: FEB 2004 — DWG. No.: W23



NOTES:
1. ANY JOINT THAT FALLS WITHIN THE RECOMMENDED LENGTH (L) SHALL BE RESTRAINED. SEE DRAWING W25.6
2. TO REDUCE THE NUMBER OF RESTRAINERS REQUIRED THE USE OF FULL PIPE LENGTHS IS RECOMMENDED IN THESE AREAS.

Ottawa — RESTRAINING AND RETAINING RINGS FOR PVC AND DI PIPE 400mm AND UNDER — DATE: MAY 2001 — REV. DATE: NONE — DWG. No.: W25.5



NOTES:
1 All hinge brackets and mounting brackets shall be welded all around to support angle.
A All aluminum in contact with concrete shall be thoroughly coated with asphalt paint.
B Maintenance hole depth between 5.0m and 10.0m, grate shall be placed at midpoint. Maintenance hole depth between 10.0m and 15.0m, grates shall be placed at third-points.
C All fasteners shall be 304 stainless steel.
D All welding shall be according to CSA W47.2 and W59.2.
E All aluminum components shall be 6000 series structural aluminum.
F All dimensions are in millimetres unless otherwise shown.

MH Diameter	No of Grates	a	b	c	d	e	f	g
1200	2	900	850	850	225	352	65	10
1500	2	1128	1078	1078	311	419	65	12
1800	3	1344	1293	1293	308	360	65	12
2400	4	1774	1724	1724	401	360	65	12

ONTARIO PROVINCIAL STANDARD DRAWING — Nov 2018 Rev 4

ALUMINUM SAFETY PLATFORM FOR CIRCULAR MAINTENANCE HOLES

OPSD 404.020

HDR

HDR Architecture Associates Inc.
300 Richmond Road, Suite 200
Ottawa, Ontario K1Z 6X6

PARSONS

LICENSED PROFESSIONAL ENGINEER — S.D.MITCHELSON 100128064 — 01/17/2024 — PROVINCE OF ONTARIO

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

The Ottawa Hospital | L'Hôpital d'Ottawa

Architect	HDR
Landscape Architect	HDR
Civil Engineer	Parsons
Structural Engineer	EXP
Mechanical Engineer	Smith + Andersen
Electrical Engineer	Smith + Andersen
Plumbing Engineer	Smith + Andersen
Interior Designer	HDR
Equipment Planner	Colliers
Wayfinding	
Sheet Reviewer	Author

MARK	DATE	DESCRIPTION
01	2022-09-23	ISSUED FOR PRE-CONSULTATION
02	2022-10-28	DRAFT FOR 90% SD
03	2022-11-30	ISSUED FOR SPC & FLUDA - 1ST SUBMISSION
04	2022-12-02	ISSUED FOR 3A1-2
05	2023-02-24	ISSUED FOR RFP VERSION 1.0
06	2023-04-12	RE-ISSUED FOR SPC & FLUDA
07	2023-07-28	ISSUED FOR PSOS
08	2023-08-04	RE-ISSUED FOR PSOS
09	2023-09-29	ISSUED FOR REVIEW AND COSTING
10	2023-10-27	ISSUED FOR MOH 3A.3
11	2024-01-17	ISSUED FOR DELEGATED AUTHORITY REPORT

APPROVED
By Lily Xu at 11:58 am, May 22, 2024

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT, AND BUILDING SERVICES DEPARTMENT, CITY OF OTTAWA

Project Number: 10333982
Original Issue: 02/21/23

PRELIMINARY
NOT FOR CONSTRUCTION

Sheet Name: STAGE 3: HOSPITAL DETAILS 3

Sheet Number: C118

Project Status: STAGE 3

D07-12-22-0168

CROSSING DATA

CROSSING No.	SEWER ELEV. AT CROSSING	SEWER ELEV. AT CROSSING	CLEARANCE
CR-100	STM, INV. 76.69	WM, TOP. 75.49	1.20 m
CR-101	STM, INV. 76.11	WM, TOP. 74.92	1.19 m
CR-102	STM, INV. 76.04	SAN, TOP. 74.89	1.15 m
CR-103	STM, INV. 75.59	WM, TOP. 74.39	1.20 m
CR-104	STM, INV. 75.52	WM, TOP. 74.61	0.90 m
CR-105	STM, INV. 74.70	WM, TOP. 73.19	1.51 m
CR-106	STM, INV. 74.63	SAN, TOP. 73.99	0.64 m
CR-107	STM, INV. 73.99	WM, TOP. 72.62	1.37 m
CR-108	STM, INV. 73.95	SAN, TOP. 73.69	0.27m
CR-109	WM, INV. 72.40	STM, TOP. 72.15	0.25 m
CR-110	SAN, INV. 73.04	STM, TOP. 72.10	0.93 m
CR-111	STM, INV. 73.69	WM, TOP. 72.27	1.42 m
CR-112	STM, INV. 73.63	SAN, TOP. 73.24	0.40 m
CR-113	STM, INV. 73.63	WM, TOP. 72.36	1.27 m
CR-114	STM, INV. 73.57	SAN, TOP. 73.19	0.38 m
CR-115	STM, INV. 73.49	WM, TOP. 72.53	0.96 m
CR-116	STM, INV. 73.43	SAN, TOP. 73.01	0.42 m
CR-117	SAN, INV. 73.01	WM, TOP. 72.57	0.44 m
CR-118	STM, INV. 73.22	WM, TOP. 72.58	0.64 m
CR-119	STM, INV. 73.57	WM, TOP. 72.63	0.94 m
CR-120	STM, INV. 73.52	SAN, TOP. 72.89	0.63 m
CR-121	WM, INV. 73.09	SAN, TOP. 72.84	0.25 m
CR-122	WM, INV. 73.09	STM, TOP. 72.42	0.66 m
CR-123	STM, INV. 73.72	WM, TOP. 72.77	0.95 m
CR-124	STM, INV. 73.50	WM, TOP. 72.83	0.67 m
CR-125	WM, INV. 73.08	SAN, TOP. 72.83	0.25 m
CR-126	WM, INV. 73.08	STM, TOP. 72.46	0.62 m
CR-127	STM, INV. 73.59	WM, TOP. 72.94	0.65 m
CR-128	STM, INV. 73.54	SAN, TOP. 72.81	0.72 m
CR-129	STM, INV. 74.37	WM, TOP. 73.81	0.56 m
CR-130	STM, INV. 74.32	SAN, TOP. 72.72	1.59 m
CR-131	WM, INV. 73.92	SAN, TOP. 72.65	1.27 m
CR-132	WM, INV. 73.99	STM, TOP. 73.66	0.33 m
CR-133	STM, INV. 73.18	SAN, TOP. 72.62	0.57 m
CR-134	SAN, INV. 72.92	STM, TOP. 72.32	0.59 m
CR-135	STM, INV. 76.12	WM, TOP. 75.17	0.95 m
CR-136	STM, INV. 76.06	SAN, TOP. 71.49	4.57 m
CR-137	STM, INV. 76.36	WM, TOP. 75.43	0.93 m
CR-138	STM, INV. 76.30	SAN, TOP. 71.42	4.88 m
CR-139	STM, INV. 77.18	WM, TOP. 76.01	1.17 m
CR-140	STM, INV. 77.12	SAN, TOP. 71.18	5.94 m
CR-141	STM, INV. 77.75	WM, TOP. 76.57	1.18 m
CR-142	STM, INV. 77.70	SAN, TOP. 71.04	6.66 m
CR-143	STM, INV. 78.32	WM, TOP. 77.13	1.19 m
CR-144	STM, INV. 78.27	SAN, TOP. 70.28	7.99 m
CR-145	SAN, INV. 73.11	STM, TOP. 72.53	0.58 m
CR-146	STM, INV. 70.45	SAN, TOP. 69.80	0.65 m
CR-147	STM, INV. 78.48	SAN, TOP. 69.71	8.78 m
CR-148	STM, INV. 77.63	WM, TOP. 76.73	0.90 m
CR-149	WM, INV. 77.58	SAN, TOP. 69.66	7.92 m
CR-150	STM, INV. 76.88	WM, TOP. 75.98	0.90 m
CR-151	STM, INV. 76.83	SAN, TOP. 69.61	7.22 m
CR-152	STM, INV. 76.13	WM, TOP. 75.23	0.90 m
CR-153	STM, INV. 76.08	SAN, TOP. 69.56	6.51 m
CR-154	STM, INV. 75.38	WM, TOP. 74.48	0.90 m
CR-155	STM, INV. 75.32	SAN, TOP. 69.51	5.81 m
CR-156	STM, INV. 74.64	WM, TOP. 73.74	0.90 m
CR-157	STM, INV. 74.58	SAN, TOP. 69.46	5.12 m
CR-158	STM, INV. 74.00	WM, TOP. 73.15	0.85 m
CR-159	STM, INV. 73.94	SAN, TOP. 69.37	4.57 m
CR-160	STM, INV. 72.71	STM, TOP. 71.92	0.79 m
CR-161	WM, INV. 72.54	STM, TOP. 70.48	2.06 m
CR-162	STM, INV. 70.22	SAN, TOP. 69.25	0.97 m
CR-163	SAN, INV. 72.36	STM, TOP. 71.87	0.49 m
CR-164	STM, INV. 73.57	WM, TOP. 72.66	0.91 m
CR-165	STM, INV. 73.52	SAN, TOP. 69.15	4.37 m
CR-166	STM, INV. 73.41	WM, TOP. 72.45	0.96 m
CR-167	STM, INV. 73.36	SAN, TOP. 69.10	4.26 m
CR-168	STM, INV. 72.16	WM, TOP. 71.42	0.74 m
CR-169	STM, INV. 72.10	SAN, TOP. 68.87	3.23 m
CR-170	WM, INV. 71.43	STM, TOP. 71.04	0.39 m
CR-171	STM, INV. 69.99	SAN, TOP. 68.81	1.19 m
CR-172	STM, INV. 72.14	WM, TOP. 71.22	0.92 m
CR-173	STM, INV. 72.08	WM, TOP. 68.68	3.39 m
CR-174	SAN, INV. 71.75	STM, TOP. 71.25	0.51 m
CR-175	SAN, INV. 72.04	STM, TOP. 71.13	0.90 m
CR-176	STM, INV. 69.55	SAN, TOP. 64.95	4.60 m
CR-177	STM, INV. 71.76	WM, TOP. 70.96	0.80 m
CR-178	STM, INV. 71.03	WM, TOP. 70.19	0.84 m
CR-179	STM, INV. 71.52	STM, TOP. 71.02	0.50 m
CR-180	STM, INV. 71.32	STM, TOP. 70.83	0.49 m
CR-181	STM, INV. 69.36	STM, TOP. 69.05	0.31 m
CR-182	STM, INV. 69.35	SAN, TOP. 66.79	2.57 m
CR-183	STM, INV. 68.07	SAN, TOP. 66.60	1.47 m
CR-184	WM, INV. 67.67	SAN, TOP. 66.61	1.06 m
CR-185	STM, INV. 68.07	WM, TOP. 67.78	0.29 m
CR-186	WM, INV. 67.46	SAN, TOP. 66.63	0.83 m
CR-187	STM, INV. 68.07	WM, TOP. 67.72	0.35 m
CR-188	STM, INV. 69.39	WM, TOP. 67.75	1.64 m
CR-189	WM, INV. 67.41	SAN, TOP. 66.64	0.77 m
CR-190	STM, INV. 68.07	WM, TOP. 67.68	0.39 m
CR-191	STM, INV. 69.39	WM, TOP. 67.76	1.63 m
CR-192	STM, INV. 68.16	WM, TOP. 67.46	0.70 m
CR-193	STM, INV. 68.25	SAN, TOP. 67.54	0.71 m
CR-194	STM, INV. 68.31	WM, TOP. 67.15	1.16 m
CR-195	SAN, INV. 66.88	WM, TOP. 66.63	0.25 m

*IF THE CROSSING CLEARANCE IS LESS THAN 0.3m FOR SEWER, NON-SHRINKABLE CONCRETE SHALL BE USED IN ACCORDANCE WITH CITY OF OTTAWA STANDARD DETAIL S10.
*IF THE CROSSING CLEARANCE IS LESS THAN 0.5m FOR WATERMAIN WITH UTILITIES, NON-SHRINKABLE CONCRETE SHALL BE USED IN ACCORDANCE WITH CITY OF OTTAWA STANDARD DETAIL R20.

WATERMAIN TABLE 50+000 (ROAD L TO E)

STATION	OFFSET (m)	TYPE OF FITTING	GROUND ELEVATION	TOP OF WM. ELEVATION
50+079.39	0.80 LT	CONNECT TO EX. 300mm WM (ROAD L)	78.03	75.60
50+079.39	1.00 LT	VALVE & VALVE BOX (HYD.), PER W24	78.02	75.60
50+079.39	7.14 LT	FIRE HYDRANT, PER W24	77.98	75.58

WATERMAIN TABLE 40+000 (ROAD L)

STATION	OFFSET (m)	TYPE OF FITTING	GROUND ELEVATION	TOP OF WM. ELEVATION
40+043.93	0.00 RT	CONNECT TO EX. 300mm WM (ROAD L)	70.11	EXIST.
40+043.93	3.00 RT	CR-186, REFER TO CROSSING TABLE	70.16	67.70
40+043.93	4.89 RT	CR-187, REFER TO CROSSING TABLE	70.12	67.72
40+043.93	11.93 RT	VALVE & VALVE BOX, PER W24	70.19	67.79
40+043.93	21.96 RT	CR-188, REFER TO CROSSING TABLE	70.15	67.75
40+043.92	28.64 RT	22.5° HORZ. BEND	71.85	69.45
40+043.62	29.39 RT	WM CAP	72.09	69.50
40+047.93	0.00 RT	CONNECT TO EX. 300mm WM (ROAD L)	70.07	EXIST.
40+047.93	3.00 RT	CR-189, REFER TO CROSSING TABLE	70.11	67.71
40+047.93	4.92 RT	CR-190, REFER TO CROSSING TABLE	70.08	67.68
40+047.93	11.66 RT	VALVE & VALVE BOX, PER W24	70.21	67.81
40+047.93	23.25 RT	CR-191, REFER TO CROSSING TABLE	70.16	67.76
40+047.93	29.43 RT	22.5° HORZ. BEND	71.37	68.97
40+047.23	31.11 RT	WM CAP	71.90	69.50
40+110.50	0.00 LT	CONNECT TO EX. 400mm WM (ROAD L)	69.91	EXIST.
40+112.30	0.00 LT	VALVE & VALVE BOX, PER W24	69.91	67.51
40+128.94	0.00 LT	TEE 300x150	69.95	67.55
40+128.94	1.00RT	VALVE & VALVE BOX (HYD.), PER W24	69.94	67.55
40+128.94	3.00RT	CR-196, REFER TO CROSSING TABLE	69.92	67.52
40+128.94	5.75RT	CR-192, REFER TO CROSSING TABLE	69.86	67.46
40+128.94	13.68 RT	FIRE HYDRANT, PER W24	69.73	67.33
40+136.62	0.00 LT	11.25° HORZ. BEND	69.86	67.46
40+138.95	0.00 LT	22.5° HORZ. BEND	69.83	67.43
40+194.37	0.00 LT	TEE 300x150	69.65	67.25
40+194.37	1.00 RT	VALVE & VALVE BOX (HYD.), PER W24	69.63	67.23
40+194.37	1.00 RT	CR-194, REFER TO CROSSING TABLE	69.59	67.19
40+194.37	1.00 RT	CR-195, REFER TO CROSSING TABLE	69.55	67.15
40+194.37	11.26 RT	45° HORZ. BEND	69.46	67.06
40+197.00	13.89 RT	FIRE HYDRANT, PER W24	69.47	67.07
40+195.37	0.00 LT	CAP WM	69.64	67.24

WATERMAIN TABLE 5+000 (ROAD E)

STATION	OFFSET (m)	TYPE OF FITTING	GROUND ELEVATION	TOP OF WM. ELEVATION
5+188.79	1.90 LT	CONNECT TO EX. 300mm WM (ROAD L)	75.18	EXIST.
5+188.79	0.90 LT	VALVE & VALVE BOX, PER W24	75.16	72.70
5+188.79	0.61 LT	45° VERT. BEND	75.17	72.71
5+188.79	0.25 LT	45° VERT. BEND	75.18	73.08
5+188.79	0.90 RT	CR-124, REFER TO CROSSING TABLE	75.19	73.10
5+188.79	2.06 RT	45° VERT. BEND	75.21	73.13
5+188.79	2.37 RT	45° VERT. BEND	75.22	72.83
5+188.79	3.26 RT	CR-126, REFER TO CROSSING TABLE	75.24	72.84
5+188.79	4.77 RT	CAP WM	75.42	72.88
5+191.79	1.91 LT	CONNECT TO EX. 300mm WM (ROAD L)	75.14	EXIST.
5+191.79	1.11 LT	VALVE & VALVE BOX, PER W24	75.12	72.72
5+191.79	0.60 LT	45° VERT. BEND	75.13	72.73
5+191.79	0.26 LT	45° VERT. BEND	75.14	73.09
5+191.79	0.90 RT	CR-121, REFER TO CROSSING TABLE	75.16	73.11
5+191.79	2.06 RT	45° VERT. BEND	75.19	73.14
5+191.79	2.41 RT	45° VERT. BEND	75.19	72.80
5+191.79	3.26 RT	CR-122, REFER TO CROSSING TABLE	75.21	72.81
5+191.79	4.80 RT	CAP WM	75.39	72.85

STORM MAINTENANCE HOLE DATA

NO.	STATION	OFFSET	COVER	STRUCTURE	INVERT ELEVATIONS T/GRATE	INVERT ELEVATIONS INVERTS
CBMHST 101	---	---	SLF / S28.1	OPSD 701.010	76.41	74.40 W 73.84 SE 73.63 NW
CBMHST 103	---	---	SLF / S28.1	OPSD 701.010	74.28	72.13 SE 72.16 SW 72.10 NW
CBMHST 104	---	---	SLF / S28.1	OPSD 701.010	76.59	75.17 SE 75.19 NE 74.14 NW
CBMHST 105	---	---	SLF / S28.1	OPSD 701.010	74.73	72.43 SE 72.40 NW
CBMHST 108	3+086.48	4.12 LT	SLF / S28.1	OPSD 701.011	81.54	71.56 SE 71.56 NW
CBMHST 109	3+051.87	3.59 LT	SLF / S28.1	OPSD 701.011	81.00	71.49 SE 71.49 N
CBMHST 110	3+035.35	20.20 LT	SLF / S28.1	OPSD 701.011	79.38	71.45 S 71.45 NE
CBMHST 111	3+101.07	4.71 LT	SLF / S28.1	OPSD 701.010	82.40	72.48 NE 71.59 NW
MHST 120	7+142.55	6.32 RT	SLF / S24.1	OPSD 701.013	74.18	63.28 NE
MHST 131	40+082.95	4.68 RT	SLF / S24.1	OPSD 701.011	69.71	68.12 SW 68.12 N
MHST 133	40+137.31	5.95 RT	SLF / S24.1	OPSD 701.011	69.80	68.25 S 68.79 NW 68.17 NE
MHST 139	40+208.28	5.00 RT	SLF/S24.1	OPSD 701.011	69.85	68.49 W 68.32 N
MHST 170	5+282.20	13.78 LT	SLF / S24.1	OPSD 701.010	74.51	71.96 NE 71.93 SW
OGS 3	5+274.71	276.34 LT	SLF / 24.1	OPSD 701.013	70.46	67.63 W 67.63 E

- OFFSETS ARE FROM CONTROL LINE TO CENTER OF STRUCTURE
- SLF DENOTES SELF LEVEL FRAME

STORM LANDSCAPE DRAIN DATA

NO.	STATION	OFFSET	COVER	STRUCTURE	INVERT ELEVATIONS T/FRAME	INVERT ELEVATIONS INVERTS
LD 101	---	---	S30	S30	81.82	80.60 SE 80.60 NW
LD 102	---	---	S30	S30	81.97	80.85 NE 80.85 NW
LD 103	---	---	S30	S30	82.08	81.04 NE 81.04 SW
LD 104	---	---	S31	S31	82.26	81.33 SW
LD 105	40+099.70	15.68 LT	S30	S30	69.40	68.35 NE
LD 106	40+087.58	13.07 LT	S30	S30	69.22	68.29 SW 68.29 N
LD 107	40+053.82	7.30 LT	S30	S30	69.09	68.16 S 68.16 NE
LD 108	40+022.62	10.91 RT	S30	S30	68.92	67.68 N
LD 109	40+010.89	7.24 RT	S30	S30	68.89	67.64 S 67.64 NE
LD 110	40+000.85	6.49 RT	S30	S30	68.85	67.60 SW 67.60 NW

- OFFSETS ARE FROM CONTROL LINE TO CENTER OF STRUCTURE

SANITARY MAINTENANCE HOLE DATA

NO.	STATION	OFFSET	COVER	STRUCTURE	INVERT ELEVATIONS T/GRATE	INVERT ELEVATIONS INVERTS
MHSA 12	40+085.20	3.00 RT	SLF / S24	OPSD 701.010	69.75	66.50 SW 66.46 N
MHSA 13	40+138.52	3.36 RT	SLF / S24	OPSD 701.010	69.81	66.70 S 67.32 NW 66.67 NE
MHSA 14	40+209.74	3.00 RT	SLF / S24	OPSD 701.010	69.89	66.99 W 66.93 N

- OFFSETS ARE FROM CONTROL LINE TO CENTER OF STRUCTURE
- SLF DENOTES SELF LEVEL FRAME

CULVERT DATA

CULVERT ID	DIA. (mm)	TYPE	LENGTH (m)	SLOPE	INVERT ELEVATIONS UPSTR.	INVERT ELEVATIONS DOWNSTR.
CULV 301	300	CSP	10.89	2.00%	66.03	65.82
CULV 302	300	CSP	8.79	0.50%	65.60	65.55
CULV 303	300	CSP	6.69	0.50%	65.54	65.51

STORM PIPE DATA

PIPE ID	FROM	TO	DIA. (mm)	TYPE	LENGTH (m)	SLOPE	INVERT ELEVATIONS UPSTR.	INVERT ELEVATIONS DOWNSTR.
ST 100	MHST 120	CAP	1500	CONC. 140D	28.85	0.10%	63.28	63.25
ST 130	CB116	CBMHST 104	300	PVC SDR35	17.38	2.00%	75.52	75.17
ST 131	CB118	CBMHST 104	300	PVC SDR35	16.50	2.00%	75.52	75.19
ST 132	CBMHST 104	CBMHST 101	300	PVC SDR35	15.14	2.00%	74.14	73.84
ST 133	DICB6	CBMHST 101	200	PVC SDR35	15.57	2.00%	74.71	74.40
ST 136	CBMHST 101	CBMHST 105	375	Concrete Pipe SI	48.02	2.50%	73.63	72.43
ST 137	CBMHST 105	CBMHST 103	375	Concrete Pipe SI	17.58	1.54%	72.40	72.13
ST 138	CB115	CBMHST 103	375	Concrete Pipe SI	20.08	1.00%	72.36	72.16
ST 139	CBMHST 103	CHAMBER 102	375	PVC SDR35	2.58	1.00%	72.10	72.07
ST 140	CHAMBER 102	MHST 170	375	Concrete Pipe SI	10.58	1.00%	72.07	71.96
ST 141	MHST 170	MHST 158	300	PVC SDR35	13.45	1.00%	71.93	71.80
ST 142	LD 104	LD 103	300	PVC Pipe SI	58.79	0.50%	81.33	81.04
ST 143	LD 103	LD 102	375	PVC Pipe SI	37.62	0.50%	81.04	80.85
ST 144	LD 102	LD 101	375	PVC Pipe SI	49.25	0.50%	80.85	80.60
ST 145	LD 101	DICB4	375	PVC Pipe SI	62.73	0.50%	80.60	80.29
ST 146	DICB4	MHST154A	300	Concrete Pipe SI	16.20	2.00%	80.23	79.91
ST 147	CAP 018	CBMHST 111	200	PVC SDR35	2.25	1.00%	72.50	72.48
ST 148	CBMHST 111	CBMHST 108	600	PVC SDR35	15.32	0.20%	71.59	71.56
ST 149	CBMHST 108	CBMHST 109	600	PVC SDR35	35.73	0.20%	71.56	71.49
ST 150	CBMHST 109	CBMHST 110	600	PVC SDR35	20.78	0.20%	71.49	71.45
ST 151	CBMHST 110	MHST 135	600	PVC SDR35	17.93	0.20%	71.45	71.41
ST 152	CUP	MHST 158 TO MHST 141 PIPE	375	PVC SDR35	5.49	1.00%	72.80	72.75
ST 153	BLDG AREA 51	MHST 158 TO MHST 141 PIPE	375	PVC SDR35	32.56	1.00%	73.50	73.17
ST 154	BLDG AREA 51	MHST 160	450	PVC SDR35	33.22	1.00%	73.50	73.17
ST 155	CUP	MAIN PIPE	375	PVC SDR35	2.51	1.00%	72.80	72.77
ST 156	BLDG AREA 50	MAIN PIPE	450	PVC SDR35	20.47	2.00%	73.15	72.74
ST 157	BLDG AREA 49	MAIN PIPE	300	PVC SDR35	21.02	2.00%	72.80	72.38
ST 158	CHAMBER 104	MHST 145	900	CONC. 100D	8.42	1.00%	70.05	69.97
ST 159	BLDG AREA 48	MAIN PIPE	300	PVC SDR35	10.80	2.00%	72.00	71.78
ST 160	BLDG AREA 56	MAIN PIPE	450	PVC SDR35	20.85	2.00%	72.50	72.08
ST 161	BLDG AREA 55	MAIN PIPE	450	PVC SDR35	47.02	2.00%	72.50	71.56
ST 162	BLDG AREA 54	MHST 142	300	PVC SDR35	2.45	2.00%	71.38	71.33
ST 163	LD 110	DICB 2	300	PVC Pipe SI	4.71	0.33%	67.60	67.58
ST 164	LD 109	LD 110	300	PVC Pipe SI	12.90	0.30%	67.64	67.60
ST 165	LD 108	LD 109	300	PVC Pipe SI	12.29	0.30%	67.68	67.64
ST 167	BLDG AREA 52	MHST 139	525	CONC. 50D	28.56	1.50%	68.92	68.49
ST 168	MHST 139	MHST 133	750	CONC. 50D	72.94	0.10%	68.32	68.25
ST 169	BLDG AREA 53	MHST 133	300	PVC SDR35	24.90	1.00%	69.04	68.79
ST 170	MHST 133	MHST 131	825	CONC. 50D	51.37	0.10%	68.17	68.12
ST 171	MHST 131	MHST 130	825	CONC. 50D	47.86	0.10%	68.12	68.07
ST 174	LD 106	LD 107	450	PVC Pipe SI	42.17	0.30%	68.29	68.16
ST 175	LD 107	DICB8	450	PVC Pipe SI	16.70	0.30%	68.16	68.11
ST 177	LD 105	LD 106	450	PVC Pipe SI	12.40	0.50%	68.35	68.29

SANITARY PIPE DATA

PIPE ID	FROM	TO	DIA. (mm)	TYPE	LENGTH (m)	SLOPE	INVERT ELEVATIONS UPSTR.	INVERT ELEVATIONS DOWNSTR.
SA 131	CAP 108	MHSA 13	200	PVC SDR35	27.33	1.00%	67.59	67.32
SA 132	CAP 107	MHSA 14	250	PVC SDR35	30.53	1.00%	67.30	66.99
SA 133	MHSA 14	MHSA 13	300	PVC SDR35	72.37	0.32%	66.93	66.70
SA 134	MHSA 13	MHSA 12	300	PVC SDR35	51.57	0.32%	66.67	66.50
SA 135	MHSA 12	MHSA 11	300	PVC SDR35	53.13	0.32%	66.46	66.29
SA 136	CAP 109	MHSA 20	200	PVC SDR35	5.29	2.00%	71.38	71.27
SA 137	CAP 111	MHSA 23	150	PVC SDR35	50.50	2.00%	72.50	71.49
SA 138	CAP 110	MHSA 23A	150	PVC SDR35	24.33	2.00%	72.50	72.01
SA 139	CAP 101	MHSA 25	200	PVC SDR35	13.98	2.00%	72.00	71.72
SA 140	CAP 102	MHSA 28	200	PVC SDR35	24.46	2.00%	72.80	72.31
SA 141	CAP 113	MHSA 30	200	PVC SDR35	23.66	2.00%	73.15	72.68
SA 142	CAP 103	MHSA 54	200	PVC SDR35	5.93	1.00%	72.96	72.90
SA 143	CAP 104	MHSA 54	250	PVC SDR35	30.86	1.00%	72.69	72.38
SA 144	CAP 105	MHSA 55	250	PVC SDR35	30.72	1.00%	72.99	72.68
SA 145	CAP 106	MHSA 56	200	PVC SDR35	7.49	1.00%	73.13	73.06

CATCHBASIN DATA

NO.	STATION	OFFSET	COVER	STRUCTURE	ELEVATION T/FRAME	ELEVATION INVERTS	ICD ID	CB OUTLET LEAD SIZE	CB OUTLET LEAD LENGTH	CB OUTLET LEAD SLOPE
CB40	10+020.06	9.49 LT	S19	OPSD 701.010 B	72.49	71.11 SE	---	200mm	7.07m	2.00%
CB41	6+006.28	18.09 RT	S19	OPSD 701.010 B	83.13	81.75 S	---	200mm	5.47m	2.00%
CB42	6+014.20	5.16 LT	S19	OPSD 701.010 B	82.89	81.51 SE	---	200mm	6.28m	2.00%
CB43	6+020.59	3.53 RT	S19	OPSD 701.010 B	82.53	81.15 NW	---	200mm	1.60m	2.00%
CB44	6+029.25	4.04 LT	S19	OPSD 701.010 B	82.12	80.74 SE	---	200mm	5.23m	2.00%
CB45	6+035.59	4.00 RT	S19	OPSD 701.010 B	81.80	80.42 NW	---	200mm	2.02m	2.00%
CB46	6+044.24	4.00 LT	S19	OPSD 701.010 B	81.36	79.98 SE	---	200mm	5.24m	2.00%
CB47	6+050.59	4.00 RT	S19	OPSD 701.010 B	81.05	79.67 NW	---	200mm	1.74m	2.00%
CB48	6+059.24	4.00 LT	S19	OPSD 701.010 B	80.61	79.23 SE	---	200mm	5.06m	2.00%
CB49	6+074.24	4.00 LT	S19	OPSD 701.010 B	79.86	78.55 SE	---	200mm	4.68m	2.00%
CB50	6+087.26	4.00 RT	S22/S23	OPSD 701.010 B	79.36	78.05 NW	---	200mm	1.16m	2.00%
CB51	6+089.24	4.00 LT	S22/S23	OPSD 701.010 B	79.26	77.95 SE	---	200mm	4.83m	2.00%
CB52	6+102.26	4.00 RT	S22/S23	OPSD 701.010 B	78.61	77.30 NW	---	200mm	1.06m	2.00%
CB53	6+104.24	4.00 LT	S22/S23	OPSD 701.010 B	78.51	77.20 SE	---	200mm	4.89m	2.00%
CB54	6+117.26	4.00 RT	S22/S23	OPSD 701.010 B	77.86	76.55 NW	---	200mm	0.89m	2.00%
CB55	6+119.24	4.00 LT	S22/S23	OPSD 701.010 B	77.76	76.45 SE	---	200mm	5.04m	2.00%
CB56	6+132.26	4.00 RT	S22/S23	OPSD 701.010 B	77.11	75.80 NW	---	200mm	0.86m	2.00%
CB57	6+134.24	4.00 LT	S22/S23	OPSD 701.010 B	77.01	75.70 SE	---	200mm	5.13m	2.00%
CB58	6+145.43	4.00 RT	S22/S23	OPSD 701.010 B	76.45	75.14 NW	---	200mm	0.79m	2.00%
CB59	6+149.53	4.05 LT	S22/S23	OPSD 701.010 B	76.27	74.96 SE	---	200mm	5.27m	2.00%
CB60	6+156.64	6.17 RT	S19	OPSD 701.010 B	75.82	74.44 NW	---	200mm	2.39m	2.00%
CB61	6+167.12	4.49 LT	S22/S23	OPSD 701.010 B	75.65	74.34 E	---	200mm	6.22m	4.41%
CB62	6+209.66	7.54 LT*	S19	OPSD 701.010 B	75.03	73.65 E	---	200mm	8.53m	2.00%
CB63	6+216	5.87 RT	S19	OPSD 701.010 B	75.00	73.62 W	---	200mm	2.90m	2.00%
CB64	6+186.80	4.96 RT*	S19	OPSD 701.010 B	75.24	73.86 W	---	200mm	1.22m	2.31%
CB65	6+205.61	4.76 RT*	S19	OPSD 701.010 B	75.05	73.67 W	---	200mm	1.86m	2.22%
CB66	7+151.26	9.54 RT	S19	OPSD 701.010 B	74.33	72.95 NW	---	200mm	8.73m	2.00%
CB67	7+133.26	3.19 RT	S19	OPSD 701.010 B	74.03	72.65 E	---	200mm	9.07m	2.00%
CB68	7+022.50	5.45 LT*	S19	OPSD 701.010 B	73.54	72.16 S	---	200mm	6.15m	2.00%
CB69	10+003.76	6.32 RT	S19	OPSD 701.010 B	73.51	72.13 NW	---	200mm	6.76m	2.00%
CB70	10+005	10.59 LT	S19	OPSD 701.010 B	73.25	71.87 SE	---	200mm	8.07m	2.00%
CB71	10+018.87	6.30 RT	S19	OPSD 701.010 B	72.68	71.30 NW	---	200mm	6.40m	2.00%
CB72	5+058.49	3.95 LT	S22/S23	OPSD 701.010 B	79.09	77.78 SW	---	200mm	5.96m	2.00%
CB73	5+300	5.15 RT*	S19	OPSD 701.010 B	74.98	73.60 NE	---	375mm	2.80m	2.00%
CB74	5+074.13	3.90 LT	S22/S23	OPSD 701.010 B	78.52	77.21 SW	---	200mm	7.61m	2.00%
CB75	5+043.09	3.95 LT	S22/S23	OPSD 701.010 B	79.66	78.35 SW	---	200mm	5.48m	2.00%
CB76	5+080.31	4.07 RT	S19	OPSD 701.010 B	78.18	76.80 SW	---	200mm	1.44m	2.00%
CB77	5+064.31	5.32 RT	S19	OPSD 701.010 B	78.76	77.38 N	---	200mm	1.65m	2.00%
CB78	5+089.98	3.93 LT	S19	OPSD 701.010 B	77.78	76.40 S	---	200mm	9.88m	2.00%
CB79	5+096.85	3.97 LT	S19	OPSD 701.010 B	77.53	76.15 S	---	200mm	9.31m	2.00%
CB80	5+094.77	4.05 RT	S19	OPSD 701.010 B	77.65	76.27 S	---	200mm	1.42m	2.00%
CB81	5+109.42	4.00 RT	S19	OPSD 701.010 B	77.24	75.86 S	---	200mm	1.22m	2.00%
CB82	5+490.93	4.15 LT	S19	OPSD 701.010 B	82.45	81.07 SE	---	200mm	5.85m	2.00%
CB83	5+493.21	4.00 RT	S19	OPSD 701.010 B	82.53	81.15 NW	---	200mm	1.84m	2.00%
CB84	5+471.08	4.01 LT	S19	OPSD 701.010 B	81.69	80.31 SE	---	200mm	5.69m	2.00%
CB85	5+478.21	4.00 RT	S19	OPSD 701.010 B	81.97	80.59 NW	---	200mm	1.83m	2.00%
CB86	5+438.12	4.00 LT	S19	OPSD 701.010 B	80.43	79.05 SE	---	200mm	5.70m	2.00%
CB87	5+463.21	4.00 RT	S19	OPSD 701.010 B	81.39	80.01 NW	---	200mm	1.83m	2.00%
CB88	5+421.92	4.01 LT	S19	OPSD 701.010 B	79.82	78.44 S	---	200mm	6.51m	2.00%
CB89	5+448.21	4.00 RT	S19	OPSD 701.010 B	80.82	79.44 NW	---	200mm	1.83m	2.00%
CB90	5+433.21	4.00 RT	S19	OPSD 701.010 B	80.39	79.01 NW	---	200mm	1.83m	2.00%
CB91	5+404.58	4.04 LT	S19	OPSD 701.010 B	79.20	77.82 S	---	200mm	6.03m	2.00%
CB92	5+417.26	6.37 RT	S19	OPSD 701.010 B	79.83	78.45 N	---	200mm	4.08m	2.00%
CB93	5+387.38	4.05 LT	S19	OPSD 701.010 B	78.50	77.12 SW	---	200mm	6.27m	2.00%
CB94	5+404.66	7.26 RT	S19	OPSD 701.010 B	79.37	77.99 N	---	200mm	4.43m	2.00%
CB95	5+390.87	5.86 RT	S19	OPSD 701.010 B	78.81	77.43 NE	---	200mm	3.43m	2.00%
CB96	5+377.38	3.98 RT	S19	OPSD 701.010 B	78.25	76.87 NE	---	200mm	1.58m	2.00%
CB97	5+371.38	4.00 LT	S22/S23	OPSD 701.010 B	78.02	76.71 SW	---	200mm	5.69m	2.00%
CB98	5+362.21	4.00 RT	S19	OPSD 701.010 B	77.52	76.23 NE	---	200mm	1.47m	2.00%
CB99	5+356.38	4.02 LT	S22/S23	OPSD 701.010 B	77.45	76.13 SW	---	200mm	5.76m	2.00%
CB100	5+271.19	4.81 LT	S19	OPSD 701.010 D	74.64	73.71 S	---	200mm	6.56m	2.00%
CB101	5+342.70	4.03 LT	S22/S23	OPSD 701.010 B	76.92	75.61 SW	---	200mm	5.81m	2.00%
CB102	5+332.22	4.00 RT	S19	OPSD 701.010 B	76.37	74.99 NE	---	200mm	1.51m	2.00%
CB103	5+311.39	4.02 LT	S22/S23	OPSD 701.010 C	75.72	74.72 SW	---	200mm	5.76m	2.00%
CB104	5+317.22	4.00 RT	S19	OPSD 701.010 B	75.79	74.41 NE	---	200mm	1.64m	2.00%
CB105	5+296.39	4.03 LT	S22/S23	OPSD 701.010 C	75.15	74.15 SW	---	200mm	5.73m	2.00%
CB106	5+302.22	4.00 RT	S19	OPSD 701.010 B	75.22	73.84 NE	---	200mm	1.67m	2.00%
CB107	5+256.45	4.03 LT	S19	OPSD 701.010 C	74.72	73.65 S	---	200mm	6.63m	2.00%
CB108	40+196.93	10.39 RT*	S19	OPSD 701.010 D	69.42	68.49 E	---	200mm	4.96m	1.00%
CB109	40+159	11.14 RT*	S19	OPSD 701.010 D	69.42	68.49 E	---	200mm	5.74m	1.00%
CB110	40+110.23	15.47 RT*	S19	OPSD 701.010 D	69.58	68.55 SE	---	200mm	9.28m	1.00%
CB111	40+092.25	7.61 RT	S19	OPSD 701.010 D	69.58	68.65 SE	---	200mm	1.43m	1.00%
CB113	6+192.75	4.61 LT*	S19	OPSD 701.010 B	71.70	70.32 E	---	200mm	6.43m	2.00%
CB114	6+224.63	5.53 LT*	S19	OPSD 701.010 B	74.83	73.45 E	---	200mm	6.56m	2.00%
CB115	---	---	S19	OPSD 701.010	74.29	72.36 NE	---	375mm	20.08m	1.00%
CB116	---	---	S19	OPSD 701.010	76.90	75.52 NW	---	300mm	17.39m	2.00%
CB117	6+287.26	8.21 LT*	S19	OPSD 701.010 B	73.63	72.25 E	---	200mm	9.20m	2.00%
CB118	---	---	S19	OPSD 701.010	76.90	75.52 SW	---	300mm	16.50m	2.00%
CB119	5+203.21	4.04 LT	S19	OPSD 701.010 B	74.98	73.60 S	---	200mm	6.79m	2.00%
CB120	5+221.38	4.03 LT	S19	OPSD 701.010 B	74.89	73.51 S	---	200mm	6.71m	2.00%
CB121	5+185.89	4.01 LT	S19	OPSD 701.010 B	75.13	73.75 S	---	200mm	6.63m	2.00%
CB122	5+180.48	15.31 LT	S19	OPSD 701.010 B	75.24	73.86 S	---	200mm	17.93m	2.00%
CB123	5+152.66	4.00 LT	S19	OPSD 701.010	76.16	74.40 S 74.40 N	---	200mm	6.72m	2.00%
CB124	5+152.72	15.31 LT	S19	OPSD 701.010 B	76.01	74.63 S	---	200mm	11.31m	2.00%
CB127	20+175.03	11.94 RT	S19	OPSD 701.010 B	69.36	67.98 N	---	200mm	4.12m	2.00%
CB128	20+162.15	11.73 RT*	S19	OPSD 701.010 B	69.49	68.11 NE	---	200mm	3.88m	2.00%
CB129	5+041.70	6.80 RT	S19	OPSD 701.010 B	79.50	78.12 NE	---	200mm	3.89m	2.00%
DICB4	3+116.38	5.37 LT*	S19	OPSD 701.030	81.63	80.23 NW 80.29 SE	ICD 110	300mm	16.20m	2.00%
DICB5	7+324.88	2.57 LT*	S19	OPSD 701.030	70.17	69.07 S	---	200mm	3.34m	2.00%
DICB6	---	---	S19	OPSD 701.030	76.09	74.71 E	---	200mm	15.57m	2.00%
DICB8	40+038.51	13.98 LT*	S19	OPSD 705.030	69.04	68.11 N 68.11 SW	ICD 111	250mm	6.19m	0.50%

- OFFSETS ARE FROM CONTROL LINE TO FACE OF CURB FOR ALL CATCH BASINS
- OFFSETS DISTANCE MARKED WITH AN (*) ARE TO THE CENTER OF THE BASE
- ALL S19 T/FRAME ELEVATION REFER TO ASPHALT ELEVATION AT ENTRY POINT OF THE CATCH BASINS
- ALL S22/S23 T/FRAME ELEVATION REFER TO TOP OF CURB ELEVATION AT ENTRY POINT OF THE CATCH BASINS

ICD DATA

ID	DRAINAGE AREA NO.	LOCATION	STORAGE ID	OUTLET DIAMETER	FLOW (L/s)	HEAD (m)	HGL ELEVATION	MODEL**	STORAGE VOLUME REQUIRED (cu.m.)	AVAILABLE STORAGE VOLUME (cu.m.)
ICD 102	STM 61 & 64	MHST 170	-	300mm	17.18 (100YR + 20%) 17.18 (100YR) 16.95 (5YR) 14.85 (2YR)	-	-	CUSTOM BUILT PLATE	-	-
ICD 103	STM 44	MHST 155	-	900mm	1498.95 (100YR + 20%) 1385.39 (100YR) 763.88 (5YR) 521.62 (2YR)	-	-	CUSTOM BUILT PLATE	-	-
ICD 104	STM 40, 41, 42, 43, 44, 45, 45A, 47, 49, 50, 51, 61, 63, 64, & 65	MHST 145	-	1200mm	1816.87 (100YR + 20%) 1818.47 (100YR) 1036.99 (5YR) 596.44 (2YR)	-	-	CUSTOM BUILT PLATE	-	-
ICD 105	STM 40, 41, 42, 43, 44, 45, 45A, 47, 48, 49, 50, 51, 54, 55, 56, 61, 63, 64 & 65	MHST 142	-	1200mm	1746.85 (100YR + 20%) 1589.90 (100YR) 1082.53 (5YR) 634.73 (2YR)	-	-	CUSTOM BUILT PLATE	-	-
ICD 110	STM 63	DICB 4	S-63	250mm	99.51 (100YR + 20%) 97.88 (100YR) 85.97 (5YR) 70.94 (2YR)	4.11 (100YR + 20%) 3.99 (100YR) 3.14 (5YR) 2.18 (2YR)	82.31 (100YR + 20%) 82.19 (100YR) 81.34 (5YR) 80.38 (2YR)	HYDROVEX MODEL	180 (100YR + 20%) 117 (100YR) 16 (5YR) 1 (2YR)	180 (100YR + 20%) 117 (100YR) 16 (5YR) 1 (2YR)
ICD 111	STM 60, 60A, 60B, & 60C	DICB 1	S-60	250mm	4.36 (100YR + 20%) 4.18 (100YR) 3.68 (5YR) 3.38 (2YR)	2.16 (100YR + 20%) 1.98 (100YR) 1.56 (5YR) 1.35 (2YR)	70.00 (100YR + 20%) 69.82 (100YR) 69.40 (5YR) 69.19 (2YR)	HYDROVEX MODEL	287 (100YR + 20%) 190 (100YR) 47 (5YR) 11 (2YR)	287 (100YR + 20%) 190 (100YR) 47 (5YR) 11 (2YR)
ICD 5***	STM 21B, 46, & 58	CB 35	S-21B	300mm	4.21 (100YR + 20%) 4.10 (100YR) 3.85 (5YR) 3.76 (2YR)	2.01 (100YR + 20%) 1.91 (100YR) 1.71 (5YR) 1.63 (2YR)	65.55 (100YR + 20%) 65.45 (100YR) 65.25 (5YR) 65.17 (2YR)	HYDROVEX MODEL NO. 75 VHV-1	889 (100YR + 20%) 662 (100YR) 213 (5YR) 71 (2YR)	889 (100YR + 20%) 662 (100YR) 213 (5YR) 71 (2YR)
ICD 7***	STM 26B	DICB 2	S-26B	200mm	15.83 (100YR + 20%) 15.46 (100YR) 14.03 (5YR) 12.92 (2YR)	2.35 (100YR + 20%) 2.24 (100YR) 1.86 (5YR) 1.60 (2YR)	69.68 (100YR + 20%) 69.57 (100YR) 69.19 (5YR) 68.93 (2YR)	HYDROVEX MODEL NO. 100 VHV-1	284 (100YR + 20%) 204 (100YR) 48 (5YR) 10 (2YR)	284 (100YR + 20%) 204 (100YR) 48 (5YR) 10 (2YR)
ICD 8***	STM 26D	DICB 1	S-26D	300mm	3.59 (100YR + 20%) 3.49 (100YR) 3.21 (5YR) 1.95 (2YR)	1.49 (100YR + 20%) 1.42 (100YR) 1.22 (5YR) 0.44 (2YR)	69.15 (100YR + 20%) 69.05 (100YR) 68.88 (5YR) 68.10 (2YR)	HYDROVEX MODEL NO. 50 VHV-1	28 (100YR + 20%) 19 (100YR) 3 (5YR) 0 (2YR)	28 (100YR + 20%) 19 (100YR) 3 (5YR) 0 (2YR)

*ICD SHOP DRAWINGS TO BE SUBMITTED FOR REVIEW AND APPROVAL
**ICD MODELS TO BE AS SPECIFIED OR APPROVED EQUIVALENT
***ICD MODELS AS SPECIFIED IN PARKING GARAGE CONTRACT

WEIR DATA

ID	DRAINAGE AREA NO.	LOCATION	FLOW (L/s)	MODEL**
WEIR 102	STM 61 & 64	MHST 170	175.76 (100YR + 20%) 131.37 (100YR) 14.59 (5YR) 0.00 (2YR)	CUSTOM BUILT PLATE
WEIR 103	STM 44	MHST 155	683.36 (100YR + 20%) 19.89 (100YR) 0.00 (5YR) 0.00 (2YR)	CUSTOM BUILT PLATE
WEIR 104	STM 40, 41, 42, 43, 44, 45, 45A, 47, 49, 50, 51, 61, 63, 64, & 65	MHST 145	1097.56 (100YR + 20%) 139.30 (100YR) 0.00 (5YR) 0.00 (2YR)	CUSTOM BUILT PLATE
WEIR 105	STM 40, 41, 42, 43, 44, 45, 45A, 47, 48, 49, 50, 51, 54, 55, 56, 61, 63, 64 & 65	MHST 142	876.68 (100YR + 20%) 377.33 (100YR) 0.00 (5YR) 0.00 (2YR)	CUSTOM BUILT PLATE

APPROVED
By Lily Xu at 11:59 am, May 22, 2024

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, DEVELOPMENT, AND BUILDING SERVICES DEPARTMENT, CITY OF OTTAWA

THESE DRAWINGS ARE FOR INFORMATION PURPOSES ONLY AND ARE NOT INTENDED TO BE USED AS A BASIS FOR CONSTRUCTION. ANY USE OR MODIFICATION OF THESE DRAWINGS IS ENTIRELY AT THE USER'S OWN RISK. PLEASE REFER TO THE CONSTRUCTION-ISSUE DRAWINGS BEARING A PROFESSIONAL ENGINEER'S STAMP FOR DEFINITIVE INFORMATION.

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01/17/2024
PROVINCE OF ONTARIO

THE OTTAWA HOSPITAL - CIVIC CAMPUS REDEVELOPMENT

The Ottawa Hospital | L'Hôpital d'Ottawa

Architect	HDR
Landscape Architect	HDR
Civil Engineer	Parsons
Structural Engineer	EXP
Mechanical Engineer	Smith + Andersen
Electrical Engineer	Smith + Andersen
Plumbing Engineer	Smith + Andersen
Interior Designer	HDR
Equipment Planner	Colliers
Wayfinding	
Sheet Reviewer	Author

MARK	DATE	DESCRIPTION
01	2022-09-23	ISSUED FOR PRE-CONSULTATION
02	2022-10-28	DRAFT FOR 90% SD
03	2022-11-30	ISSUED FOR SPC & FLUDA - 1ST SUBMISSION
04	2022-12-02	ISSUED FOR 3A1-2
05	2023-02-24	ISSUED FOR RFP VERSION 1.0
06	2023-04-12	RE-ISSUED FOR SPC & FLUDA
07	2023-07-28	ISSUED FOR PSOS
08	2023-08-04	RE-ISSUED FOR PSOS
09	2023-09-29	ISSUED FOR REVIEW AND COSTING
10	2023-10-27	ISSUED FOR MOH 3A.3
11	2024-01-17	ISSUED FOR DELEGATED AUTHORITY REPORT

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PRELIMINARY
NOT FOR CONSTRUCTION

Sheet Name
STAGE 3: HOSPITAL DETAILS SERVICING TABLES

Sheet Number
C119

Project Status
STAGE 3

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