LEGEND

- SITE BOUNDARY
- ℄ SWALE AND DIRECTION OF FLOW
- 127.55 / 127.45 — PROPOSED ELEVATION / *EXISTING ELEVATION*
- 127.55(S) — PROPOSED SWALE ELEVATION
- 127.55 (boxed) — PROPOSED TERRACE ELEVATION
- MAXIMUM 3: 1 SIDESLOPE
- 2.0% — PARKING GRADE AND DIRECTION
- FFE — PROPOSED FINISHED FLOOR ELEVATION
- USF — PROPOSED UNDER SIDE OF FOOTING ELEVATION
- PROPOSED BUILDING ENTRANCE
- PROPOSED LIMIT OF BUILDING OVERHANG
- T/G= — TOP OF GRATE ELEVATION
- MH100 — PROPOSED STORM MANHOLE
- CB1 — PROPOSED CATCHBASIN
- CB1 — PROPOSED CATCHBASIN WITH TEMPORARY SILTSACK
- CBT1 — PROPOSED CATCHBASIN TEE
- CBE1 — PROPOSED CATCHBASIN ELBOW
- PROPOSED STORM SEWER AND DIRECTION OF FLOW
- PROPOSED CATCHBASIN LEAD AND DIRECTION OF FLOW
- PROPOSED CATCHBASIN SUBDRAIN AND DIRECTION OF FLOW
- MH101 — PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY SEWER AND DIRECTION OF FLOW
- PROPOSED WATERMAIN
- BEND — PROPOSED BEND AND THRUSTBLOCK 11.25°, 22.5°, 45° OR TEE
- VVB — PROPOSED VALVE AND VALVE BOX
- DMA (W3) — PROPOSED DISTRICT METERING AREA CHAMBER (PER CITY DETAIL W3)
- HYD — PROPOSED HYDRANT C/W VALVE & LEAD
- PROPOSED CAP
- Ⓐ — PIPE CROSSING LOCATION
- PROPOSED ROOF DRAIN
- PROPOSED BARRIER CURB
- DC — PROPOSED DEPRESSED CURB
- TACTILE WALKING SURFACE INDICATOR (TWSI)
- CURB CUTOUT
- PROPOSED LIGHT STANDARD
- PROPOSED SIAMESE CONNECTION
- GM — PROPOSED GAS METER LOCATION
- HM — PROPOSED HYDRO METER LOCATION
- PROPOSED TRANSFORMER PAD C/W BOLLARDS
- CLAY DIKE AS PER CITY OF OTTAWA DETAIL S8
- SILT FENCE AS PER OPSD 219.110
- EMERGENCY OVERLAND FLOW ROUTE
- STRAW BALES AS PER OPSD 219.100
- MM — CONSTRUCTION ACCESS MUD MAT
- ICD — PROPOSED INLET CONTROL DEVICE
- 1:5 YR / 1:100 YR — APPROXIMATE PONDING LIMITS
- STORM DRAINAGE BOUNDARY
- 0.637 / A-1 / 0.36 — AREA (ha) / SUB-CATCHMENT AREA ID / 1:5 YR POST-DEV. RUNOFF COEFFICIENT
- +102.52 — *EXISTING ELEVATION*
- *EXISTING STORM MANHOLE AND SEWER*
- *EXISTING SANITARY MANHOLE AND SEWER*
- *EXISTING WATERMAIN*
- EX. WMH — *EXISTING WATER MANHOLE*
- VVB — *EXISTING VALVE AND VALE BOX*
- *EXISTING FIRE HYDRANT*
- EX.CB — *EXISTING CATCHBASIN*
- T/G — *EXISTING TOP OF GRATE*
- EX UP — *EXISTING UTILITY POLE C/W GUY WIRES*
- LS — *EXISTING LIGHT STANDARD*
- TSL — *EXISTING TRAFFIC STREET LIGHT*
- x — *EXISTING FENCE*
- G — *EXISTING UNDERGROUND GASMAIN*
- UH — *EXISTING UNDERGROUND HYDRO*
- UB — *EXISTING UNDERGROUND BELL CABLE*
- B — *EXISTING BELL PEDESTAL*
- *EXISTING TREES / SHRUBS*
- HEAVY DUTY ASPHALT/FIRE ROUTE
- GEO-GRID SLOPE STABILIZATION PER GEOTECHNICAL RECOMMENDATIONS
- ROADCUT REINSTATEMENT
- WATERMAIN INSULATION AREA AS PER CITY OF OTTAWA DETAIL W22

GENERAL NOTES:

1. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
2. DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING.
3. OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
4. BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR $5,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED.
5. COMPLETE ALL WORKS IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS USING THE CURRENT GUIDELINES, BYLAWS AND STANDARDS INCLUDING MATERIALS OF CONSTRUCTION, DISINFECTION AND ALL RELEVANT REFERENCES TO OPSS, OPSD & AWWA GUIDELINES - ALL CURRENT VERSIONS AND 'AS AMENDED'.
6. RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER.
7. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
8. ALL ELEVATIONS ARE GEODETIC.
9. REFER TO THE GEOTECHNICAL INVESTIGATION REPORT (NO. PG7725-1, REV. 1, DATED NOVEMBER 24, 2025) PREPARED BY PATERSON GROUP INC., FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.
10. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACED AREAS AND DIMENSIONS.
11. REFER TO THE 'SITE SERVICING AND STORMWATER MANAGEMENT REPORT' (R-2026-009) PREPARED BY NOVATECH.
12. SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
13. PROVIDE LINE / PARKING LOT PAINTING AS REQUIRED BY ARCHITECT.
14. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A SERVICING PLAN OF 125050-GP1 AND 125050-GP2 INDICATING ALL SERVICING AS-BUILT INFORMATION SHOWN ON THE SERVICING PLANS. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, T/WM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.

SEWER NOTES:

1. SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS - ALL CURRENT VERSIONS AND 'AS AMENDED'.
2. SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
CATCHBASIN (600x600mm)	705.010	OPSD
STORM / SANITARY MANHOLE (1200mmØ)	701.010	OPSD
STORM / CATCHBASIN MANHOLE (1500mmØ)	701.011	OPSD
STORM / CATCHBASIN MANHOLE (2400mmØ)	701.013	OPSD
CB, FRAME & COVER	400.020	OPSD
STORM / SANITARY MH FRAME & COVER	401.010	OPSD
WATERTIGHT MH FRAME AND COVER	401.030	OPSD
SAFETY PLATFORMS FOR CIRCULAR MHs	404.020	OPSD
PATIO DRAIN	FD-460-F	WATTS
SEWER TRENCH	S6	CITY OF OTTAWA
SANITARY / STORM SEWER / CB LEAD	PVC DR 35	
STORM SUPER-PIPE (600mm DIAMETER AND OVER)	CONCRETE 65-D	

3. THE SANITARY SERVICE LATERALS SHALL BE EQUIPPED WITH A BACKFLOW PREVENTER WITHIN THE BUILDING FOOTPRINT AS PER CITY OF OTTAWA STANDARD DETAILS S14.1 OR S14.2. REFER TO MECHANICAL PLANS FOR DETAILS.
4. THE STORM SERVICE LATERALS SHALL BE EQUIPPED WITH A BACKFLOW PREVENTER WITHIN THE BUILDING FOOTPRINT AS PER CITY OF OTTAWA STANDARD DETAILS S14. REFER TO MECHANICAL PLANS FOR DETAILS.
5. INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.8m COVER WITH HI-40 INSULATION PER INSULATION DETAIL FOR SHALLOW SEWERS. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
6. SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.
7. PIPE BEDDING, COVER AND BACKFILL ARE TO BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. THE USE OF CLEAR CRUSHED STONE AS A BEDDING LAYER SHALL NOT BE PERMITTED.
8. FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO MANHOLES (FOR EXAMPLE KOR-N-SEAL, PSX: POSITIVE SEAL AND DURASEAL). THE CONCRETE CRADLE FOR THE PIPE CAN BE ELIMINATED.
9. THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16, 410.07.16.04 AND 407.07.24. DYE TESTING IS TO BE COMPLETED ON ALL SANITARY SERVICES TO CONFIRM PROPER CONNECTION TO THE SANITARY SEWER MAIN. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.
10. TYPICAL STORM MANHOLES AND CATCHBASIN MANHOLES ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED. ALL CATCHBASINS ARE TO HAVE 600mm SUMPS UNLESS OTHERWISE INDICATED.
11. ALL CATCHBASINS, MANHOLES AND/OR CATCHBASIN MANHOLES THAT ARE TO HAVE ICD'S INSTALLED WITHIN THEM ARE TO HAVE 600mm SUMPS.
12. ALL WEEPING TILE CONNECTIONS TO BE MADE TO THE PROPOSED STORM SEWER SYSTEM DOWNSTREAM OF ANY INLET CONTROL DEVICES.
13. THE CONTRACTOR IS TO TELEVISE (CCTV) ALL PROPOSED SEWERS, 200mmØ OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH, CLEAN AND RE-TELEVISE (CCTV) ALL SEWERS & APPURTENANCES. PROVIDE A COPY OF ALL CCTV INSPECTION REPORTS TO THE ENGINEER FOR REVIEW.

GRADING NOTES:

1. ALL TOPSOIL, ORGANIC OR DELETERIOUS MATERIAL MUST BE ENTIRELY REMOVED FROM BENEATH THE PROPOSED PAVED AREAS AS DIRECTED BY THE SITE ENGINEER OR GEOTECHNICAL ENGINEER.
2. EXPOSED SUBGRADES IN PROPOSED PAVED AREAS SHOULD BE PROOF ROLLED WITH A LARGE STEEL DRUM ROLLER AND INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF GRANULARS.
3. ANY SOFT AREAS EVIDENT FROM THE PROOF ROLLING SHOULD BE SUB-EXCAVATED AND REPLACED WITH SUITABLE MATERIAL THAT IS FROST COMPATIBLE WITH THE EXISTING SOILS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
4. THE GRANULAR BASE SHOULD BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE. ANY ADDITIONAL GRANULAR FILL USED BELOW THE PROPOSED PAVEMENT SHOULD BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE.
5. MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
6. MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED.
7. ALL GRADES BY CURBS ARE EDGE OF PAVEMENT GRADES UNLESS OTHERWISE INDICATED.
8. ALL CURBS SHALL BE BARRIER CURB (150mm) UNLESS OTHERWISE NOTED AND CONSTRUCTED AS PER CITY OF OTTAWA STANDARDS (SC1.1).
9. REFER TO LANDSCAPE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS.
10. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GRADING PLAN INDICATING AS-BUILT ELEVATIONS OF ALL DESIGN GRADES SHOWN ON PLANS 125050-GR1 AND 125050-GR2.

PAVEMENT STRUCTURES:

LIGHT DUTY PAVEMENT
50mm HL-3 or SUPERPAVE 12.5
150mm GRANULAR "A"
300mm GRANULAR "B" TYPE II
ASPHALT GRADE PG 58-34 - TRAFFIC LEVEL 'B'
*INSTALLED PER GEOTECHNICAL REPORT

HEAVY DUTY PAVEMENT
40mm HL-3 or SUPERPAVE 12.5
50mm HL-8 or SUPERPAVE 19.0
150mm GRANULAR "A"
400mm GRANULAR "B" TYPE II
ASPHALT GRADE PG 58-34 - TRAFFIC LEVEL 'B'
*INSTALLED PER GEOTECHNICAL REPORT

HEAVY DUTY CONCRETE
150mm REINFORCED CONCRETE
150mm GRANULAR "A"
450mm GRANULAR "B" TYPE II
100mm HL-40 RIGID INSULATION
INSTALLED PER CITY DETAIL SC23

HEAVY DUTY MAINTENANCE ACCESS
100mm GEOGRID
150mm GRANULAR "A"
450mm GRANULAR "B" TYPE II

HEAVY DUTY PAVEMENT - ROADWAY RE-INSTATEMENT
MATCH EXISTING GRANULAR STRUCTURE OF ROADWAY IN TRENCHES
MATCH EXISTING ASPHALT THICKNESSES IN TRENCHES
NEW ASPHALT GRADE: PG 58-34
PROVIDE MUNICIPAL ROADWAY ASPHALT OVERLAY AS SHOWN, PER CITY STANDARD DETAIL R10. REFER TO AMENDED ROAD ACTIVITY BY-LAW 2003-445.

BENCHMARK INFO:

OLS JOB BENCHMARK No. 1 ON THE TOP OF SPINDLE OF THE EXISTING MUNICIPAL FIRE HYDRANT LOCATED NEAR THE MID-BLOCK OF THE SUBJECT SUTE IN THE EAST BOULEVARD OF STRANDHERD DRIVE HAVING A GEODETIC ELEVATION OF 96.43m. (JOB BENCHMARK No. 2 AT THE SOUTH-EAST CORNER OF SYSTEMHOUSE DRIVE AND THE EXISTING ENTRANCE TO THE CRU DEVELOPMENT TO THE NORTH IS ALSO SHOWN ON THE OLS SURVEYOR'S PLAN Ref. No. 25240-25 Block 3 PL4M-1538 O F.

ALL ELEVATIONS ARE REFERRED TO THE CGVD28 GEODETIC DATUM. BEARINGS ARE GRID, DERIVED FROM CONTROL MONUMENT No. 00820118015 HAVING A GEODETIC ELEVATION OF 110.418m.

THE EXISTING GRADES SHOWN ON THE PLANS ARE TAKEN DIRECTLY FROM TOPOGRAPHICAL SURVEY PLAN (Ref. No. 25240-25 Block 3 PL4M-1538 O F), PREPARED BY ANNIS, O'SULLIVAN, VOLLEBEKK SIGNED AND DATED JUNE 22, 2023.

SURROUNDING BACKGROUND TOPO INFORMATION BEYOND THE LIMITS OF THE SITE SURVEY ARE SHOWN FROM CITY OF OTTAWA 1:1000 MAPPING INFORMATION FOR CONTEXT ONLY.

EROSION AND SEDIMENT CONTROL NOTES :

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 MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.

1. ALL EROSION AND SEDIMENT CONTROLS ARE TO BE INSTALLED TO THE SATISFACTION OF THE ENGINEER AND THE CITY OF OTTAWA. THEY ARE TO BE APPROPRIATE TO THE SITE CONDITIONS, PRIOR TO UNDERTAKING ANY SITE ALTERATIONS (FILLING, GRADING, REMOVAL OF VEGETATION, ETC.) AND DURING ALL PHASES OF SITE PREPARATION AND CONSTRUCTION. THESE PRACTICES ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE CURRENT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL AND SHOULD INCLUDE AS A MINIMUM THOSE MEASURES INDICATED ON THE PLAN.
2. EROSION AND SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED DURING CONSTRUCTION IN ACCORDANCE WITH THE "GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES" (GOVERNMENT OF ONTARIO, MAY 1987). THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEETING ALL REGULATORY AGENCY REQUIREMENTS.
3. TO PREVENT SURFACE EROSION FROM ENTERING ANY STORM SEWER SYSTEM DURING CONSTRUCTION, FILTER BAGS WILL BE PLACED UNDER GRATES OF NEARBY CATCHBASINS AND STRUCTURES. A LIGHT DUTY SILT FENCE BARRIER WILL ALSO BE INSTALLED AROUND THE CONSTRUCTION AREA (WHERE APPLICABLE). THESE CONTROL MEASURES WILL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
4. TO LIMIT EROSION: MINIMIZE THE AMOUNT OF EXPOSED SOILS AT ANY GIVEN TIME, RE-VEGETATE EXPOSED AREAS AND SLOPES AS SOON AS POSSIBLE AND PROTECT EXPOSED SLOPES WITH NATURAL OR SYNTHETIC MULCHES.
5. FOR MATERIAL STOCKPILING: MINIMIZE THE AMOUNT OF EXPOSED MATERIALS AT ANY GIVEN TIME; APPLY TEMPORARY SEEDING, TARPS, COMPACTION AND/OR SURFACE ROUGHENING AS REQUIRED TO STABILIZE STOCKPILED MATERIALS THAT WILL NOT BE USED WITHIN 14 DAYS.
6. THE SEDIMENT CONTROL MEASURES SHALL ONLY BE REMOVED WHEN, IN THE OPINION OF THE ENGINEER, THE MEASURES ARE NO LONGER REQUIRED. NO CONTROL MEASURES MAY BE PERMANENTLY REMOVED WITHOUT PRIOR AUTHORIZATION FROM THE ENGINEER.
7. THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ENGINEER ANY ACCIDENTAL DISCHARGES OF SEDIMENT MATERIAL INTO ANY STORM SEWER SYSTEM. APPROPRIATE RESPONSE MEASURES, INCLUDING ANY REPAIRS TO EXISTING CONTROL MEASURES OR THE IMPLEMENTATION OF ADDITIONAL CONTROL MEASURES, SHALL BE CARRIED OUT BY THE CONTRACTOR WITHOUT DELAY.
8. 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 MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
9. ROADWAYS ARE TO BE SWEPT AS REQUIRED OR AS DIRECTED BY THE ENGINEER AND/OR THE MUNICIPALITY.
10. THE CONTRACTOR SHALL ENSURE PROPER DUST CONTROL IS PROVIDED WITH THE APPLICATION OF WATER (AND IF REQUIRED, CALCIUM CHLORIDE) DURING DRY PERIODS. MONITOR DUST LEVELS DURING SITE PREPARATION/EXCAVATION, AND CONSTRUCTION ACTIVITIES, AND WHEN DUST LEVELS BECOME VISUALLY APPARENT SPRAY WATER TO MINIMIZE THE RELEASE OF DUST FROM GRAVEL, PAVED AREAS AND EXPOSED SOILS. USE CHEMICAL DUST SUPPRESSANTS ONLY WHERE NECESSARY ON PROBLEM AREAS.

WATERMAIN NOTES:

1. SUPPLY AND CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS - ALL CURRENT VERSIONS AND 'AS AMENDED'. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMAINS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN BY CITY OF OTTAWA FORCES. CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE CITY OF OTTAWA FORCES.
2. SPECIFICATIONS:

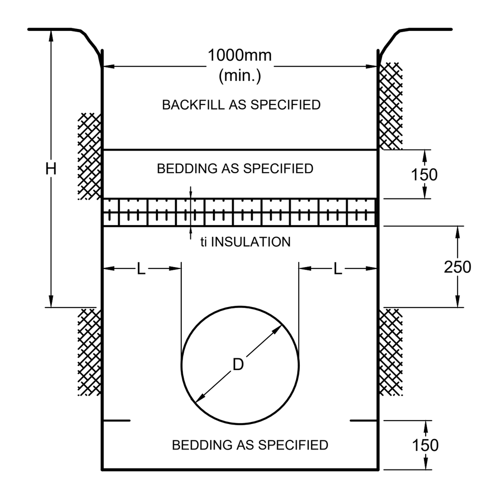
ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
HYDRANT INSTALLATION	W19	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
THERMAL INSULATION AT OPEN STRUCTURES	W23	CITY OF OTTAWA
VALVE BOX ASSEMBLY	W24	CITY OF OTTAWA
WATERMAIN CROSSING BELOW SEWER	W25	CITY OF OTTAWA
WATERMAIN CROSSING OVER SEWER	W25.2	CITY OF OTTAWA
CATHODIC PROTECTION FOR PVC WATERMAIN	W40	CITY OF OTTAWA
ANODE INSTALLATION FOR PVC WATERMAIN	W42	CITY OF OTTAWA
WATERMAIN MATERIAL	PVC DR 18	

3. WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.
4. PROVIDE MINIMUM 0.5m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS, WHERE POSSIBLE UNLESS OTHERWISE INDICATED.
5. WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.

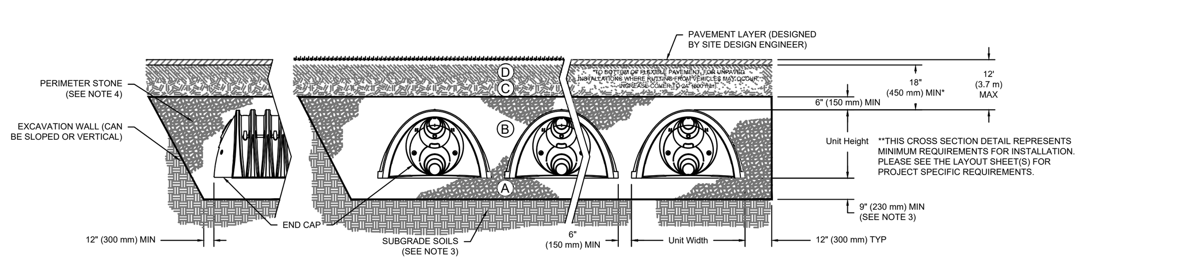
INSULATION NOTES:
1. FOR SHALLOW STORM AND SANITARY SEWER PIPES INSTALL HI-40 RIGID INSULATION PER THE GEOTECHNICAL RECOMMENDATIONS AND DETAILS AS SPECIFIED IN MEMORANDUM PG6514-MEMO.03

ti = THICKNESS OF INSULATION (mm)
H = DEPTH OF COVER
WIDTH OF INSULATION = 2 x (L) + D (mm)
D = O.D. OF PIPE (mm)

COVER (H) (mm)	INSULATION THICKNESS (ti) (mm)	INSULATION WIDTH (L) (mm)
600-900	125	1200
900-1200	100	1200
1200-1500	75	900
1500-1800	50	600



INSULATION DETAIL FOR SHALLOW SEWERS
NOT TO SCALE



TYPICAL STORMTECH SC-800 CHAMBER SYSTEM
N.T.S.

PROPOSED 25mmØ WATER SERVICE TABLE: REMOTE GARDEN CENTRE

7+000	96.77	94.37	25mmØ SERVICE CAP (1.0m FROM FOUNDATION WALL)
7+008.8	96.52	94.12	LONG RADIUS HORIZONTAL BEND ON PEX SERVICE TUBING
7+025	96.33	93.93	- - -
7+029.6	96.28	94.50 **	CROSS ABOVE 750mmØ STM [Obv=94.08m] (±0.4m CLEARANCE)
7+049.1	96.12	93.72	LONG RADIUS HORIZONTAL BEND ON PEX SERVICE TUBING
7+051.7	96.07	93.65 **	CROSS BELOW 300mmØ STM [Inv=93.95m] (±0.3m CLEARANCE)
7+056.3	96.20	93.80	25mmØ SERVICE POST & SHUT-OFF VALVE
7+058.2	96.40	93.85	DRY FIRE HYDRANT RISER FOR SEASONAL GARDEN CENTRE

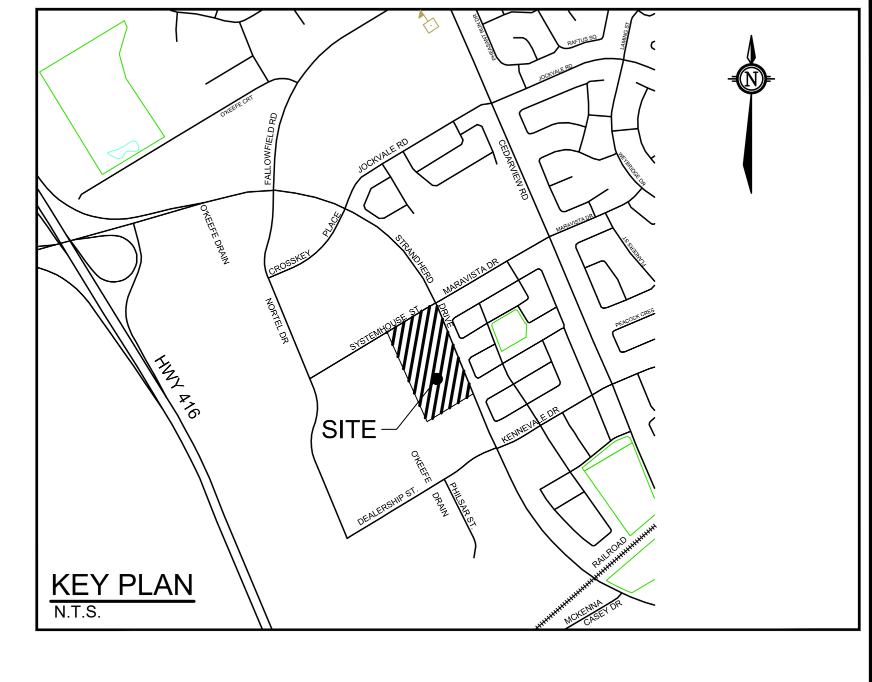
** PROVIDE THERMAL INSULATION AS PER CITY OF OTTAWA DETAILS W22 IN SHALLOW TRENCHES WHERE COVER IS LESS THAN 2.4m AND/OR W23 ADJACENT TO OPEN STRUCTURES.
*** PIPE CROSSINGS WITH WATERMAINS ARE TO BE IN ACCORDANCE WITH CITY STANDARDS W25 AND W25.2 TO AVOID CONFLICTS, WHERE POSSIBLE.

ALL CRU BUILDING ROOFS ON-SITE ARE TO BE CONTROLLED AND HAVE A WHITE SURFACE FINISH FOR TEMPERATURE MITIGATION. CONTROLLED FLOW ROOF DRAINS FOR THE PROPOSED BUILDINGS ARE TO BE WATTS 'ADJUSTABLE ACCUTROL' ROOF DRAINS. REFER TO THE 'DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT' (R-2026-009) PREPARED BY NOVATECH FOR DRAINAGE AREA IDENTIFICATION AND STORMWATER MANAGEMENT DETAILS.

PROPOSED 250mmØ / 200mmØ WATERMAIN TABLES

STATION	SURFACE ELEVATION	T/WM ELEVATION	COMMENTS
1+000	96.58	94.08 **	200 x 200 TEE (0+043.9)
1+003.0	96.60	94.10 **	200mmØ VALVE & VALVE BOX
1+008.8	96.53	94.10 **	11.25° HORIZONTAL BEND
1+023.9	96.51	93.60 **	CROSS BELOW 450mmØ STM [Inv=94.09m] (±0.5m CLEARANCE)
1+025	96.51	93.60 **	- - -
1+039.5	96.52	93.75 **	CROSS BELOW 300mmØ STM [Inv=94.24m] (±0.5m CLEARANCE)
1+050	96.50	94.10	- - -
1+069.5	96.49	93.80 **	CROSS BELOW 300mmØ STM [Inv=94.28m] (±0.5m CLEARANCE)
1+074.4	96.49	94.09	45° HORIZONTAL BEND
1+078.6	96.48	94.08	45° HORIZONTAL BEND
1+091.6	96.42	94.02	200 x 150 FIRE HYDRANT TEE (HYD No. 06)
1+101.0	96.39	94.18 **	CROSS ABOVE 200mmØ SAN [Obv=93.68m] (±0.3m CLEARANCE)
1+102.5	96.39	94.14 **	CROSS BELOW 300mmØ STM [Inv=94.44m] (±0.3m CLEARANCE)
1+115.1	96.38	93.98	200 x 150 SERVICE TEE (CRU 7)
1+118.2	96.37	93.97	CROSS BELOW 300mmØ STM [Inv=94.27m] (±0.3m CLEARANCE)
1+125	96.25	93.85	- - -
1+142.9	96.28	93.88	CROSS BELOW 300mmØ STM [Inv=94.42m] (±0.5m CLEARANCE)
1+150	96.30	93.90	- - -
1+175	96.30	93.90	- - -
1+185.6	96.28	93.88	200mmØ VALVE & VALVE BOX
1+188.6	96.28	93.88	200 x 150 FIRE HYDRANT TEE (HYD No. 05)
1+192.4	96.30	93.80 **	200 x 150 SERVICE TEE (CRU 8)
1+193.4	96.30	93.80	CROSS BELOW 300mmØ STM [Inv=94.30m] (±0.5m CLEARANCE)
1+194.4	96.31	93.81	CROSS ABOVE 200mmØ SAN [Obv=93.09m] (±0.7m CLEARANCE)
1+200	96.34	93.84 **	- - -
1+207.9	96.31	93.91	200 x 150 TEE (5+000)
1+223.4	96.23	93.86 **	CROSS ABOVE 200mmØ SAN [Obv=93.26m] (±0.4m CLEARANCE)
1+224.4	96.23	93.83	CROSS BELOW 300mmØ STM [Inv=94.30m] (±0.5m CLEARANCE)
1+230.4	96.23	93.83	22.5° HORIZONTAL BEND
1+251.0	96.22	93.82	22.5° HORIZONTAL BEND
1+257.4	96.18	93.78	200mmØ VALVE & VALVE BOX
1+260.4	96.17	93.77	200 x 200 x 200 TEE (0+355.9)
2+000	96.30	93.90	200 x 150 SERVICE TEE (0+070.2) for CRUs 3 & 4
2+003.0	96.36	93.96	CROSS ABOVE 250mmØ SAN [Obv=91.71m] (±2.1m CLEARANCE)
2+005.5	96.42	94.02	150mmØ VALVE & VALVE BOX
2+025	96.39	93.99	- - -
2+042.3	96.48	94.08	45° HORIZONTAL BEND
2+045.3	96.52	94.12	45° HORIZONTAL BEND
2+050	96.65	94.25	- - -
2+063.8	96.68	94.28	150 x 150 SERVICE TEE for CRU 4
2+064.8	96.69	94.29	CROSS ABOVE 200mmØ SAN [Obv=93.77m] (±0.4m CLEARANCE)
2+072.5	96.67	94.27	150mmØ VALVE & VALVE BOX
2+075	96.62	94.22	- - -
2+085.4	96.66	94.26	22.5° HORIZONTAL BEND
2+089.3	96.67	94.27	22.5° HORIZONTAL BEND
2+100	96.67	94.27	- - -
2+112.9	96.59	94.20	45° HORIZONTAL BEND
2+114.3	96.63	94.20	45° HORIZONTAL BEND
2+115.0	96.65	94.20	150mmØ CAP for CRU 3 (1.5m FROM FOUNDATION WALL)
3+000	96.42	93.65 **	200 x 200 SERVICE TEE (0+220.7) for CRUs 1 & 2
3+001.5	96.43	93.68 **	200mmØ VALVE & VALVE BOX
3+003.0	96.44	93.70 **	CROSS ABOVE 250mmØ SAN [Obv=92.47m] (±1.0m CLEARANCE)
3+014.6	96.49	93.90 **	11.25° HORIZONTAL BEND
3+025	96.45	94.05	- - -
3+044.3	96.42	94.02	CROSS ABOVE 200mmØ SAN [Obv=92.99m] (±1.0m CLEARANCE)
3+045.3	96.42	94.02	200 x 150 SERVICE TEE for CRU 2
3+046.3	96.43	94.03	CROSS BELOW 300mmØ STM [Inv=94.43m] (±0.4m CLEARANCE)
3+057.2	96.30	93.90	45° HORIZONTAL BEND
3+060.0	96.26	93.80 **	45° HORIZONTAL BEND
3+061.0	96.26	93.75 **	CROSS ABOVE 200mmØ SAN [Obv=92.78m] (±0.9m CLEARANCE)
3+062.5	96.29	93.62 **	CROSS BELOW 450mmØ STM [Inv=93.92m] (±0.3m CLEARANCE)
3+087.5	96.50	94.00 **	200mmØ VALVE & VALVE BOX
3+091.9	96.46	94.00 **	45° HORIZONTAL BEND
3+093.4	96.41	94.00	45° HORIZONTAL BEND
3+093.9	96.41	94.00	200mmØ CAP for CRU 1 (1.5m FROM FOUNDATION WALL)
4+000	96.38	93.98	200 x 150 SERVICE TEE (1+115.1) for CRU 7
4+001.5	96.43	94.03	150mmØ VALVE & VALVE BOX
4+025	96.67	94.20 **	- - -
4+032.0	96.63	94.20 **	45° HORIZONTAL BEND
4+034.1	96.55	94.20 **	45° HORIZONTAL BEND
4+044.2	96.60	94.20	45° HORIZONTAL BEND
4+046.3	96.75	94.20 **	45° HORIZONTAL BEND
4+047.0	96.78	94.20	150mmØ CRU 7 SERVICE CAP (1.5m FROM FOUNDATION WALL)
5+000	96.31	93.91	200 x 150 SERVICE TEE (1+207.9) for CRU 9
5+001.5	96.34	93.94	150mmØ VALVE & VALVE BOX
5+025	96.33	93.95 **	- - -
5+031.0	96.45	94.05	45° HORIZONTAL BEND
5+034.5	96.30	94.04 **	45° HORIZONTAL BEND
5+040.9	96.42	94.02	45° HORIZONTAL BEND
5+043.0	96.56	94.00	45° HORIZONTAL BEND
5+043.8	96.58	94.00	150mmØ CRU 9 SERVICE CAP (1.5m FROM FOUNDATION WALL)
6+000	96.85	94.45	200 x 150 SERVICE TEE (0+011.2) for CRU 6
6+001.0	96.87	94.47	150mmØ VALVE & VALVE BOX
6+025	96.98	94.58	- - -
6+035.7	96.95	94.55	45° HORIZONTAL BEND
6+036.6	96.92	94.52	45° HORIZONTAL BEND
6+038.5	96.87	94.47	150mmØ CRU 6 SERVICE CAP (1.5m FROM FOUNDATION WALL)

* CONNECTIONS TO EXISTING 250mmØ / 200mmØ WM STUBS. EXACT ELEVATIONS TO BE FIELD DETERMINED.
** PROVIDE THERMAL INSULATION AS PER CITY OF OTTAWA DETAILS W22 IN SHALLOW TRENCHES WHERE COVER IS LESS THAN 2.4m AND/OR W23 ADJACENT TO OPEN STRUCTURES.
*** PIPE CROSSINGS WITH WATERMAINS ARE TO BE IN ACCORDANCE WITH CITY STANDARDS W25 AND W25.2 TO AVOID CONFLICTS, WHERE POSSIBLE.



KEY PLAN
N.T.S.

PROPOSED 250mmØ / 200mmØ WATERMAIN TABLES

STATION	SURFACE ELEVATION	T/WM ELEVATION	COMMENTS
0+000	96.89	94.70 *	CONNECTION TO EXISTING 250mmØ /w 250 x 200 TEE
0+006.1	96.87	94.47	CROSS BELOW EX. HYDRO DUCT (MIN. ±0.5m CLEARANCE)
0+006.4	96.88	94.47	CROSS BELOW EX. ROGERS LINE (MIN. ±0.5m CLEARANCE)
0+009.0	96.86	94.46	250mmØ VALVE & VALVE BOX @ PROPERTY LINE
0+011.2	96.85	94.45	200 x 150 SERVICE TEE (CRU 6)
0+012.2	96.83	94.43	CROSS ABOVE 200mmØ SAN [Obv=92.62m] (±1.6m CLEARANCE)
0+025	96.76	94.36	- - -
0+038.1	96.68	94.03 **	200 x 150 SERVICE TEE (CRU 5)
0+040.4	96.64	93.94 **	CROSS BELOW 300mmØ STM [Inv=94.44m] (±0.5m CLEARANCE)
0+043.9	96.58	94.08 **	200 x 200 TEE (1+000)
0+046.9	96.54	94.14	200mmØ VALVE & VALVE BOX
0+050	96.52	94.12	- - -
0+056.4	96.45	94.05	200 x 150 FIRE HYDRANT TEE (HYD No. 01)
0+062.7	96.38	93.98	CROSS BELOW 300mmØ STM [Inv=94.51m] (±0.5m CLEARANCE)
0+068.4	96.31	93.91	CROSS ABOVE 200mmØ SAN [Obv=92.82m] (±0.9xm CLEARANCE)
0+070.2	96.30	93.90	200 x 150 TEE (2+000)
0+073.2	96.30	93.90	200mmØ VALVE & VALVE BOX
0+095.7	96.35	93.95	CROSS BELOW 300mmØ STM [Inv=94.45m] (±0.5m CLEARANCE)
0+100	96.38	93.95 **	- - -
0+125	96.37	93.95 **	- - -
0+150	96.28	93.94 **	- - -
0+158.8	96.33	93.93	200 x 150 FIRE HYDRANT TEE (HYD No. 02)
0+168.6	96.39	93.80 **	CROSS ABOVE 200mmØ SAN [Obv=92.24m] (±1.7m CLEARANCE)
0+170.1	96.39	93.75 **	CROSS BELOW 300mmØ STM [Inv=94.23m] (±0.5m CLEARANCE)
0+175	96.39	93.85 **	- - -
0+200	96.39	93.99	- - -
0+217.7	96.42	93.80 **	200mmØ VALVE & VALVE BOX
0+220.7	96.42	93.65 **	200 x 200 TEE (3+000)
0+225	96.42	93.40 **	- - -
0+228.5	96.42	93.26 **	CROSS BELOW 450mmØ STM [Inv=93.76m] (±0.5m CLEARANCE)
0+250	96.39	93.99	- - -
0+263.8	96.43	94.03	45° HORIZONTAL BEND
0+265.2	96.42	94.02	200 x 150 FIRE HYDRANT TEE (HYD No. 03)
0+266.7	96.41	94.01	45° HORIZONTAL BEND
0+269.7	96.40	94.00	200mmØ VALVE & VALVE BOX
0+275	96.38	93.98	- - -
0+278.2	96.37	93.97	22.5° VERTICAL BEND
0+280.2	96.36	94.83 **	22.5° VERTICAL BEND
0+281.6	96.36	94.83 **	CROSS ABOVE 750mmØ STM [Obv=94.13m] (±0.5m CLEARANCE)
0+283.0	96.36	94.82 **	22.5° VERTICAL BEND
0+285.1	96.35	93.95	22.5° VERTICAL BEND
0+300	96.31	93.91	- - -
0+315.5	96.34	93.94	45° HORIZONTAL BEND
0+318.3	96.36	93.96	45° HORIZONTAL BEND
0+323.4	96.34	93.94	22.5° HORIZONTAL BEND
0+329.4	96.26	93.86	200 x 150 FIRE HYDRANT TEE (HYD No. 04)
0+334.2	96.20	93.80	CROSS BELOW 300mmØ STM [Inv=94.29m] (±0.5m CLEARANCE)
0+338.9	96.20	93.80	22.5° HORIZONTAL BEND
0+350	96.17	93.77	- - -
0+355.9	96.17	93.77	200 x 200 x 200 TEE (1+260.4)
0+358.9	96.21	93.77 **	200mmØ VALVE & VALVE BOX
0+375	96.10	93.70	- - -
0+380.1	96.03	93.63	200 x 150 SERVICE TEE (CRU 10)
0+388.1	95.95	93.55	45° HORIZONTAL BEND
0+398.0	96.04	93.30 **	45° HORIZONTAL BEND
0+400	96.51	93.50 **	- - -
0+401.3	96.52	93.15 **	45° HORIZONTAL BEND
0+403.4	96.49	93.05 **	45° HORIZONTAL BEND
0+404.4	96.37	93.01 **	CONNECTION TO EXISTING 200mmØ WM STUB

* CONNECTIONS TO EXISTING 250mmØ / 200mmØ WM STUBS. EXACT ELEVATIONS TO BE FIELD DETERMINED.
** PROVIDE THERMAL INSULATION AS PER CITY OF OTTAWA DETAILS W22 IN SHALLOW TRENCHES WHERE COVER IS LESS THAN 2.4m AND/OR W23 ADJACENT TO OPEN STRUCTURES.
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INLET CONTROL DEVICE TABLE

STRUCTURE I.D.'s	ICD TYPE (VORTEX)	DIAMETER OF OUTLET PIPE	OUTLET STRUCTURE	STRUCTURE SUMP DEPTH
STM MH 272 & 440 CBMH 252	IPEX TEMPEST LMF MODEL 50	300mmØ PVC DR35	1220mmØ CONCRETE	600mm
STM MH 244, 264, 288 & 428 CBMH 206, 214, 222, 228 & 408	IPEX TEMPEST LMF MODEL 40	300mmØ PVC DR35	1220mmØ CONCRETE	600mm

NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

THIS PLAN IS TO BE READ IN CONJUNCTION WITH CIVIL PLANS 125050-GP1&GP2 AND PLANS 125050-GR1&GR2

ALL PROJECT NOTES, DETAILS AND SPECIFICATIONS ARE TO MEET THE MOST CURRENT AND AMENDED VERSIONS OF THE CITY OF OTTAWA AND PROVINCIAL STANDARDS

Choice Properties REIT

No.	REVISION	DATE	BY
1.	ISSUED FOR SITE PLAN APPROVAL	FEB 2/26	DDB

SCALE: AS INDICATED
DESIGN: SM / DDB
CHECKED: BM
DRAWN: SM
CHECKED: BM
APPROVED: DDB

FOR REVIEW ONLY

LICENSED PROFESSIONAL ENGINEER — D. D. BLAIR — 100122737 — Feb 2 2026 — PROVINCE OF ONTARIO

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Website www.novatech-eng.com

LOCATION
CITY of OTTAWA
4175 STRANDHERD RETAIL - CHOICE REIT

DRAWING NAME
NOTES, DETAILS AND TABLES

PROJECT No. 125050
REV: REV # 1
DRAWING No. 125050-NDT1

D07-12-25-____ # ____

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