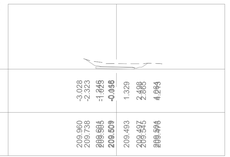
CHAINAGE 60

H.SCALE 1:200

V.SCALE 1:200
DATUM = 209

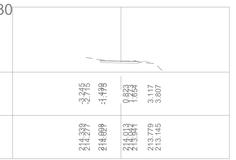


OFFSET	-3.028	-1.752	-1.648	-0.946	1.329	2.898	4.064		
ELEVATION	209.950	209.308	209.504	209.509	209.463	209.497	209.904		

CHAINAGE 130

H.SCALE 1:200

V.SCALE 1:200
DATUM = 213

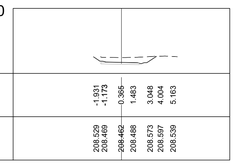


OFFSET	-3.715	-1.479	0.823	1.824	3.817				
ELEVATION	214.379	214.869	214.013	213.941	213.729	213.145			

CHAINAGE 50

H.SCALE 1:200

V.SCALE 1:200
DATUM = 207

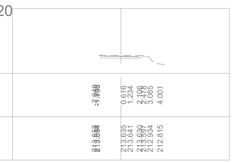


OFFSET	-1.931	-1.173	0.765	1.483	3.048	4.004	5.163		
ELEVATION	208.529	208.469	208.462	208.488	208.573	208.597	208.539		

CHAINAGE 120

H.SCALE 1:200

V.SCALE 1:200
DATUM = 212

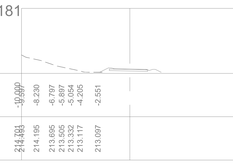


OFFSET	-1.948	-1.214	0.614	1.205	2.825	3.795	4.951		
ELEVATION	213.884	213.618	213.621	213.597	213.504	213.514	213.815		

CHAINAGE 181

H.SCALE 1:200

V.SCALE 1:200
DATUM = 213

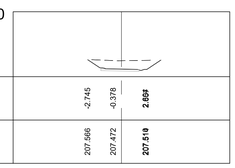


OFFSET	-10.000	-8.230	-5.797	-5.897	-5.304	-4.206	-2.551		
ELEVATION	214.231	214.195	213.695	213.505	213.713	213.117	213.097		

CHAINAGE 40

H.SCALE 1:200

V.SCALE 1:200
DATUM = 206

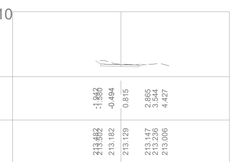


OFFSET	-2.745	-0.378	2.857						
ELEVATION	207.566	207.472	207.510						

CHAINAGE 110

H.SCALE 1:200

V.SCALE 1:200
DATUM = 212

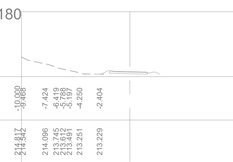


OFFSET	-1.955	-0.464	0.815	2.865	3.544	4.427			
ELEVATION	213.682	213.182	213.129	213.147	213.236	213.006			

CHAINAGE 180

H.SCALE 1:200

V.SCALE 1:200
DATUM = 213

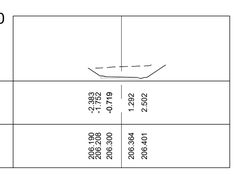


OFFSET	-10.000	-7.424	-5.418	-5.787	-4.250	-2.404			
ELEVATION	214.812	214.095	213.612	213.675	213.251	213.229			

CHAINAGE 30

H.SCALE 1:200

V.SCALE 1:200
DATUM = 205

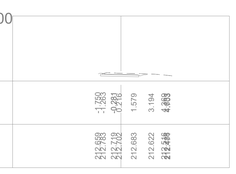


OFFSET	-2.383	-1.752	-0.719	1.292	2.502				
ELEVATION	206.190	206.208	206.300	206.364	206.401				

CHAINAGE 100

H.SCALE 1:200

V.SCALE 1:200
DATUM = 212

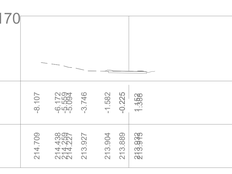


OFFSET	-1.268	-0.281	1.579	3.194	4.363				
ELEVATION	212.508	212.721	212.683	212.622	212.444				

CHAINAGE 170

H.SCALE 1:200

V.SCALE 1:200
DATUM = 213

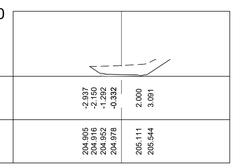


OFFSET	-8.107	-5.172	-3.584	-3.746	-1.952	-0.225	1.568		
ELEVATION	214.709	214.538	214.277	213.927	213.904	213.880	213.976		

CHAINAGE 20

H.SCALE 1:200

V.SCALE 1:200
DATUM = 204

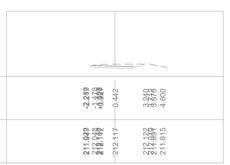


OFFSET	-2.637	-2.259	-1.292	-0.332	2.000	3.691			
ELEVATION	204.805	204.785	204.952	204.978	205.111	205.544			

CHAINAGE 90

H.SCALE 1:200

V.SCALE 1:200
DATUM = 211

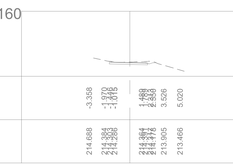


OFFSET	-2.239	-1.998	-1.048	-0.442	2.010	3.200	4.800		
ELEVATION	211.823	212.064	212.108	212.197	212.197	212.022	211.815		

CHAINAGE 160

H.SCALE 1:200

V.SCALE 1:200
DATUM = 213

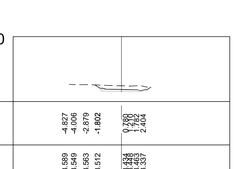


OFFSET	-3.358	-1.770	-1.015	1.888	3.506	5.020			
ELEVATION	214.688	214.348	214.286	214.174	213.905	213.466			

CHAINAGE 10

H.SCALE 1:200

V.SCALE 1:200
DATUM = 202

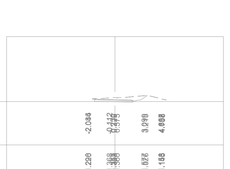


OFFSET	-4.827	-4.006	-2.879	-1.802	1.280	2.000	2.404		
ELEVATION	203.589	203.549	203.563	203.612	203.488	203.468	203.397		

CHAINAGE 80

H.SCALE 1:200

V.SCALE 1:200
DATUM = 211

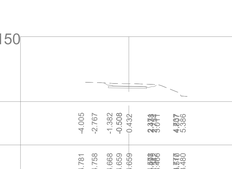


OFFSET	-2.084	-1.847	-0.877	0.112	2.000	3.099	4.688		
ELEVATION	211.269	211.506	211.500	211.488	211.426	211.148			

CHAINAGE 150

H.SCALE 1:200

V.SCALE 1:200
DATUM = 213

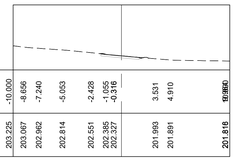


OFFSET	-4.005	-2.767	-1.382	-0.508	0.432	2.373	3.611	4.827	5.386
ELEVATION	214.781	214.758	214.668	214.659	214.659	214.408	214.180	213.678	213.480

CHAINAGE 0

H.SCALE 1:200

V.SCALE 1:200
DATUM = 201

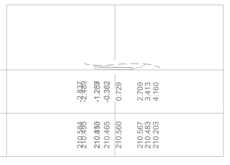


OFFSET	-10.000	-8.456	-7.240	-5.053	-2.428	-1.055	-0.316	3.831	4.910
ELEVATION	203.225	203.067	202.962	202.814	202.551	202.385	202.327	201.993	201.891

CHAINAGE 70

H.SCALE 1:200

V.SCALE 1:200
DATUM = 210

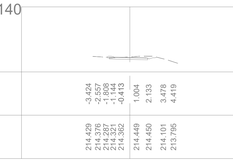


OFFSET	-2.855	-2.617	-1.239	-0.362	0.729	2.709	3.413	4.160	
ELEVATION	210.796	211.034	210.850	210.465	210.560	210.587	210.483	210.838	

CHAINAGE 140

H.SCALE 1:200

V.SCALE 1:200
DATUM = 213



OFFSET	-3.424	-2.627	-1.608	-0.444	-0.413	1.004	2.133	3.478	4.419
ELEVATION	214.429	214.378	214.287	214.452	214.302	214.449	214.450	214.101	213.795

ROAD 1 - Ch. 0 to 181

FOR TENDER

NOTES

GENERAL :

1. PROVE ALL SERVICES PRIOR TO CONSTRUCTION.
2. ALL LEVELS AND DIMENSIONS TO BE VERIFIED ON SITE.
3. ALL SETTING OUT TO BE UNDERTAKEN BY A REGISTERED PROFESSIONAL LAND SURVEYOR.
4. ALL SURVEY AND SETTING OUT DATA PROVIDED IS BASED ON (WGS 84).
5. ALL WORK AREAS TO BE REINSTATED (PREMIX, CONCRETE, ETC.)
6. MUNICIPALITY TO EXECUTE ALL CONNECTIONS INTO MUNICIPAL LINES.
7. UNLESS OTHERWISE AGREED WITH ENGINEER, CONTRACTOR TO SUPPLY ENGINEER WITH RESULTS OF COMPACTION TESTS, AND WHEN APPLICABLE, PERCENTAGE STABILIZATION TESTS ON BACKFILL.
8. ALL WORKS IN ACCORDANCE WITH CITY OF DURBAN SPECIFICATIONS AND SANS 1200
9. THE ENGINEER REQUIRES 24 HOURS NOTICE FOR ALL INSPECTIONS.

MATERIAL COMPLIANCE TESTING :

1. RESULTS OF COMPACTION AND CBR TESTS ON INSITU SUB-BASE MATERIAL AND FILLED SUB-BASE MATERIAL MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE THE UPPER LAYER WORKS ARE IMPORTED TO THE SITE AND PLACED.

FREQUENCY OF TESTS :

1. CBR TESTS 1 PER 300m².
2. COMPACTION TESTS 1 PER 200m² NOTE : COMPACTION TESTS WILL BE REQUIRED FOR EACH OF THE VARYING LAYER THAT IS IMPORTED AND COMPACTED IN PLACE.

RETAINING WALL :

1. ALL LEVELS AND DIMENSIONS TO BE CHECKED ON SITE.
2. ALL CONCRETE WORK IS TO COMPLY WITH SANS 1200G.
3. CONCRETE GRADE :- FOUNDATION 25 / 19
4. ALL FOUNDATION EXCAVATIONS ARE TO BE INSPECTED BY THE ENGINEER PRIOR TO CASTING OF CONCRETE.
5. ALL REINFORCING FIXING IS TO BE INSPECTED BY THE ENGINEER PRIOR TO CASTING OF CONCRETE.
6. SIX CONCRETE CUBES TO BE TAKEN PER BATCH. THREE CUBES TO BE TESTED AT SEVEN DAYS, THE REMAINDER AT TWENTY EIGHT DAYS. THE RESULTS ARE TO BE FORWARDED TO THE ENGINEER FOR REVIEW AND APPROVAL.
7. SET BOTTOM ROW OF BLOCKS IN WET CONCRETE.
8. ALL BACKFILL TO BE COMPACTED TO 93% MOD AASHTO DENSITY
9. STORM WATER BEHIND THE TOP OF THE WALL TO BE MANAGED IN SUCH A MANNER AS TO OBVIATE SCOUR BEHIND OR OVER - TOPPING OF THE WALL.

ROADS AND FOOTPATHS :

1. ALL LEVELS, DIMENSIONS AND SETTING OUT DETAILS TO BE VERIFIED BY CONSULTANT AND CONTRACTORS ON SITE PRIOR TO CONSTRUCTION.
2. THE POSITIONS OF ACCESSES ARE TO BE DETERMINED IN CONSULTATION WITH THE LOCAL COMMUNITY. DAYLIGHT REQUIREMENTS ARE TO BE DECIDED BY THE ENGINEER ON SITE. CONCRETE WEDGES ACCORDING TO CIVIL ENGINEERS DETAILS AND SPECIFICATIONS MAY BE USED IN PLACE OF SURFACED BELL-MOUTHS FOR ACCESSES SERVING SINGLE RESIDENTIAL PROPERTIES.
7. EXISTING ROAD SIGNS, SERVICES AND FENCING AFFECTED BY CONSTRUCTION ARE TO BE REMOVED/RELOCATED ON INSTRUCTION BY THE CIVIL ENGINEER.
8. UNDERGROUND SERVICE CROSSINGS AND MARKERS ARE TO BE ACCORDING TO CIVIL ENGINEERS DETAILS AND SPECIFICATIONS.
9. ALL NEW ROAD SIGNS AND ROAD MARKING REQUIREMENTS ARE TO CONFORM TO THE SOUTHERN AFRICAN DEVELOPMENT COMMUNITY ROAD TRAFFIC SIGNS MANUAL (SADC - RTSM).
10. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH "COLTO SPECIFICATIONS FOR ROAD AND BRIDGE WORKS FOR STATE ROAD AUTHORITIES".
11. NEW FILLS AND EXPOSED CUTS ARE TO BE TOP-SOILED AND VEGETATED IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION.

STORMWATER :

1. ALL STORMWATER PIPES ARE CLASS 100D CONCRETE AND HD CL 34 uPVC PIPES.
2. ALL STORMWATER CONCRETE PIPES TO COMPLY WITH SANS 677 STANDARDS.
3. ALL uPVC PIPES TO COMPLY WITH SANS 966 STANDARDS.
4. ALL JOINTS TO BE 'SPIGOT AND SOCKET' TYPE.
5. ALL STORMWATER PIPES TO BE LAID ON CLASS B BEDDING.
6. ALL EXISTING DRAINAGE CULVERTS ARE TO BE INSPECTED, AND ANY FOUND IN UNSERVICEABLE CONDITION ARE TO BE REPLACED ON INSTRUCTION BY THE CIVIL ENGINEER.
7. CULVERT INVERTS ARE TO BE DECIDED BY CIVIL ENGINEER ON SITE UNLESS SHOWN OTHERWISE. MIN. COVER = 600mm, MIN. SLOPE = 2%.

SCALE (mm)

0 20 40 60

No.	REFERENCE DRAWINGS

REV	DESCRIPTION	BY	DATE
P1	FOR TENDER	A.D.	2024.03.22

Professional person XX Registration XX

CLIENT

ETHEKWINI MUNICIPALITY

PROJECT

eTHEKWINI: PROVISION OF INCREMENTAL SERVICES TO INFORMAL SETTLEMENTS: MSHAYAZAFE WARD 55

DETAILS

ROAD CROSS SECTIONS

MAP AFRICA CONSULTING

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website : www.mapafrica.co.za
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DRAWN	A.D		AS SHOWN
APPROVED	L.S	PL	DATE 2024.03.22

CONTRACT No. 4V-28988

DRAWING No. 557/MSHA/902-1 REV P1