

## DRAWING INDEX

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-	MISCELLANEOUS DETAIL

## PIPE DIAMETER USE NOMINAL SIZES

METRIC UNITS	ENGLISH UNITS
15 mm diameter	1/2 inch
20 mm diameter	3/4 inch
25 mm diameter	1 inch
32 mm diameter	1 1/4 inches
40 mm diameter	1 1/2 inches
50 mm diameter	2 inches
63 mm diameter	2 1/2 inches
75 mm diameter	3 inches
100 mm diameter	4 inches
150 mm diameter	6 inches

## FIXTURE CONNECTION SCHEDULE

FIXTURE	WASTE (mm)	TRAP (mm)	VENT (mm)	CWL (mm)
WATER CLOSET	100	INTEGRAL	50	32
URINAL	50	INTEGRAL	50	25
LAVATORY	50	32	50	15
SLOP SINK	50	50	50	15
PANTRY SINK	50	32	50	15
HOSE BIBB				15

### NOTE:

PURSUANT TO ITEM 5 OF ANNEX 'A' OF THE REVISED IMPLEMENTING RULES AND REGULATION OF R.A. 9184, THE APPROVAL BY THE AUTHORIZED GOVERNMENT OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGNS UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGNS NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

THE DESIGN CONSULTANT SHALL BE HELD FULLY RESPONSIBLE FOR THE FAILURE OF THE FACILITIES/STRUCTURES DUE TO FAULTY DESIGN EXCEPT FOR THE CHANGES MADE WITHOUT THE CONFORMITY OF THE CONSULTANTS.

HIDEFUMI EZAWA  
PROJECT MANAGER

## GENERAL NOTES

- ALL PLUMBING WORKS INCLUDED HEREIN SHALL BE EXECUTED ACCORDING TO THE PROVISIONS OF THE PHILIPPINE PLUMBING CODE, THE NATIONAL BUILDING CODE, AND THE RULES AND REGULATIONS OF DAVAO CITY.
- COORDINATE THE DRAWING WITH OTHER RELATED DRAWINGS AND SPECIFICATIONS. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY FOUND HEREIN.
- ALL PIPES SHALL BE INSTALLED AS INDICATED ON PLANS. ANY RELOCATIONS REQUIRED FOR PROPER EXECUTION ON OTHER TRADES SHALL BE WITH PRIOR APPROVAL OF THE ARCHITECT OR ENGINEER.
- PROPOSED SANITARY UTILITIES SHALL CONFORM TO THE ACTUAL LOCATION DEPTHS AND INVERT ELEVATIONS OF ALL EXISTING PIPES AND STRUCTURES VERIFIED BY THE CONTRACTOR.
- ALL SLOPES FOR HORIZONTAL DRAINAGE SHALL MAINTAIN 0.5%. FOR SEWER SHALL BE 1.5 % MINIMUM UNLESS OTHERWISE SPECIFIED.
- SIZES OF WATER SUPPLY PIPES TO FIXTURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES AT SITE AND COORDINATE THE WORKS WITH THE SEWER EFFLUENT DISPOSAL POINT AND WATER LINE SERVICE CONNECTING POINT.
- ALL PIPE SIZES ARE IN MILLIMETERS AND ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

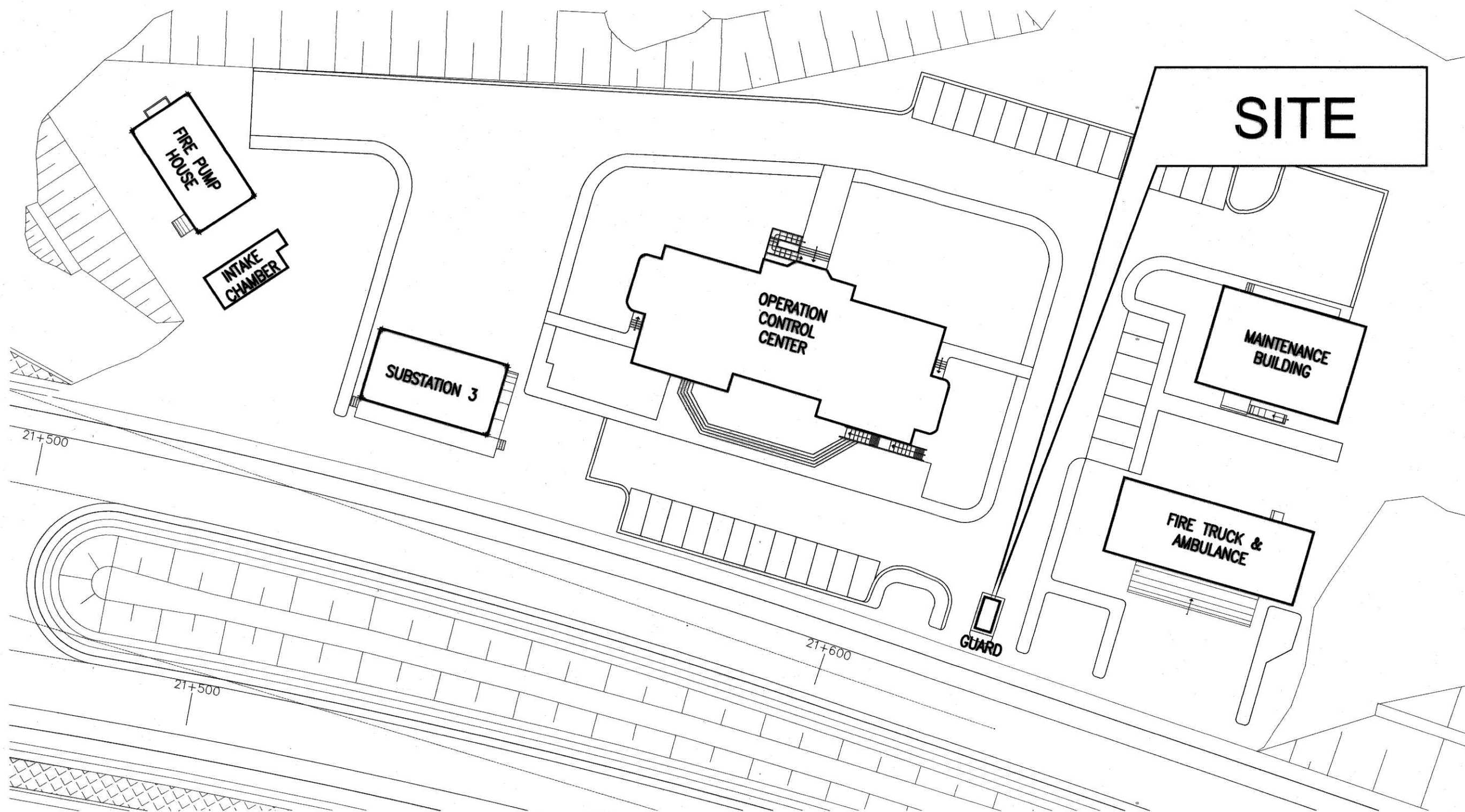
## MATERIAL SPECIFICATION

### COLD WATER LINE

FOR RISER, DOWNFEED AND DISTRIBUTION LINES - SHALL BE POLYPROPYLENE PIPE, (PPR PIPE) PIPE PN 20. HIGH RESISTANT TO PRESSURE AND TEMPERATURE, CONFORMING TO DIN SPECIFICATION DIN 8077 AND DIN 8078 OR ASTM F2389, FORMING POLYFUSION HOMOGENEOUS JOINT.

### DWV (SEWER AND WASTE LINES, VENT LINES, DOWN SPOUT, DRAIN LINES, STORM DRAINAGE COLLECTOR) PVC

- WASTE PIPES SHALL BE POLYVINYL CHLORIDE (PVC) PIPE CLASS DWV CONFORMING TO ASTM D2729 OR ISO R-161.
- VENT PIPE - SHALL BE POLYVINYL CHLORIDE (PVC) PIPE TO ASTM 2729 OR ISO R-161.
- VENT STACK PIPE - SHALL BE POLYVINYL CHLORIDE (PVC) PIPE TO ASTM 2729 OR ISO R-161.
- DOWNSPOUT - SHALL BE POLYVINYL CHLORIDE (PVC) PIPE TO ASTM 2729 OR ISO R-161.
- STORM DRAIN PIPE- SHALL BE POLYVINYL CHLORIDE (PVC) PIPE FOR 200mmØ AND SMALLER, CLASS DWV CONFORMING TO ASTM D2729 OR ISO R-161, CONCRETE OR HDPE PIPES FOR ABOVE 200mmØ.



1 SITE DEVELOPMENT PLAN  
0c2-01 NOT TO SCALE

## GATE & CHECK VALVES

GATE VALVE 50mmØ AND LARGER, SHALL BE RISING STEM OUTSIDE SCREW AND YOKE (OS & Y) FLANGED CONNECTION AND SHALL BE IRON BODY WITH BRONZE TRIM, MINIMUM OF 150 PSIG WORKING PRESSURE. FOR 40mm AND SMALLER SIZES, SHALL BE RISING STEM / OR NON-RISING STEM INSIDE SCREW FEMALE THREADED AND SHALL BE BRONZE FINISHED MINIMUM OF 125 PSIG WORKING PRESSURE.

## DRAINS & CLEANOUTS

DRAINS AND FLOOR CLEANOUT SHALL BE BLACK STEEL /OR CAST IRON FOR ALL HOUSING AND BODY AND SHALL BE BRASS COATED FINISH FOR ALL DRAINS STRAINER AND STAINLESS STEEL FOR ALL TOILET DRAINS STRAINERS.

## WATER METER

SHALL BE DAVAO CITY WATER DISTRICT APPROVED.

## GATE VALVE

CLASS 150-SIMILAR TO KITZ, CRANE, NIBCO, OR APPROVED EQUAL.

## LEGEND: WATER DISTRIBUTION SYSTEM

-----	CWL	COLD WATER LINE
-----	DWL	DEEPWELL WATER LINE
-----○-----	CWR/CWDF	COLD WATER RISER/DOWNFEED
-----X-----	GV	GATE VALVE
-----⊕-----	WM/SWM	WATER METER/SUB-WATER METER

## WASTE, SEWER & VENT SYSTEM

-----	SP/WP	SEWER PIPE/WASTE PIPE
-----	V/VAC	VENT/VENT ABOVE CEILING
○	SS/VS/WS	SOIL/VENT /WASTE STACK
⊕	VSTCD	VENT STACK THRU CONCRETE DECK
⊕	FCO/GCO	FLOOR/GROUND CLEANOUT
□		FLOOR DRAIN/SHOWER DRAIN

## DRAINAGE SYSTEM

-----	DP	DRAIN PIPE
⊗	AD/CB	AREA DRAIN/CATCH BASIN
□	FD/PSD	FLOOR DRAIN/PARKING SLOT DRAIN

### CONSULTANT:

NIPPON KOEI CO., LTD.  
Nippon Engineering Consultants Co., Ltd.

IN ASSOCIATION WITH  
PHILKOEI INTERNATIONAL, INC.  
CONSULTANTS PLANNERS ENGINEERS

Katahira & Engineers International

### PREPARED:

RENE FLODELIZ  
SANITARY ENGINEER

### SUBMITTED:

HIDEFUMI EZAWA  
PROJECT MANAGER

### PRC REG:

1814  
DATE: NOV. 04, 2019  
PTR NO.: 11118913  
DATE: FEB. 08, 2019  
PLACE: SAN. WATER/RELA

### PROJECT NAME AND LOCATION:

DAVAO CITY BYPASS CONSTRUCTION PROJECT  
CONTRACT PACKAGE I-1  
(STA. 12+800 - STA. 23+500)  
REGION XI  
PROVINCE OF DAVAO DEL SUR

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LEGENDS AND SYMBOLS  
SITE DEVELOPMENT PLAN



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
ROADS MANAGEMENT CLUSTER-1 (BILATERAL), UPMD  
NCR COMPOUND, 2ND STREET, PORT AREA, MANILA

### REVIEWED:

ROBERTO C. MENDOZA  
PROJECT MANAGER II / CORE HEAD  
UPMO-RMC I  
DATE:

### REVIEWED AS TO DESIGN CONCEPT:

JOSEPHINE P. ISTURIS  
CHIEF BUILDING DIVISION  
BUREAU OF DESIGN  
DATE:

### RECOMMENDED:

MARIO C. CASTILLO  
PROJECT DIRECTOR  
UPMO-RMC I  
DATE:

(SEE COVER SHEET)

LEA N. DELFINADO, CESO IV  
DIRECTOR IV, BUREAU OF DESIGN  
DATE:

(SEE COVER SHEET)

GILBERTO S. REYES  
ASSISTANT SECRETARY FOR  
TECHNICAL SERVICES  
DATE:

### APPROVED:

EMIL K. SADAIN, CESO I  
UNDERSECRETARY FOR  
UPMO OPERATIONS AND TECHNICAL SERVICES  
DATE:

### SET NO.

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### SHEET NO.

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