
E. Demolition Management Plan

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SITE QUALITY PLAN OH&S & ENVIRONMENTAL MANAGEMENT MANUAL

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Prepared For: GROCON CONSTRUCTIONS NSW PTY LTD

Project: Ribbon Project, Darling Harbour

Prepared By: Moe Moukahal

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ATTACHMENTS	Yes / No /TBA/NA
TRADE LICENCES	Y
PUBLIC LIABILITY INSURANCE POLICY	Y
WORKERS COMPENSATION INSURANCE POLICY	Y
ACIRT (REDUNDANCY) RETURNS	Y
CBUS (SUPERANNUATION) RETURNS	Y
CTAS (COVERFORCE TOP UP ACCIDENT SCHEME) RETURNS	Y
WORKFORCE SCHEDULE & QUALIFICATIONS	TBA
LONG SERVICE LEAVE REGISTRATION	Y
PERMIT/NOTIFICATION TO WORKCOVER	Y
EMERGENCY EVACUATION PLAN	BY GRCN
SITE SAFETY RULES / HOUSE RULES	BY GRCN
TRAFFIC MANAGEMENT PLAN	BY GRCN
SCOPE OF WORKS	Y
HAZARDOUS MATERIALS REPORTS	Y
BACK GROUND AIR MONITORING	NA
OCCUPATION CLEARANCES	NA
SITE DIARY RECORDS	NA
PROGRAM	GRCN
TIPPING DOCKETS	NA

3) INTRODUCTION

This document sets out the safety management strategy to be adopted by The Contractor during the course of the works for client.

This document is not designed to replace the Schedule of Health Safety & Environmental requirements as stated in the Special Conditions of Contract, but will be used to provide verification of the actions of The Contractor in relation to these requirements.

This document and subsequent additions will be made available to the client for the purpose of auditing.

Name of Company: Mann Group NSW
Address: 20 Byrne St Auburn NSW 2144
Phone: (02) 9890 3335 **Fax:** (02) 9890 3455

Mann Group will provide Lee Ngaropo as the persons on site responsible for supervision of the Scope of Works and its safety.

The peak number of employees on the site will be: 30
The Contractor intends to subcontract no parts of the works.

Trade Name: Demolition
Contract Job Number:
Managing Director: James and Leny Manassa
Address: Ribbon Project (old IMAX) Darling Harbour
Site Phone: _____ **Site Fax:** _____

Scope of Works:

Demolition of IMAX, Darling Harbour, generally involving the following deliverables.

- Scaffold protection to all elevations of the building.
- Hazmat removal (if any discovered)
- Total demolition of existing Building.

4) CONTRACTOR PROJECT MANAGEMENT PLAN

METHODOLOGY

Safe Work Method Statements (SWMS) and Job Safety Analysis (JSA's) is will be forwarded to the client prior to works commencing. These task / site method statements will procure and all employees will be inducted into the safe works practices prior to the works.

Task / site specific method statements will be filed on site in the forms section of this manual ready for auditing and reference for all workers.

SITE FOREMAN (APPOINTMENT)

The Contractor hereby appoints Lee Ngaropo as Site Foreman for this project. Lee can be reached by mobile phone on mobile number 0425 367 596 or all issues relating to the demolition and management of hazardous materials removal on site. Should the Site Foreman for the site change, The Contractor will notify the principal contractor in writing.

PERMIT

Fees and Permits are to be obtained by the client for this project.

WORKING HOURS

The Contractor will work in accordance with the following times as per the approved DA conditions:

7:00am – 7:00pm Monday to Friday

7:00am – 5:00pm Saturdays

No work Sunday or Public Holidays

Noise respite period Monday to Friday 12:00 to 1:00

SIGNAGE

Signage and barriers will be erected at around the perimeter of each of the works are prior to commencement. A copy of The Contractors management team as well as emergency phone numbers will also be erected at strategic locations on the perimeter demarcation points and within the site sheds. This is to provide all persons with contact details of authorised person/s whom have the legal right to control the egress and ingress of visitors and all parties interested in gaining access to the hazardous materials removal and demolition areas and buffer areas.

SITE FACILITIES

Site amenities are to be provided by the client. Amenities are to be maintained by The Contractor. Lunch, change room and the toilet block will be connected to power, water and sewer. Dimensions and capacity of sheds and amenities will satisfy WorkCover requirements. A first aid kit will be placed within the site office. Emergency telephone numbers will be displayed at various locations surrounding the site.

HYGIENE

All site facilities will be constantly cleaned and kept tidy by the client. Personnel involved in work activity on site shall be required to attend to personal hygiene prior to taking meal breaks. Food and drinks shall only be consumed within the site facility area.

PROHIBITED ACTIVITIES

No narcotic drug and/or alcohol will be tolerated during working hours. Any persons under the influence of such items will not be permitted to enter the site and carry out work functions, the decision to refuse work for an employee under the influence of prohibited substances will be made by the onsite foreman if they have any doubts that the employee is unfit for work. Mann Group NSW will uphold Grocon's NO SMOKING POLICY onsite. At no stage shall fires be lit on site or shall any activity which may lead to a fire be permitted. Other prohibited activities include the use of:

- 1) Explosives,
- 2) Concrete crushing plant

FIRST AID

A certified first aid officer will be appointed on site at all times to carry out the functions of first aid. A complete first aid kit (Type A or B) will also be kept on site at all times with the site office. All site staff will be made aware of the location of the first aid kit during the site induction.

ONSITE WATER

Prior to commencing works, mains water pressure points will be identified for on-site dust control and fire fighting purposes. Water sprayed over the works will reduce the amount of dust particles generated.

ISOLATION OF WORK AREAS

Unauthorised access into designated isolated work areas will not be allowed. Construction signage will be placed along perimeter points of the works area highlighting Unauthorised Access areas. A combination of signs, bunting tape and barricades will be used to section off areas.

SAFE ACCESS AND EGRESS

No demolition activity shall cause damage to or adversely affect the safe access and egress of this building. Mann Group shall ensure that the fire stairs shall be free of rubble and obstructions at all times, as too shall the builder ensure that temporary lighting shall be installed in the fire stairs throughout the duration of the project.

5) CONTRACTOR ENVIRONMENTAL MANAGEMENT PLAN

ODOR CONTROL

The contractor will not be partaking in any works associated with the emission of odor.

TRACKING MATERIAL FROM ON TRUCK TYRES

All roads are hard surface roads. Mann Group will ensure road surface will kept clean by manually sweeping or by utilizing mechanical means of sweeping when needed. All vehicle will be loaded from concrete or sealed hardstands and any minor spillages shall be swept up immediately by the gate men.

SEDIMENT & WATER CONTROL PLAN FOR DEMOLITION

The Contractor will ensure that sediment controls measures such drain socks, geofabric and or sand bags or many other forms of geofabric products are purchased an installed at critical locations around the site to divert, dam and remove, filter or catch and water/s containing sediment from entering storm water or sewerage systems.

Waste water derived from demolition and excavation activities (when using mist spray for dust suppression) will be filtered before entering the storm water system.

Any ground water or storm water entering the basement into the excavation area shall be collected into a sump excavated within the excavation. The water in the sump shall be allowed to settle over night with the aid of flocculants and then pumped out into the existing storm water systems pending approval by local council. As a general rule, no water exceeding 60mg/L of sediment will be allowed to enter the cities storm water system.

Any asbestos contaminated water is to be passed through a HEPA filter pump box prior to being released into on site sewer systems.

Mann Group operations involving demolition and excavation works will comply with :

- 1) The Department of Land and Water Conservation's Erosion and Sediment Control Manual and the Department of Housing Manual Managing Urban Stormwater – Soils and Construction (August 1998) &
- 2) NSW Protection of the Environmental Operations Act 1997.

Should groundwater require dewatering, further advise will be sought from geotechnical engineers and dewatering systems shall be designed and implement under the direction of the client.

WASTE TRANSPORT AND DISPOSAL

All contaminated and non recyclable materials to be loaded and transported to an EPA approved landfill sites. All loads departing the site shall be covered with tarpaulins to ensure that any sediment does not escape the truck or bin body.

All recycled materials will be disposed of at the closest and relevant recycling depot. Details of the recycling depots will be described in the site Waste Management Plan.

DUST MINIMISATION

The Contractor will always adopt the application of mist spraying during its works to suppress the migration of dust. Vacuum cleaners and water pumps within the works areas shall effectively suck up and treat and contaminated mist spraying water from further contamination of the work site.

STORAGE OF DANGEROUS GOODS

Because Mann Group will be constantly using flammable fuels such as petrol, diesel, Oxy-acetylene, oils, etc. Storage of such items will be in a lockable compound with sufficient ventilation and sufficient bunding.

Material safety data sheets on all of these flammable and potentially harmful liquids will be provided to the superintendent's representative for approval.

6) WASTE MANAGEMENT PLAN

RECYCLED MATERIALS

All material generated from the demolition contract will be recycled apart from the saw cutting sludge water and hazardous waste. In past projects Mann Group NSW has managed to recycle approximately 98% of its demolition material for total demolition projects and 85% of refurbishment demolition projects, and the same is expected on this project.

All materials will be remove and loaded out from the site progressively by hand and by machine progressively not allowing it to be mixed with waste of other form to prevent double handling and additional work to separate materials prior to load out.

Below is a table outlining what material we will encounter on site and where it will be recycled/landfilled;

ITEMS	LOCATED TO	RECYCLABLE OR NOT
STEEL	Sell & Parker	RECYCLABLE 100%
COPPER	Sell & Parker	RECYCLABLE 100%
ALUMINIUM	Sell & Parker	RECYCLABLE 100%
WIRING	Sell & Parker	RECYCLABLE 100%
CONCRETE/ BRICKS	Dial A Dump Industries	RECYCLABLE 100%
JOINERY, PARTITIONS, FLOOR & FINISHES	Dial A Dump Industries	LANDFILL
ASBESTOS	BLACKTOWN WASTE SERVICES	LANDFILL

The following list of contact details and addresses reflect the landfill and recycling facilities listed above:

1. Dial A Dump – Alexandria
2. Sell & Parker – Banksmeadow
3. Blacktown Waste Services – Richmond

Since the building is a full demolition project Mann Group is only expected to achieve more than 95% recycling of its waste by weight. This includes metal recycling for manufacturing and concrete recycling for road building products (Road Base).

All material, which leaves site, shall be accounted for via documentation as to who and where the materials shall be recycled or land filled. At the completion of the project, all documentation such as disposal docketts will be produced to the client.

TRANSPORT OF MATERIALS

Mann Group shall be responsible for all the transport associated with this project. Mann Group's details are located on the front cover of this report.

Mann Group shall transport all demolition and excavation refuse from site with the use of bogies trucks, twin steer bin trucks, single axle 8 tonne tippers. All loads shall be covered and all asbestos bin loads shall be concealed with 200um plastic in accordance with EPA and WorkCover NSW guidelines.

NON RECYCLED MATERIALS

Mann Group will not be able to sludge water derived from saw cutting activities. All sludge water will be collected by bunding around existing drain holes to not allow water to enter the existing storm-water system and sewer systems. Water will be continually vacuumed from all floors to ensure all is captured. Existing drain holes will be also being lined with geotextile in case of over flowing bunding walls. Bunding will be made from sand bags and geotextile.

Water will be emptied from wet vacuums and poured into 200L drums supplied by Mann Group. Water will be allowed to settle over night and siphoned into the existing sewer systems should the water at the top be 100%. If settling is not achieved, waste drums will be sealed and loaded onto Mann Group tipper trucks and taken to the Mann Group yard at Auburn where it will be poured into the Mann Group wash bay and will be passed through a triple interceptor and settlement tank.

Mann Group shall at all times perform its waste management activities in accordance with:

- 1) Environmental Protection Waste Management Policy 2000

7) ROLES & RESPONSIBILITIES

MANAGING DIRECTOR (James Manassa)

- Defining responsibilities of personnel responsible and qualified for OHS&R matters.
- Identification of system verification requirements and allocation of human, technical and financial resources adequate to meet those needs.
- Managing compliance with OH&S legislation, regulation, standards and codes.
- Provide Board of Directors with a review of organisational Occupational Health and Safety performance on a regular basis.
- Develop review and maintain policies for the company.

PROJECT MANAGER (Leny Manassa)

- Developing site safety plans that are consistent with the company Safety Management System.
- Disseminating OHS&R information to the personnel.
- Review work method statements issued by contractors.
- Investigating incidents and accidents and initiating corrective (preventative) actions.
- Assessment of sub-contractors' abilities to comply with OHS&R requirements.
- Planning and conducting safety training.
- The development and implementation of emergency procedures.
- To support and assist with the rehabilitation of employees who have been injured at work, by encouraging their early return to normality through work based rehabilitation programs.

SITE MANAGER (Mahmoud Moukahal)

- Ensuring the Project Safety Plan is implemented.
- Ensuring compliance with safe working rules.
- Quarantining unsafe work areas, materials, plant and equipment.
- To encourage reporting of all incidents and mishaps as well as accidents and injuries. Ensure the appropriate forms are completed and investigate all reported events. Collate accident and injury statistics.
- To ensure that all persons on site receive induction training and arrange other health, safety and on the job training when required.
- To monitor sub-contractors compliance with their Project Safety Plan.

FOREMAN (Lee Ngaropo)

- To be on site to supervise the works 100% of the in accordance with WorkCover NSW requirements.
- To encourage the involvement of all personnel in achieving a safe and healthy workplace by personally being involved with OH&S Committee, arranging tool box meetings and inviting input from people on matters relating to work processes as well as to health and safety.
- To ensure that safe working practices and procedures are implemented.
- To ensure that plant and equipment is maintained in a safe condition, with guards and safety devices in place and a regular program of maintenance occurs in accordance with Project Safety Plan.
- Through regular plant inspections as detailed in Project Safety Plan, identify potential problems and hazards. When necessary, arrange assessment of possible hazards and institute control measures.
- Ensure first aid is available to all persons on site when required.
- Ensure a register of persons receiving first aid treatment.

8) INSPECTION AND TESTING

SITE CONTROL

Any on-site queries in relation to work procedures shall be addressed to the contracts supervisor of The Contractor who will contact the client.

All sub-contractors working on site shall be bound by this OH&S Plan, Specific Work Plans and will be required to undertake a Site Induction provided the Principal Contractor. Each sub-contractor shall be required to nominate their on-site representative for Safety and Operational communications. A site diary will be kept on site at all times and is to be filled in by all persons entering the site.

SAFETY AUDITS

An on-site representative will be elected to join site safety committee and carry out independent safety audits on a regular basis. Site inspections will be held by the elected safety committee. Summary of the site inspection shall be minuted, highlighting the required follow up actions. The safety committee will be responsible for conducting safety audits and follow up action. Once the representative has been announced, their names will be submitted.

HEALTH AND SAFETY MONITORING

A site safety walk will be performed periodically during the course of the contract. The purpose of the walk is to:

- Monitor the health and safety issues on site;
- Record any noticeable defects in work practices and/ or non conformance of individuals to work practices;
- Notify the Principal Contractor daily or as seen appropriate by sub-contractors on site safety issues.

Once defects have been found, they are then brought to the attention of the site foreman for corrective action.

9) TRAINING

SITE INDUCTION

At the commencement of the project, the Foreman and/or the Project Supervisor will brief the employees, sub-contractors and visitors on the specific nature of the project.

Safety procedures will be revised (on completion of risk assessments), and all members of the crew shall have received a copy of the Company Safety Policy. Expectations of the wearing of safety clothing and other protective gear will be revised. Employees without appropriate safety equipment will have that equipment ordered for them.

Specific Safe working procedures will be explained additional to work method statement, as will delicate work required within the scope of the project and isolation of work areas. A strong emphasis will be placed on the required procedures and safety equipment supplied and to be used for works at heights.

Ongoing updates will take place should the scope of the works alter throughout the life of the project.

The Site Induction will be conducted by an English speaking Foreman. The topics to be discussed shall include:

1. Site Safety Rules
2. Emergency Evacuation and Muster Point.
3. Scope of Works to be performed.
4. Site Induction Procedure.

QUALIFICATIONS REQUIRED

On the job and in-house training will take place, involving experienced Supervisors, Foreman and other personnel who will train and re-train employees, to ensure safe working practices in accordance with the relevant codes for the works are maintained on all projects.

RECORDS

Records and acknowledgment of the Site Induction of each employee will be kept on site as will Safety Checklist/minutes completed by the Safety Committee.

10) HAZARD IDENTIFICATION AND RISK ASSESSMENT

PROCEDURE (RISK ASSESSMENT)

Occupational Health and Safety Legislation requires anyone in control of the workplace to identify the potential hazards of the proposed work, assess the risks involved and develop controls to eliminate, or minimise, the risk.

The Project Manager is to populate the Risk Assessment for the project in its entirety. All potential risk relating to specific trade groups and general tasks that can be grouped as a package. The hazards identified in the risk assessment are to be rated. Should the rating (utilising the hazpak method of rating risks below) yield a 1 or 2 (High or Significant Risk) then a Safe Work Method Statement or (SWMS) must be developed to further refine the identification of risk, allocate a methodology and sequence of works and mitigate controls to lessen the risk to a category 3-6.

A list of SWMS will then be developed from the risk assessment and through careful planning a consultation a well developed SWMS shall prevail.

NB: All category 1 or 2 Hazards developed from the Risk Assessment are to be collated and to form part of the Action List (AL) for the project.

IDENTIFY HAZARDS

To help find all potential hazards the job will be broken down into activities which follow the sequence of construction. These activities are provided in a Safe Work Method Statement (SWMS), which is a list of job procedures, and other work related practices provided to the Principal Contractor. The SWMS details how the Scope of Work will be carried out.

For each of the work activities and associated job steps identified in the Work Method Statement provided the Contractor will identify potential hazards.

To assist this process resources such as the following will be used:

- WorkCover and trade based Codes of Practice and other publications, e.g. safety alerts;
- Hazard Profiles for specific trade groups;
- Workplace experience; and
- Consultation (e.g. Tool Box Talks) with workers experienced in the task to be undertaken.

ASSESS RISKS

For each potential workplace hazard identified a Risk Class will be determined by referring to the categories below. The attached Risk Management chart will be used to determine the requirement for management of the risks identified. The method of risk assessment used is the WorkCover NSW Hazpak method of assessment as depicted below.

RISK RATING ACTION	
1 –	High risk; immediate action is required
2 –	Significant risk; important to do something about this hazard as soon as possible
3-4 –	Medium risk; risk control measures are required
5-6 –	Low risk; manage by routine procedures

HAZPAK OHS RISK RECKONER				
	LIKELIHOOD - HOW LIKELY IS IT TO HAPPEN AND HOW OFTEN?			
CONSEQUENCES – HOW BAD IS IT LIKELY TO BE?	Very Likely could happen at any time VL	Likely could happen some time L	Unlikely could happen, but rare U	Very Unlikely could happen, but probably never VU
Extreme - Kill or cause permanent disability or ill health K	1	1	2	3
Major – Long term illness or serious Injury S	1	2	3	4
Moderate – Medical attention and several days off work M	2	3	4	5
Minor – First aid needed F	3	4	5	6

METHOD OF CONTROLLING RISKS

The Contractor will endeavor to control risks by utilizing the following methods in accordance with the requirements of the Occupational Health and Safety Regulation 2001. THE CONTRACTOR will re-analyse the risk after measure of control have been put in place in the risk assessment matrix.

HEIRARCHY OF RISK CONTROL	
1. ELIMINATE	Get rid of or eliminate the hazard out of the workplace.
2. SUBSTITUTION	Substituting the hazard giving rise to the risk with a hazard that gives rise to a lesser risk.
3. ISOLATION	Isolating the hazard from the person put at risk.
4. ENGINEERING	Minimising the risk by engineering means.
5. ADMINISTRATION	Minimising the risk by administrative means (eg by adopting safe working practices or providing training, instruction or information).
6. PPE	Using PPE (personal protective equipment).

11) SKILLS AND COMPETENCIES

PROCEDURE

The Contractor will ensure that persons carrying out the nominated work have relevant training including Occupational Health and Safety (OH&S) Induction Training. Workers will not carry out construction work until they have received the minimum requirements for OH&S induction training:

- Industry (general) induction;
- Work Activity OH&S induction; and
- Site Specific OH&S Induction.

ASSESSMENT

The Contractor will undertake a training/ competency assessment of all employees prior to the commencement of work on the nominated site. Where skill deficiencies are detected appropriate training will be provided *before* work commences so that employees can perform their designated duties safely.

SELECTION AND USE

The following register will be provided to the appropriate Principal Contractor's representative on site for review.

- Workers will be selected for specific tasks based on their level of skill and competency to undertake the work safely.
- Where workers are unskilled in the required task appropriate training will be provided prior to commencement of the work.
- All workers will receive the above three minimum OH&S induction training requirements before work on site commences and a record of the training provided on the following register.
- A register of all employees will be kept by the Project Manager with all relevant qualifications obtained by each worker. SWMS and JSA's will also have separate Inductions form completed prior to performing the works. The following form is included for new starters that commence work on a new project and that have not been entered into the official company system.

12) WORKERS COMPENSATION AND REHABILITATION

PROCEDURE

The Sub Contractor will provide Workers Compensation Insurance for all employees and other persons deemed to be employees under the Workers Compensation Act 1987. The trade and occupation of each employee on site and their salaries will be recorded. A record of the insurance will be provided with the *current* copy of the policy details issued by the insurer. Where more than 20 persons are employed a nominated Rehabilitation Coordinator will be appointed and listed on the following form.

ASSESSMENT

Where contractors are engaged to carry out work their ability to be considered an “employee/s” under the Workers Compensation Act 1987 will be assessed.

ACCIDENT & INCIDENT INVESTIGATION

Should an accident occur it will be investigated immediately and recorded into a register/site diary by the site foreman. Discussions will be held by all parties involved in the incident and those responsible for maintaining site safety. Reasons as to why the accident occurred will be tabulated and measures to prevent its reoccurrence will be developed and implemented into the OH&S Plan. In case of serious work-related injuries, illness or dangerous occurrences an incident (defined as near miss accidents) will be investigated by foreman/ supervisor or by management if deemed necessary.

SITE EMERGENCIES AND EVACUATION

All employees will be informed of the site evacuation procedures during the site induction. A site emergency will be deemed to be in effect in the case of the following:

- Fire in structure/buildings
- Fire in machinery
- Uncontrolled release of hazardous materials including gases, dusts, liquids or solids

The site foreman will be in charge of the evacuation procedure. The mustering point for evacuation of personnel is the main entrance to site, unless otherwise specified by the head contractor on building sites. In this case, it is expected that a diagram will be provided by the client to ascertain the muster point for emergency evacuation. At the muster area every person must stand and be accounted for. If necessary the appropriate external emergency services shall be notified. All employees, during the initial site induction, will be shown where the emergency evacuation point and all nurse call stations are located.

13) HAZARD REPORTING

PROCEDURE

The Sub Contractor will encourage all employees to report hazards immediately to Mann Group NSW foreman who will then notify Grocon Supervisor immediately. Our supervisor on site will investigate all reported hazards and document corrective actions. Corrective actions will be signed off when completed. The supervisor will complete a Hazard Report where hazards cannot be corrected immediately. The Sub Contractor will issue our Hazard Report form to all supervisory personnel and safety committee representatives. A number of forms for employee use will be placed in the appropriate crib shed.

ASSESSMENT

When a hazard is identified in the workplace a Risk Class will be assessed immediately using Hazpak. The Risk Class will determine the appropriate level of response required to protect the health and safety of workers – i.e. immediate, within 24 hours, within 48 hours and so on.

CORRECTIVE ACTIONS

- The Hazard Report will be signed by the inspection team leader and presented to Mann Group NSW supervisor if he/ she is not part of the team.
- The above mentioned supervisor shall sign off the report when satisfied that all items on the report have been satisfactorily actioned. Copies of the signed off reports will be recorded in this Safety & Work Management Manual.

14) ELECTRICAL

PROCEDURE

The Sub Contractor will ensure that the use of electrical wiring, portable tools and extension leads will be in accordance with the Code of Practice Electrical Practices for Construction Work. Where a more specific provision is not made in the Code of Practice conformance will be to the provisions of Australian Standard AS-3000, Wiring Rules. All electrical equipment to be brought on site will be listed in the Electrical Equipment Register PCA009. The register will be completed prior to commencement of the works and maintained for the duration of the works on site.

INSPECTION AND TAGGING

All electrical leads, portable power tools, junction boxes and earth leakage devices will be tested, inspected by a suitably qualified person and labeled with a tag of current date before being brought on site. Where this is not possible the Principal Contractor will be advised immediately and assistance requested in order to comply with the requirements of the Code of Practice Electrical Practices for Construction Work. A record of the currency of all electrical equipment will be recorded on the register.

SELECTION AND USE

- Whilst on site any electrical equipment found without a tag of current date issued by a suitably qualified person will not be used.
- Where an electrical item is located without a current inspection and test tag proof of the electrical items currency of inspection and test will be provided or the item will be removed from site immediately.
- When used on a construction site all electrical equipment will be connected to an Earth Leakage protection device at all times.
- Where practicable all electrical leads will be kept off the ground on insulated hangers or on insulated lead stands.
- Extension leads will not be joined together.
- All plugs and sockets will be non-wirable (moulded) or transparent.
- Electrical equipment will not be placed on, or near, wet areas unless the equipment is designed for the specific purpose, e.g. pump.
- Where electrical equipment is hired, e.g. portable generators, work lights and extension leads, The Contractor will ensure that the same requirements for Occupational Health and Safety as those required on site are specified to the Hire Company as a condition of the Hire Agreement.

15) SAFE WORKING AT HEIGHTS

PROCEDURE

Work practices and preventative measures to prevent people falling will be taken into account when designing the position of static lines. Safety harness, lanyards and inertia reels, will be checked thoroughly for condition and compliance for safe working.

All employees working at heights will be issued and required to wear safety harnesses unless a WorkCover approved safety fencing can be erected along unprotected edges. The safety harnesses will be hooked up to a static line and or inertia reels via steel lanyards. The static line will be installed to the building in accordance with WorkCover regulations as applicable and certified by a qualified rigger as required.

All personnel wearing safety harnesses are to be trained for the safe use of harness and associated equipment. A checklist for the safe use of harness is enclosed to assist the operators of the routine maintenance checks required for the same.

Any personnel requiring the use of boom or scissor lifts, and the like, shall be certified to operate the same in accordance with WorkCover/Statutory regulations. All personnel operating the equipment shall at all time possess and hold their certificates of competency on themselves at all times. All elevated platforms utilised shall be maintained and operated in accordance with the statutory and site specific requirements and all records will be kept on site for the same. Scissor lifts and boom lift shall also be present on site, when appropriate, to facilitate emergency recovery when employees are utilising harnesses for works at heights.

16) HAZARDOUS SUBSTANCES

PROCEDURE

Prior to hazardous substances being used on a project, The Contractor will submit a Safety Data Sheet (SDS) to the Principal Contractor for approval. No substances will be brought on site without approval of the current SDS by the Principal Contractor. All substances to be brought on site will be listed categorised accordingly.

SELECTION

The Contractor will consider the following when selecting hazardous substances:

- Flammability and explosivity;
- Carcinogenic classification if relevant;
- Corrosive properties;
- Environmental hazards;
- Toxicity (short and long term);
- Chemical action and instability;
- Extent of PPE required;
- Storage requirements.

STORAGE

- All storage and use of hazardous substances will be in accordance with the SDS.
- All hazardous substances will be stored in their original containers with the label intact at all times.
- Hazardous substances of any quantity will not be stored in crib rooms, container sheds or offices.

USE

- Where practicable, the material with the lowest possible hazard capability that meets the technical requirements for the job will be used.
- Refer to WorkCover and WorkSafe Publications for advice.
- Advice on a substance may be obtained from a chemical database, e.g Chemwatch.

Prior to using the hazardous substance all workers involved in its use will be provided with adequate information and training to allow safe completion of the required task. Confirmation of this training will be provided by a “sign off” on the appropriate Tool Box Talk form or the training record form.

17) LIFTING GEAR

PROCEDURE

The Contractor will ensure that all lifting gear (chains, slings, wire rope, shackles, hooks) to be brought on site have a *current* certificate of test and are listed in the following register. The register will be maintained during the course of the contract.

ASSESSMENT

All lifting slings and accessories will be marked with the manufacturer's identification, Safe Work Load and the grade of the steel or alloy. The Contractor will provide each item with a marked identification number and a current test certificate for each will be held on site and made available on request.

SELECTION AND USE

- Prior to use, all lifting gear will be inspected by a competent person to check for defects. Competent person shall have as a minimum a dogging ticket.
- Lifting gear that does not have a current test certificate will not be brought on site under any circumstances.

18) PLANT

PROCEDURE

Equipment including static (stationery) and mobile plant can be hazardous to workplace safety. In order to comply with Occupational Health and Safety Legislation The Contractor will carry out regular inspection and maintenance of plant and equipment. The inspection and maintenance history of each item will be documented on the appropriate following forms (or their equivalent) and provided prior to commencement on site. Where a relevant Australian Standard is appropriate, e.g. AS-2550 for cranes, the inspection, use and maintenance of the plant will comply as a minimum with the Standard. Where no Australian Standard is provided, the inspection, use and maintenance of the plant will comply as a minimum with the Manufacturers Recommendations. The affect of plant and equipment on the workplace will also be cosidered.

ASSESSMENT

The Contractor will carry out an assessment of the most appropriate type of plant and equipment for the required job. The assessment will include the identification of potential hazards, the level of risk and the provision of appropriate controls to eliminate, or minimise the risk to health and safety of workers. This process will include both the plant and/or equipment itself and its impact on the surrounding workplace.

When identifying potential hazards consideration will be given to all aspects of the plant and equipment including design, work environment, operational conditions, abnormal conditions, ergonomic principles, transportation, storage, installation and erection, access and egress for maintenance, adjustments, repairs, cleaning, use, operator competencies, dismantling and disposal.

SELECTION AND USE

Where plant and equipment is hired the same requirements for Occupational Health and Safety as those required on site will be specified by The Contractor to the Hire Company as a condition of the Hire Agreement.

No item of plant and equipment will be brought on site without a current service/ maintenance record or registration where required.

No plant to commence work onsite prior to Grocon carrying out pre – start for plant.

19) PERSONAL PROTECTIVE EQUIPMENT (PPCE)

PROCEDURE

Where other means of protection are not practicable The Contractor will supply clothing or equipment designed to protect parts, or all, of the body. This equipment may include: gloves, hearing protection, high visibility garments, breathing apparatus, thermal wear, eye protection, sun cream, safety belts and harnesses. Steel cap boots and hard hats are the minimum requirement for entry to a construction site.

ASSESSMENT

During the development of control measures for Job Safety Analysis the “Best” to “Worst” guide to controls outlined in the Job Safety Analysis section of this Safety & Work Management Manual will be used to help minimise reliance on PPE.

SELECTION AND USE

- The Contractor will ensure all items of PPCE are manufactured, used and maintained in accordance with the relevant Australian Standard. Proof of Australian Standard compliance will be provided, e.g. labeling.
- All issues of PPCE to each individual will be recorded on the following form (one for each individual).
- Each employee will be instructed and or trained in the correct use of each PPCE item prior to use.

120 PITT STREET SITE

As 120 Pitt Street is a Grocon Site, Grocon’s minimum PPCE requirements are to be adopted. Mann Group personnel will comply and as a minimum wear the following items of PPCE;

- Hard Hat
- Safety Glasses
- Safety Boots
- Gloves
- Long sleeve shirts
- Long Pants
- Chin strap on Helmets where required

20) FIRE PROTECTION

PROCEDURE

The Project Manager, or his/ her representative, shall ensure that an adequate number and type of fire extinguishers are available at the workplace and additional extinguishers are located in the immediate vicinity of any work that may create a fire risk. This requirement will apply without exception to any hot work such as welding.

The Contractor will ensure all personnel carrying out hot work have a fire extinguisher close-by, are fully trained in the use of extinguishers and that adequate evidence of such training is provided before work commences. A list and current service history of all fire fighting equipment to be brought on site will be provided on the following form.

The Contractor will ensure that all mobile plant is fitted with an appropriate fire extinguisher.

INSPECTION

The Contractor will check the “charge level” of all of our fire extinguishers on site at regular intervals. All fire extinguishers will be serviced and maintained by competent persons and a record completed and maintained in accordance with Australian Standard AS-1851.

Combustible materials will not be allowed to accumulate in work areas to prevent a fire risk.

SELECTION AND USE

All personnel carrying out hot work will be fully trained in the use of extinguishers and a record of the training provided in the appropriate register of this Safety & Work Management Manual.

All personnel will be made aware of the site specific emergency procedure and emergency service phone numbers shall be clearly displayed at a central phone location.

21) TOOL BOX TALKS

PROCEDURE

Occupational Health and Safety Legislation requires the identification of potential workplace hazards, the assessment of the risk of the hazard and the development of controls to eliminate, or minimise, the risk. To assist in hazard identification and the development of controls

The Contractors employees will attend a Tool Box Talk conducted by a Supervisor at a minimum of each morning and lunch time prior to commencement of work. All Tool Box Talks will be recorded on the following form and signed off by participants. Any corrective action will be followed up and signed off by the nominated person.

PARTICIPATION

The Contractor recognises the involvement of workers as essential in identifying potential hazards that can be eliminated, or minimised, before injuries occur. Tool Box Talks will be used to help Supervisors manage safety, to provide a forum for workers to have their say about safety issues and to help ensure safety awareness is maintained throughout the project. Where required specific safety issues will be raised, accidents reviewed, Job Safety Analysis developed and presented for evaluation and familiarisation or safety alerts discussed.

22) FIRST AID & ACCIDENT INVESTIGATION

PROCEDURE

The Contractor will not rely on the provision of First-aid services by the Principal Contractor. The following minimum requirements will be stocked for the given number of personnel on site.

Place of work and no. of persons on the job	First-aid room	Type of Kit Required			Type of Certificate Required		
		Kit A	Kit B	Kit C	First-aid Certificate	Occupational First-aid Certificate	None
<i>For Construction</i>							
100 or more	•					•	
25-99		•			•		
24 or less			•				•

Reference: WorkCover NSW Providing first-aid at work May 1998.

FIRST AID PERSONNEL AND LOCATION OF FIRST-AID

The qualified First-aid person/s on site is _____
Name

The nearest First-aid box/room/shed to the work in progress is _____

REPORTING

All injuries will be reported to the appropriate First Aid Officer on site. Injuries will be recorded in the Site Injury Register and by The Contractor on the attached form or its equivalent.

Records will be kept for a minimum of 10 years. Where the injury results in an absence from the workplace of 7 days or more the injury and its circumstances will be reported to the WorkCover Authority using the appropriate form.

INVESTIGATION

The Contractor will investigate all accidents within a minimum of 24 hours. Investigation will be recorded on Accident Investigation form attached or its equivalent.

Accidents will be recorded by: Lee Ngaropo & Grocon
Name Site Forman
Position

Accidents will be investigated by: Mahmoud Moukahal & Grocon
Name Site Manager
Position

Accidents will be reported to WorkCover by: Leny Manassa & Grocon
Name Project Manager
Position

Workers Compensation

COMPANY:

__Mann Group NSW

PERSON
RESPONSIBLE FOR
PROCESSING
CLAIM:

__Dilek Bugdayli

Phone No.: _9890 3335 _____ Mobile No.:

NAME OF INSURER:

NOTE: A copy of *current* Workers Compensation policy must be attached.

Rehabilitation

NAME OF
REHABILITATION
CO-ORDINATOR:

_Dilek Bugdayli _____

Phone No.: (02)9890 3335 _____ Mobile No.: _____

NAME OF
REHABILITATION
PROVIDER:

Company: Mann Group NSW

Contact: _Dilek Bugdayli _____(02)9890 3335

Form No 3: Plant ID Register

Project:

Date:

The plant listed below will be brought onto site and operated under our control. None of the listed mobile plant will be operated or static plant used, until appropriate plant inspection and maintenance records have been provided to the Principal Contractor. The form/s will be submitted on the first day of every month where plant is on-site for more than one month. All inspection and maintenance records will as a minimum standard comply with the manufacturer's recommendations or relevant Australian Standard where appropriate.

Type	Static (s)/ Mobile (m)	Make	Plant No.	Purpose (use on site)	Inspection Frequency	Inspected by who (qualified person)	Check List Record (What form?)
							Form Sighted <input type="checkbox"/>
							Form Sighted <input type="checkbox"/>
							Form Sighted <input type="checkbox"/>
							Form Sighted <input type="checkbox"/>
							Form Sighted <input type="checkbox"/>
							Form Sighted <input type="checkbox"/>
							Form Sighted <input type="checkbox"/>

Form No 10: Register of Injury

Details of Injured Person:

Name: _____
Surname: _____ Given Name/s: _____ Sex(M/F): _____
Address: _____
No. _____ Street: _____ Suburb: _____ Post Code: _____
City: _____ State: _____ Contact Phone No: () _____
Employer:
Business Name: _____
Address: _____
No. _____ Street: _____ Suburb: _____ Post Code: _____
City: _____ State: _____ Business Phone No: () _____

Accident/Incident Details:

Description of Events:

Date of injury: ____ / ____ / ____ Time of Injury: ____ am. / pm.
Task/ operation undertaken at the time of the injury: _____
Physical location (area) where injury occurred: _____
Type of injury: (e.g. bruise, cut, fracture, grit in eye) _____
Part of Body Injured: (e.g. arm, torso, head) _____
Cause of injury: (what happened) _____
Treatment Given/ Action Taken: _____

Person completing this form:

Surname: _____ Given Name/s: _____ Signature: _____
Date of injury: ____ / ____ / ____ Time of Injury: ____ am. / pm.
Did the person cease work? Yes /No. }
Has a referral for further treatment been issued? Yes /No. } *(cross out whichever is not applicable)*

Form No 15: EMERGENCY CONTACTS LIST

Person	Company	Title	Phone No
James Manassa Leny Manassa	Mann Group	Directors	0417 297 223
Leny Manassa	Mann Group	Project Manager	0417 658 688
Lee Ngaropo	Mann Group	Foreman	0425 367 596
Fire, Ambulance, Police			000
Emergency Mobile No			112
Hospital			
Power Authority	Integral Energy		
Gas Authority	AGL		
Poisons	Poisons Info Centre		
State Emergency Service	SES		

Form No 16: Accident Investigation Report

NOTE: A separate form should be completed for each person injured.

This investigation is aimed at identifying causes, not attributing blame. All investigating personnel should be trained in investigation techniques.

Reference No. _____ Injury Damage Near Miss

Project: _____

Personal Details

Surname

First Name

Other Initials

Date of Birth
 Day Month Year

Gender
 M/F Preferred Language Contact No.

Occupation/Job Title & Details

Description of occupation or job title Occupation/job Day Month Year

Main tasks performed Training provided:

Induction.

4. Time & Date of Damage/Acc/Near Miss

am/pm
 Day Month Year

Time & Date Report Received

am/pm
 Day Month Year

5. Accident Results

- Fatal Hospital inpatient Doctor only
 First aid only Property damage Nil (injury/damage)

Nature of injury, disease or damage:

Location of injury, disease or damage:

Nature

Nature

6. Outcome (Questions to be answered, as information becomes available)

Rehabilitation Date of Resumption

- Not Required Short-term alternate duties
 Required Permanent alternate duties
 Normal duties

Total number of days lost. Day Month Year

Government report completed and sent.

Investigation undertaken.

7. Description of Incident (include any particular chemical, product, process equipment involved)

What was the worker doing at the time?

Name/s of witnesses	Signature of worker	Date:

Mechanism of injury Code

How exactly was the injury, disease or damage sustained?

Breakdown agency Code

What happened? (undesired event)

Reconstruct the sequence of events that led to the undesired event.

1.	4.
2.	5.
3.	6.

List contributing factors

Investigating

Person:

Name Position Signature

Date investigation conducted:

Day Month Year

9. Corrective Action Undertaken:

Estimated Cost of Incident: \$	Estimated Cost of Correction: \$
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10. Manager's Comments: (manager, employer or Principal Contractor to sign and date)

Signature:	Date:
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11. Safety Coordinator's Comments: (sign and date)

Signature:	Date:
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Form No 17: ITP		Contract:		Quality System: <i>AS/NZ ISO9001:1994</i>				
Activity:		Project No:		ITP No:				
Location or Grid Ref:		Client:		Approved By: _____ Date: _____				
LOT/LVL NO:		Works Complete & Conforming:		Author: _____ Date: _____				
Date Lot Completed:		Signature:		Other Records / Comments				
No	Activity	Test Method	Test By	Conformance Criteria	Frequency of Test	Point Type	Authorisation/Date <i>Initial</i>	Date
1								
2								
3								
4								
5								
6								
7								
8								

I _____ (Print Name) of _____ (Client Company Name) certify that the Sub-Contractor has completed all contract works in the Area/Lot number stated on this ITP in accordance with the Sub Contract Conditions & Scope of Works. I hereby as the clients authorised Signature: _____ Date: _____ representative now re-claim possession of the Area/Lot number stated above on this ITP.

TO BE AUTHORISED BY CLIENT PRIOR FOR AREA/LOT HANDOVER

Symbol	Legend	Symbol	Legend	Symbol	Legend	Symbol	Legend	Symbol	Legend
SM	Systems Manager	D	Designer Inspection	L	Leading Hand	Rev. No.	Amendment	Date	Approved
E	Site/Project Engineer	H	Mandatory Hold Point until Approved	V	Verification				
F	Foreman/Supervisor	W	Option given to inspect	SO	Set-Out				
S	Surveyor	A	Advise Designer 1 day prior to witness point	C	Client				
G	Geotech Engineer								
X	Subcontract Inspection								

**PROJECT:
Form No 18: HOLD POINT RELEASE FORM**

HOLD POINT DESCRIPTION	
CRITERIA FOR RELEASE	AREA/LOT
SATISFACTION OF CRITERIA FOR RELEASE OF HOLD POINT	

RECOMMENDATION FOR RELEASE OF HOLD POINT
I _____ of _____ hereby certify that the conditions in specification for the release of the above Hold Point have been satisfied and release is now recommended
Signed _____ Date _____ / _____ / _____

Please Attach Additional Certification Documentation along with this Hold Point Release Form to the Completed ITP.

Form No 20: SITE INDUCTION

1. Introduction of OHS, First Aid representative.
2. Location of all on-site amenities, include first aid room, toilets, lunch rooms, change rooms, site office, etc.
3. Location/arrangement for car parking
4. All personnel to fully comply with Occupational Health & Safety Manual requirement for Risk Assessment prior to any works commencing.
5. Safe Work Method Statements to be reviewed and any risks identified and assessed prior to any works commencing.
6. Location of emergency/evacuation assembly area.
7. Nominated assembly Marshall – _____
8. Hours of work on site are between 7:00am to 5:00pm Monday to Friday. Saturdays 8:00am to 3:30pm or unless approved by the client. Noise respite Mon to Fri 12:00 to 1:00.
9. Hard Hat Mann Group / Safety boots / reflective vest, to be worn at all times. All other PPCE to be worn as necessary. (i.e. eye protection, dust masks etc..)
10. Maintain good house keeping at all times.
11. All power tools and leads to be tagged on a monthly basis.
12. No smoking permitted inside any site buildings.
13. Alcohol and drugs strictly forbidden on site and are not to be consumed during working hours. Offenders will be expelled from site immediately.
14. Stealing will not be tolerated on site. Any offenders will be handed over to police.
15. Radios are not permitted in any work areas.
16. Review of delivery and hoisting procedures.
17. Any site personnel breaching site safety requirements will be:
 - a. On the first occasion, issued with a written Non-Conformance Notice.
 - b. On the second occasion, offender will be required to cease work and attend a review meeting with the Safety Officer covering Work Method Statements and all on-site safety requirements.
18. Poor health issues will be removed off site.

Form No 22: CORPORATE RISK ASSESSMENT & ACTION LIST

Project: Ribbon Project

Date: 23/01/2013

Major Work Activity	Potential Hazards Identified for the Activity	Activity Risk Score	Job Safety Analysis is Required for any activity that is a Class 1 or 2 Risk	JSA Name

Form No 23: SAFE WORK METHOD STATEMENT DEMOLITION

Project: Total Building Demolition
Project Manager: Leny Manassa
Project Address: Ribbon Project (old IMAX) Darling Harbour

Description of work activity to be undertaken:

Demolition of IMAX, Darling Harbour, generally involving the following deliverables.

- Scaffold protection to all elevations of the building.
- Hazmat removal (if any discovered)
- Total demolition of existing Building.

- AS 2601 - 2001 “ The Demolition of Structures”
- AS1940-1993 “Storage and Handling of Flammable and Combustible Liquids”
- WorkCover Code for Handling Hazardous Substances
- Work, Health and Safety Act 2011
- Occupational Health and Safety Act 2011
- National code of practice for Manual Handling
- National Code of Practice for the Safe use of Synthetic Fibres
- WorkCover Code of Practice for the safe use of Synthetic Mineral Fibres
- WorkCover Code of Practice Safety Line Systems.

Work Supervisors / Inspectors:

Name	Relevant qualifications
Lee Ngaropo	Unrestricted Demolition Supervisor

Specific training to be given to those executing the work:

Occupational Health and Safety Induction OHSi. (Green Card)
 Experience and Competency.
 OHS training during inductions and tool box talks.
 WorkCover NSW Competency ticket LE, LS

Person responsible for giving the above-identified training		
Name	Relevant qualifications	
Lee Ngaropo	Unrestricted Demolition Supervisor	
Persons who will or have received the above-identified training:		
Name	Employer	Date received
Plant and equipment to be used for the work:		
sledge hammers, tipper trucks, kwikcut saw, oxy set, hand saw, First Aid Kits, demolition PPCE,		
small hand tools, electric leads, mobile scaffold,		
otto bins, 4 post trolleys, electrical tools, fire Extinguishers,		
Excavator with Hydraulic Breaker & Grab Attachment, Boom Lift, Bobcat		
Inspection/ maintenance checks to be carried out on the plant and equipment to be used:		
Monthly checks on mechanically driven equipment.		
Monthly tagging of electrical equipment.		

PUBLIC AND PROPERTY PROTECTION

Prior to the commencement of the works the following will occur:

- All existing services will be checked to ascertain cut off points, availability of temporary supply and emergency shutdown points;
- Hazardous Materials Removal works will be appropriately sectioned off so as to prevent unauthorised entry of persons and tenants into work areas;
- Access to work areas will be denied to unauthorised personnel as well as placing appropriate signage along working perimeters;
- All workers will undergo a site induction and will be made clearly aware of the scope of works involved, general and site specific safety issues as well;
- All workers will be adequately equipped with the correct WorkCover approved Personal Protective Equipment;
- All engineering sign off will be provided.

GENERAL STATUTORY REQUIREMENTS

At all times during asbestos removal work, a type A or type B first aid kit will be available. This is in accordance with the Code of Practice for First Aid in the Workplace.

Any electrical equipment used on the project will be tagged monthly and all records kept in a register in accordance with WorkCover regulations.

All general Personal Protective Clothing Equipment (PPCE) will be made available for all workers. PPCE to be supplied and worn by all employees include hard hats, safety boots, eye protection, hearing protection and other more specific PPCE which will be recommended in site specific SWMS for the specialised task. All PPCE will be supplied, worn and all necessary training will be provided to those employees whom are not familiar with the proper use of PPCE. All PPCE supplied will be done so in accordance with WorkCover OHS Regulation – 2011.

SERVICES – TERMINATION & MANAGEMENT

- Services searches to be undertaken prior to excavation works;
- Services to be located by non destructive methods such as services finders, hand digging pilot holes, potholing and the like.
- Electrician/s will disconnect power in area zoned for the works;
- The Site Supervisor to be shown through checked areas of diversions or disconnections;
- Written Services sign offs to be provided to the Site Supervisor prior to works commencing.

PROCESS PROCEDURE AND JSA DEMOLITION

The following sequence is to be followed for the works at this site. The Competent Supervisor is responsible to ensure that the sequencing statement and JSA is followed. Works are to be performed in the following sequence.

SITE ESTABLISHMENT

1. Notify residence, neighbours and tenants of the impending works proceeding. (if deemed appropriate by builder)
2. Perform site inductions & establish in the site facilities (Including display of contents of the EHS Plan on notice board or in First Aid shed).
3. Temporary fencing/ hoarding to be erected to the open edge on each floor and around penetration.
4. Erect perimeter awareness tape and signage to provide demarcation for the exclusion zone to all unauthorised personnel.
5. Setup up site amenities for workers.
6. Obtain services disconnection sign offs from the services trades. (by builder)
7. Obtain temporary services (electrical and water).

HAZMAT REMOVAL (IF ANY DISCOVERED)

1. Refer to 'Procedure for Unexpected Discovery of Hazardous Materials Document'.
2. Hazmat to be removed in accordance with site specific SWMS for hazmat removal
3. Once hazardous materials have been removed and a sign off provided by hygienist, Mann Group will then proceed with the demolition of the structure as per following sequence.

DEMOLITION OF STRUCTURE

1. Perform Task Specific inductions.
2. Erect perimeter barricade tape and signage to the immediate work area as deemed necessary by competent demolition supervisor.
3. Secure all entry points to the associated work faces.
4. Services sign off to be provided by GROCON.
5. Demolition sequence as follows:
 - a) Soft strip out of Building.
 - b) Erect Tower Crane on existing crane base.
 - c) Removal of roof and associated structures.
 - d) Demolition of building (total demolition).
 - e) Material handling.
6. Soft Strip Out of Building :
 - a) Soft strip out of building is to be done mechanically utilising certified (by structural engineer) skid steer loaders and mini excavators where possible.
 - b) Remainder of strip out works are to be performed manually by personnel
 - c) All rubbish and masonry debris derived as a result of the soft strip out are to be loaded out progressively off each floor via 'proposed rubbish and masonry debris chute' in the North East corner as marked on the attached marked drawings (Drawing No. S10) (marked in green highlight).
 - d) Site specific SWEMS will be submitted prior work commencing.
7. Erect Tower Crane on existing crane base:
 - a) Existing crane base to be exposed and inspected for re – use
 - b) Tower Crane to be erected for demolition. (proposing to use Favco 1000E tower crane in order to reach radius marked in the attached drawings) (Drawing No. S10)
 - c) Site specific SWEMS will be submitted prior work commencing.
8. Removal of roof and associated structures:
 - a) Roof sheets to be removed manually by personnel working on roof.
 - b) Roof sheets to be removed, stacked and bundled ready for tower crane to lift down to ground level for progressive load out.
 - c) Structural beams/ purlins are to be removed utilising tower crane.
 - d) Beams / purlins are to be slung by crane, then personnel are to unbolt / dismantle sections and crane will lift down to ground level for progressive load out.

- e) Same process is to be exercised for roofs protruding from building line.
 - f) Site specific SWEMS will be submitted prior work commencing.
9. Demolition of building (total demolition):
- a) Upon completion of strip out and removal / demolition of roof structure, demolition of building will proceed.
 - b) Refer to attached marked drawings.
 - c) Demolition is to start from the top floor (level 7) and each floor is to be completely demolished before proceeding to the floor below.
 - d) All masonry walls in the Eastern and Western Cores (as marked in orange highlight on attached drawings) are to be demolished mechanically utilising certified excavator - conventionally.
 - e) All walls will be demolished inwards (into building line) utilising bucket / ripper attachments. As walls are being demolished, certified skid steer loader is to traverse masonry debris to proposed masonry debris chute as per attached marked drawings.
 - f) Eastern and Western core walls are to be demolished to slab level before proceeding with walls to Southern and Northern elevations as well as slab demolition.
 - g) All reinforced concrete walls to the Southern elevation (as marked in green highlight on attached drawings) are to be saw cut into panels of approx. 6 metres x 1.2 metres (depending on tower cranes lifting capacities at variable radius) and lowered down to ground floor with tower crane for progressive load out .
 - h) All slabs (as marked in pink highlight on attached drawings) are to be demolished mechanically utilising certified excavator with hydraulic breaker attachment - conventionally.
 - i) All debris are to fall to floor below where the material will be traversed to designated load out chute as marked in attached drawings.
 - j) Upon completion of each floor, machines will be craned down to floor below.
 - k) The above process is to be repeated for each floor until level 2 is reached.
 - l) Once level 2 has been reached, the remainder of the demolition will be carried out utilising 30 – 40 tonne excavators with hydraulic breaker / and or grab and bucket attachments working off Ground Level. This process will include the demolition of the Ultra Floor.
 - m) Excavator will reach up to top of Ultra Floor and break up concrete and work East to West and working down to Ground.
 - n) All materials are to be loaded out progressively.
 - o) Site specific SWEMS will be submitted prior work commencing.
10. Material handling:
- a) All demolition materials will be loaded from Ground Floor
 - b) Trucks to enter work area in a forward manner under instruction from authorised traffic controllers. Trucks are to enter and exit the works zone from the Eastern end.
 - c) Trucks to conduct a turn inside the work zone at the Western end.
 - d) Excavators and or Tower Crane to load trucks.

- e) Trucks to leave site in a forward manner under instructions from authorised traffic controllers.
 - f) All trucks to be tarped / strapped prior to leaving site.
 - g) Trucks to remove demolition material to designated recycling facilities.
 - h) Site specific SWEMS will be submitted prior work commencing.
11. If at any time the works/sequencing is to change or methodology requires altering, all works are to cease and SWMS is to be amended and Personnel will be re-inducted as per amendments by tool box talk.
12. All demolition will be staged, this staging works will also be accompanied by a toolbox talk before each stage commences other than the first stage.
13. **NOTE:** All barricade tape & signage is to remain erected once building has been demolished and debris has been cleaned.
14. Demobilise from work front.

JOB SAFETY ANALYSIS

#	ACTIVITY & HAZARD	EFFECT OF HAZARD	RISK RATING	CONTROLS	RESPONSIBLE PERSON TO IMPLEMENT CONTROL	RESIDUAL RISK RATING
1	General Planning	<ul style="list-style-type: none"> ➤ Electrical hazards ➤ Access/Egress ➤ Falls of people 	2	<ul style="list-style-type: none"> • Clear access tracks within the works zone. • Ensure all electrical equipment is tagged and certified. • Maintain all evacuation points clear and free of obstructions. • Obtain services sign off's from builder. • Grocon to install B class hoarding 	Demolition Supervisor Listed Above	6
2	Demolition by mechanical means and by hand at height from EWP or scaffold.	<ul style="list-style-type: none"> ➤ Objects falling on head, shoulders or feet. 	1	<ul style="list-style-type: none"> • Wear hard hats safety boots and safety vests at all times. • Bunt demolition areas affected by demolition and erect demolition awareness signs. • Provide a spotter for public and construction workers where demolition material is falling. • All personnel always to work in a minimum of two persons. • Never stand beneath slug load. 	Demolition Supervisor Listed Above	6
3	Falling from unprotected edges exceeding 1.2m.	<ul style="list-style-type: none"> ➤ Death, sprains and injuries. ➤ Slips trips and falls. 	1	<p>All MANN GROUP personnel subject to a fall greater than 1.2m shall in order of preference be protected by the following means:</p> <ol style="list-style-type: none"> 1. Be confident of the works adjacent to the edge. 2. Be secured behind a structural barrier with a minimum of a top rail mid rail and kick board. 3. Be secured in a floor arrest system including but not limited to approved harnesses, lanyards, inertia reels and static lines rigged in accordance with WorkCover Codes of Practice. 	Demolition Supervisor Listed Above	6
4	Hot Works during cutting procedures	<ul style="list-style-type: none"> ➤ Fire of Combustible materials 	1	<ul style="list-style-type: none"> • Complete a Hot Work Permit. • Always have a fire extinguisher available during cutting procedures. • Perform all cutting using cold hydraulic techniques if possible. • Ensure that all oxy sets are fitted with flash back arrestors. • Ensure that all cuts are smoldered until all smoke ceases to dissipate. If required a spotter must inspect all cuts until smoke stops. • Ensure that all flammable material is not present within the facility of the cut. • Ensure that all tanks (underground and above) are purged prior to demolition and cutting procedures. 	Demolition Supervisor Listed Above	6

#	ACTIVITY & HAZARD	EFFECT OF HAZARD	RISK RATING	CONTROLS	RESPONSIBLE PERSON TO IMPLEMENT CONTROL	RESIDUAL RISK RATING
5	During Demolition.	➤ Struck by load or machine element.	1	<ul style="list-style-type: none"> • Ensure that all machinery on site are fitted with amber beacons and reversing beepers. • Ensure that all persons on site wear high visibility vests. • Ensure that all operators are ticketed and competent with the machine. • Induct all spotters to not come within reachable distance from the machine. • Machine operators to obtain a two way radio for contact prior to being approached by people on the ground. • Operators to remain vigilant. • All machinery to be fitted with mirrors. • All machinery to be fitted with safety stickers. • All machinery to be switched off during refueling. • All persons under no circumstance to walk or be positioned beneath a slung load. • No visitors are to enter the site unless escorted by the Demolition supervisor. 	Demolition Supervisor Listed Above	6
6	Struck by site vehicles	➤ Death by collision.	1	<ul style="list-style-type: none"> • Obtain copy of site traffic management plan. • All persons on site to wear high visibility vests. • All workers to walk along marked ingress/egress passages. • Remain vigilant. 	Demolition Supervisor Listed Above	6
7	Removal of glazing.	<ul style="list-style-type: none"> ➤ Lacerations to personnel. ➤ Glass fragments into personnels eyes. 	2	<ul style="list-style-type: none"> • Personnel are to wear all PPE including gloves, safety glasses, wrist bands and hard hats. • Personnel are to utilise glass suckers to carry glass panels. • Glass panels are to be loaded out as soon as they are removed to prevent any personnel from cutting themselves on glass stockpiles. 	Demolition Supervisor Listed Above	6
8	Removal of floor carpet.	➤ Repetitive strain injury.	4	<ul style="list-style-type: none"> • Personnel are to work in pairs. • Personnel are to bend knees whilst pulling up carpets. • Carpets are to be cut down into manageable size pieces. • Personnel are to share work load. 	Demolition Supervisor Listed Above	6

#	ACTIVITY & HAZARD	EFFECT OF HAZARD	RISK RATING	CONTROLS	RESPONSIBLE PERSON TO IMPLEMENT CONTROL	RESIDUAL RISK RATING
9	Ceiling removal.	<ul style="list-style-type: none"> ➤ Objects falling on head, shoulders or feet. ➤ Electrocutation of personnel. ➤ Breaking of fire sprinklers. 	2	<ul style="list-style-type: none"> • Wear hard hats, safety boots and safety vests at all times. • All appropriate PPE to be worn where necessary • Bunt demolition areas affected by demolition and erect demolition awareness signs. • Provide a spotter All personnel always to work in a minimum of two persons. • Personnel operating scissor lifts shall be deemed competent by ticketed operator. • All debris to be loaded out as soon as practically possible • All services sign-offs to be issued to MG prior to commencement of work. • Heyday Group Staff are to be present as MG personnel strip ceiling. • If any wires are suspicious of being “live” MG personnel are to immediately notify Heyday Group staff. • MG personnel are to treat all services as “live.” • In the event of breaking of fire sprinkler, Mann group is to notify the builder to commence the procedure implemented including wet vacuums are to be on hand & ready to vacuum water. • MG to have wheelie bins on hand to put under fire sprinkler to help contain spill. • All relevant authorities are to be notified in the event of sprinkler breakage. 	Demolition Supervisor Listed Above	6
10	Protection of adjacent properties.	<ul style="list-style-type: none"> ➤ Materials breaching work zones and entering occupied public areas. 	1	<ul style="list-style-type: none"> • Ensure that a 1 metre no access machine zone is enforced (bunting tape, spotter) • Excavators to start off live walls and work away so that machine is not within range of wall • Excavator to demolish building within it’s constraints (push all materials into building footprint) 	Demolition Supervisor Listed Above	6
11	Working around moving plant and equipment	<ul style="list-style-type: none"> ➤ Struck by moving plant ➤ Struck by excavator ➤ Struck by bobcat ➤ Struck by scissor lift. 	2 2 2 2	<ul style="list-style-type: none"> • Exclusion zones are to be set up as deemed appropriate by competent demolition supervisor. • Wear high visibility clothing • Ensure that plant are fitted with approved flashing lighting. • Machinery to be fitted with reverse beepers • Maintain spotters at all times • Utilise correct PPE, such as hard hat, high vis vest, safety boots, gloves, glasses hearing protection where required • All machine operators to be competent & qualified. • Ensure any personnel entering work zone are to make machine operators aware of their presence. • Ensure all log books are filled out prior to use of machinery. • Ensure all machines are safe and worthy of use prior to use. 	Demolition Supervisor Listed Above	6

#	ACTIVITY & HAZARD	EFFECT OF HAZARD	RISK RATING	CONTROLS	RESPONSIBLE PERSON TO IMPLEMENT CONTROL	RESIDUAL RISK RATING
12	During demolition of masonry utilising excavator with hydraulic breaker attachment.	➤ Objects falling on head, shoulders or feet.	1	<ul style="list-style-type: none"> Wear hard hats, safety boots, safety glasses and safety vests at all times. Bunt demolition areas affected by demolition and erect demolition awareness signs. Provide a spotter All personnel always to work in a minimum of two persons. Floors below work area also to be bunted off and delineated with signage. Excavator operator to be ticketed and competent. Ensure that daily inspections/checks are carried out on machines prior to their use. 	Demolition Supervisor Listed Above	6
13	Demolition of all structures.	➤ Electrocution of personnel.	1	<ul style="list-style-type: none"> Obtain disconnection signs offs. Ensure all ground searches have been performed by the client. Ensure all electrical services are physically cut at the perimeter of the works zone. All leads to run through RCD boxes fitted with surge protection safety switches. Ensure all water is kept well away from electrical conductors. Hang all leads with isolated hooks off the ground. Do not run leads in excess of 30m. Obtain services searches and dig pilot holes to locate underground services. 	Demolition Supervisor Listed Above	6
14	Noise and dust during demolition procedures.	<ul style="list-style-type: none"> ➤ Inhalation of dust ➤ Over exposure to loud noises/sounds. 	2 2	<ul style="list-style-type: none"> All personnel to wear P2 dust masks when removing ceiling tiles and grid. Spotter to utilize hose to suppress dust emerging as a result of excavator breaking concrete. All personnel working within close proximity to machines to be wearing hearing protection. Machine operators to be wearing hearing protection whilst operating machinery. 	Demolition Supervisor Listed Above	6
15	Whilst trucks accessing & egressing work areas.	➤ Hitting/striking pedestrians	1	<ul style="list-style-type: none"> MG to provide traffic control whilst trucks entering or exiting through existing gates. Gates to remain closed at all times unless trucks entering or exiting. Signage to be placed at entrance of work zone. All trucks to obey by traffic management plan, and RTA road rules upon entering and egressing from site. 	Demolition Supervisor Listed Above	6
16	Working on suspended slab with plant and equipment.	➤ Collapse of suspended due to over loading	1	<ul style="list-style-type: none"> Ensure to receive SWL of suspended slab from structural engineer. Ensure all loading is identified to the work area with high vis. Spray marking paint. All operators are to be aware of safe maneuvering path for plant, equipment, stock pile zone and load out area. 	Demolition Supervisor listed above.	6

#	ACTIVITY & HAZARD	EFFECT OF HAZARD	RISK RATING	CONTROL/S	RESPONSIBLE PERSON TO IMPLEMENT CONTROL	RESIDUAL RISK RATING
17	Whilst cutting with wet saw	<ul style="list-style-type: none"> ➤ Injury to personnel ➤ Slurry spray. ➤ Slip, trip, fall on slurry. 	<p>1</p> <p>3</p> <p>3</p>	<ul style="list-style-type: none"> • Personnel are to be confident and competent in the use of wet saw. • Personnel are to work in exclusion zone. • Personnel are to remain vigilant whilst working in exclusion zone. • Personnel are to clean up slurry immediately. • Personnel are to be wearing safety glasses, hard hats, safety boots, and hearing protection. 	WorkCover Approved Demolition Supervisor	6

MANN GROUP SUPERVISORS INSTRUCTIONS TO EMPLOYEES /EMPLOYEE CONSULTATION – COMMENTS MADE

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**SUPERVISORS
NAME**

SIGNATURE

DATE

APPENDIX 1: RETURN TO WORK POLICY



Corporate Injury Management & Return to Work Policy

Mann Group is committed to assisting employees who have incurred a work-related injury or illness to return to work quickly and safely as possible, and to be able to stay at work.

We will accomplish this by:

- Assigning meaningful duties to the injured employee within their medical abilities until they can safely return to their normal duties;
- Encouraging the injured person to actively participate and cooperate in this process, within their medical constraints;
- Facilitating the injured person to access rehabilitation services where a return to preinjured duties is not possible; and
- Treating medical or other information regarding the injury with the utmost confidentiality, in compliance with the *Privacy Amendment (Private Sector) Act 2000* and in accordance with the company's privacy policy.



James Manassa
Managing Director
Mann Group

16th April 2012

APPENDIX 2: COMPANY OHS POLICY STATEMENT

1) COMPANY OHS POLICY STATEMENT

Mann Group NSW's commitment towards the Health, Safety and Welfare of its employees is of extreme importance within its operations. The company recognizes and accepts its responsibility towards ensuring the Health, Safety and Welfare of all their employees.

Resources commensurate with the company's emphasis towards Occupational Health and Safety have been made available to provide and maintain for the physical and psychological well being of all employees.

The management will demonstrate through policy development that health and safety receives priority attention on a continual basis.

Managers, Supervisors and Foremen will be responsible from the implementation and promulgation of all matters dealing with the health and safety of employees under their control.

All employees will be expected to demonstrate willingness to embrace the concept of safe work practices and a safe working environment. Employees will be required to work in a healthy and safe manner whilst discouraging others working in an unsafe manner.

Education/ training of all employees on Health and Safety issues is considered to be natural course of employment and all employees will be encouraged to embrace this concept.

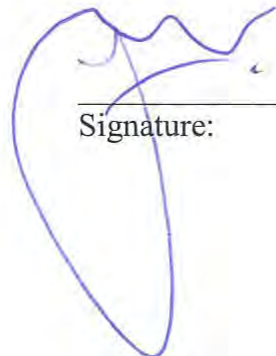
I strongly endorse the implementation of Health and Safety committees on site and fully expect these bodies to be a major influence in the prevention of occupational illness and injury through the process of joint consultation.

Acknowledgment actively encourages the right of any employee to report situation with which concerns are raised as to their health and safety. A collaboration process will be used to ensure all employees are at ease with their work environment.

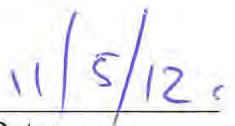
This policy is but an outline of the commitment in which this company places Occupational Health and Safety within the workplace, but this commitment from all concerned is necessary if the Health and Safety of all is to be achieved and maintained.

James Manassa

Managing Director Name:



Signature:



Date:

APPENDIX 3: COMPANY ENVIRONMENTAL POLICY STATEMENT

2) COMPANY ENVIRONMENTAL POLICY STATEMENT

Mann Group NSW's commitment towards the state of the Environment. Health, Safety and Welfare of its employees is of extreme importance within its operations. The company recognizes and accepts its responsibility towards ensuring the Health, Safety and Welfare of all their employees.

High level Management will demonstrate through policy development that health and well being of all Flora and Fauna and their habitat Mann Group are maintained and preserved throughout the life cycle of the project.

Managers, Supervisors and Foremen will be responsible from the implementation and promotion of all facets of Environmental preservation matters. All employees have an obligation and must demonstrate willingness to embrace the concept of Environmental preservation.

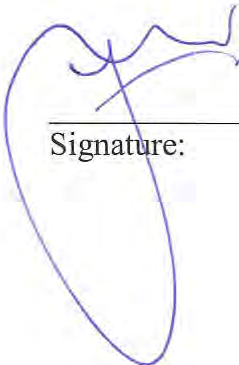
Education/ training of all employees on Environmental issues and control measures considered to be natural course of employment and all employees will be encouraged to embrace this concept.

Mann Group acknowledges and actively encourages the right of any employee to report situation with which concerns are raised as to the environmental preservation and maintenance. A collaborative process will be used to ensure all employees are confident with their work practices to not inadvertently effect environmental degradation.

This policy is but an outline of the commitment in which this company places on Environmental preservation within the workplace, but this commitment from all concerned is necessary if the Environmental Management of all is to be achieved and maintained.

James Manassa

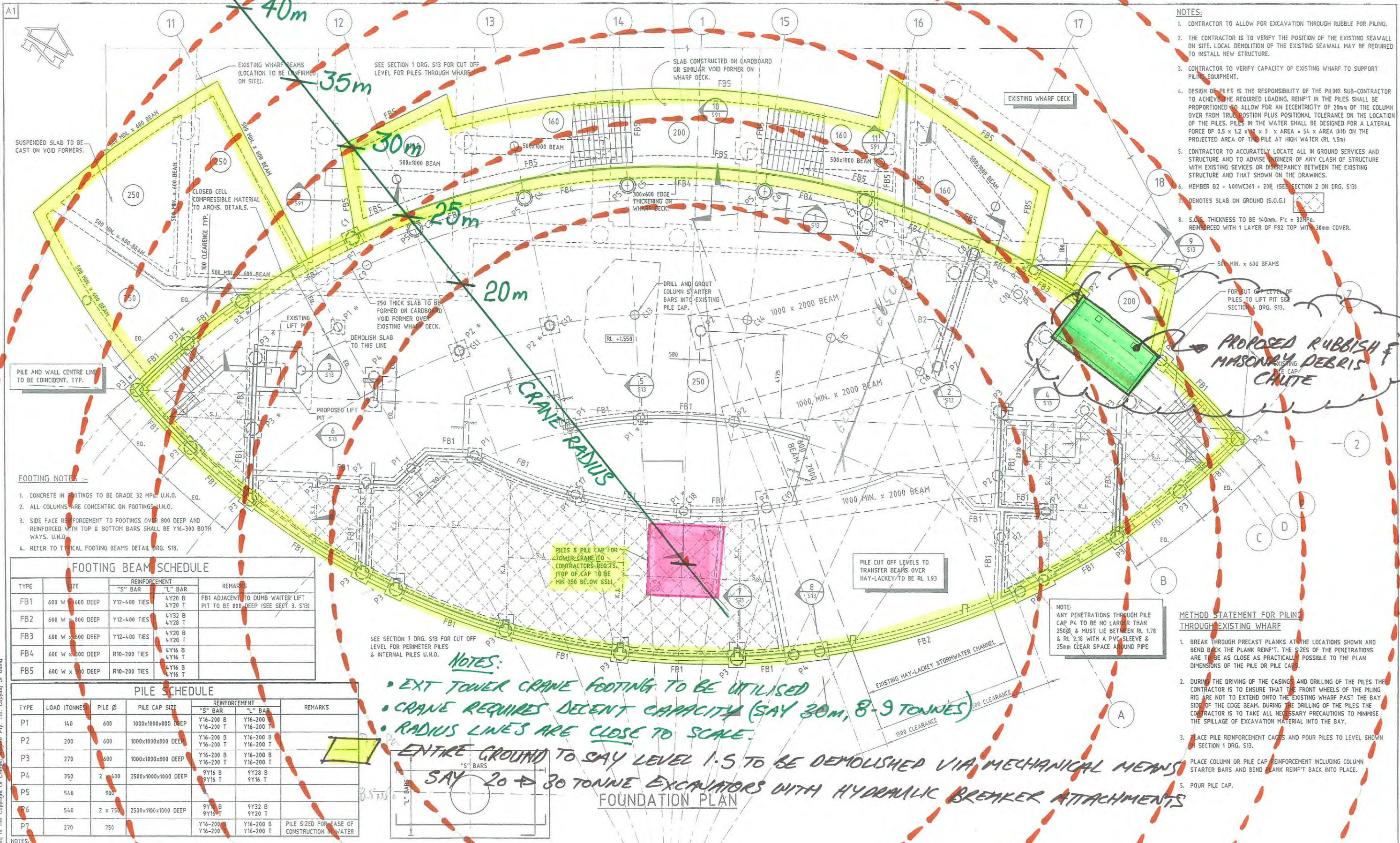
Managing Director Name:



Signature:

11/5/12

Date:



- NOTES:**
- CONTRACTOR TO ALLOW FOR EXCAVATION THROUGH RUBBLE FOR PILING.
 - THE CONTRACTOR IS TO VERIFY THE POSITION OF THE EXISTING SEAWALL ON SITE. LOCAL DEMOLITION OF THE EXISTING SEAWALL MAY BE REQUIRED TO INSTALL NEW STRUCTURE.
 - CONTRACTOR TO VERIFY CAPACITY OF EXISTING WHARF TO SUPPORT PILING EQUIPMENT.
 - DESIGN OF PILES IS THE RESPONSIBILITY OF THE PILING SUB-CONTRACTOR TO ACHIEVE THE REQUIRED LOADING. REINFT IN THE PILES SHALL BE PROPORTIONED TO ALLOW FOR AN ECCENTRICITY OF 20mm OF THE COLUMN OVER FROM TRUE POSITION PLUS POSITIONAL TOLERANCE ON THE LOCATION OF THE PILES. PILES IN THE WATER SHALL BE DESIGNED FOR A LATERAL FORCE OF $0.5 \times 1.2 \times 10 \times 3 \times \text{AREA} = 54 \times \text{AREA}$ (kN) ON THE PROJECTED AREA OF THE PILE AT HIGH WATER (RL 1.5m)
 - CONTRACTOR TO ACCURATELY LOCATE ALL IN GROUND SERVICES AND STRUCTURE AND TO ADVISE ENGINEER OF ANY CLASH OF STRUCTURE WITH EXISTING SERVICES OR DISCREPANCY BETWEEN THE EXISTING STRUCTURE AND THAT SHOWN ON THE DRAWINGS.
 - MEMBER B2 = 400W361 + 20R (SEE SECTION 2 ON DRG. S13)
 - DENOTES SLAB ON GROUND (S.O.G.)
 - S.O.G. THICKNESS TO BE 140mm. $F'c = 32\text{MPa}$. REINFORCED WITH 1 LAYER OF F82 TOP WITH 30mm COVER.

- FOOTING NOTES --**
- CONCRETE IN FOOTINGS TO BE GRADE 32 MPa U.N.O.
 - ALL COLUMNS ARE CONCENTRIC ON FOOTINGS U.N.O.
 - SIDE FACE REINFORCEMENT TO FOOTINGS OVER 800 DEEP AND REINFORCED WITH TOP & BOTTOM BARS SHALL BE Y16-300 BOTH WAYS. U.N.O.
 - REFER TO TYPICAL FOOTING BEAMS DETAIL DRG. S13.

FOOTING BEAM SCHEDULE

TYPE	SIZE	REINFORCEMENT		REMARKS
		"S" BAR	"L" BAR	
FB1	600 W x 600 DEEP	Y12-400 TIES	4Y20 B 4Y20 T	FB1 ADJACENT TO DUMB WAITER LIFT PIT TO BE 800 DEEP (SEE SECT 3. S13)
FB2	600 W x 800 DEEP	Y12-400 TIES	4Y32 B 4Y28 T	
FB3	600 W x 600 DEEP	Y12-400 TIES	4Y20 B 4Y20 T	
FB4	600 W x 800 DEEP	R10-200 TIES	4Y16 B 4Y16 T	
FB5	600 W x 800 DEEP	R10-200 TIES	4Y16 B 4Y16 T	

PILE SCHEDULE

TYPE	LOAD (TONNES)	PILE Ø	PILE CAP SIZE	REINFORCEMENT		REMARKS
				"S" BAR	"L" BAR	
P1	140	600	1000x1000x800 DEEP	Y16-200 B Y16-200 T	Y16-200 B Y16-200 T	
P2	200	600	1000x1000x800 DEEP	Y16-200 B Y16-200 T	Y16-200 B Y16-200 T	
P3	270	600	1000x1000x800 DEEP	Y16-200 B Y16-200 T	Y16-200 B Y16-200 T	
P4	350	2 x 600	2500x1000x1000 DEEP	9Y16 B 9Y16 T	9Y28 B 9Y28 T	
P5	540	900				
P6	540	2 x 750	2500x1000x1000 DEEP	9Y16 B 9Y16 T	9Y32 B 9Y20 T	
P7	270	750		Y16-200 B Y16-200 T	Y16-200 B Y16-200 T	PILE SIZED FOR EASE OF CONSTRUCTION IN WATER

- NOTES:**
- PILE CAP SIZES IN SCHEDULE APPLY WHEN NOT SHOWN ON PLAN.
 - PILES MARKED * TO HAVE CUT OFF LEVEL AS PER SECTION 5 DRG. S13.
 - PILE CAPS UNDER SETDOWN AREAS OF SLAB TO HAVE 30mm LESS DEPTH THAN OTHERS.

NOTES:

- EXT TOWER CRANE FOOTING TO BE UTILISED
- CRANE REQUIRES DECENT CAPACITY (SAY 30m, 8-9 TONNES)
- RADIUS LINES ARE CLOSE TO SCALE.
- ENTIRE GROUND TO SAY LEVEL 1.5 TO BE DEMOLISHED VIA MECHANICAL MEANS SAY 20 & 30 TONNE EXCAVATORS WITH HYDRAULIC BREAKER ATTACHMENTS



No.	Date	Revision Details	Verified	Approved
M	12.08.96	LIFT LOBBY ADDED		
L	21.05.96	LIFT PIT REVISED		
K	10.05.96	ENTRY AREA REVISED & ISSUED FOR CONSTRUCTION.		
J	18.04.96	ISSUED FOR APPROVAL OF ENTRY AREA COLUMN AND BEAMS (CHANGED POSITION)		
H	12.04.96	ISSUED FOR APPROVAL OF ENTRY AREA		
G	02.02.96	NOTE & SLAB THK. & "HOLD" ADDED.		
F	11.01.96	SETDOWN'S ADDED		
E	05.01.96	SETDOWN'S REMOVED, SECTION 2 ADJUSTED, FB3 ADJUSTED.		
D	15.11.95	S.O.G. JOINTS, FB4 ON EXISTING WHARF & NOTE ON P4 ADDED.		
N	24.09.96	AS BUILT		
M	11.07.96	NEW SUSPENDED SLAB ADDED		

Drawn: T.T. Signed: T.T. Date: 27.10.95
 Designed: G.R.F. Signed: G.R.F. Date: 27.10.95
 Verified: K.G.D. Signed: K.G.D. Date: 27.10.95
 Approved: J.F.W. Signed: J.F.W. Date: 27.10.95

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Project: **IMAX THEATRE DARLING HARBOUR**

Drawing Title: **LEVEL 1 CONCRETE PROFILE & FOOTING PLAN**

Scale: 1:100

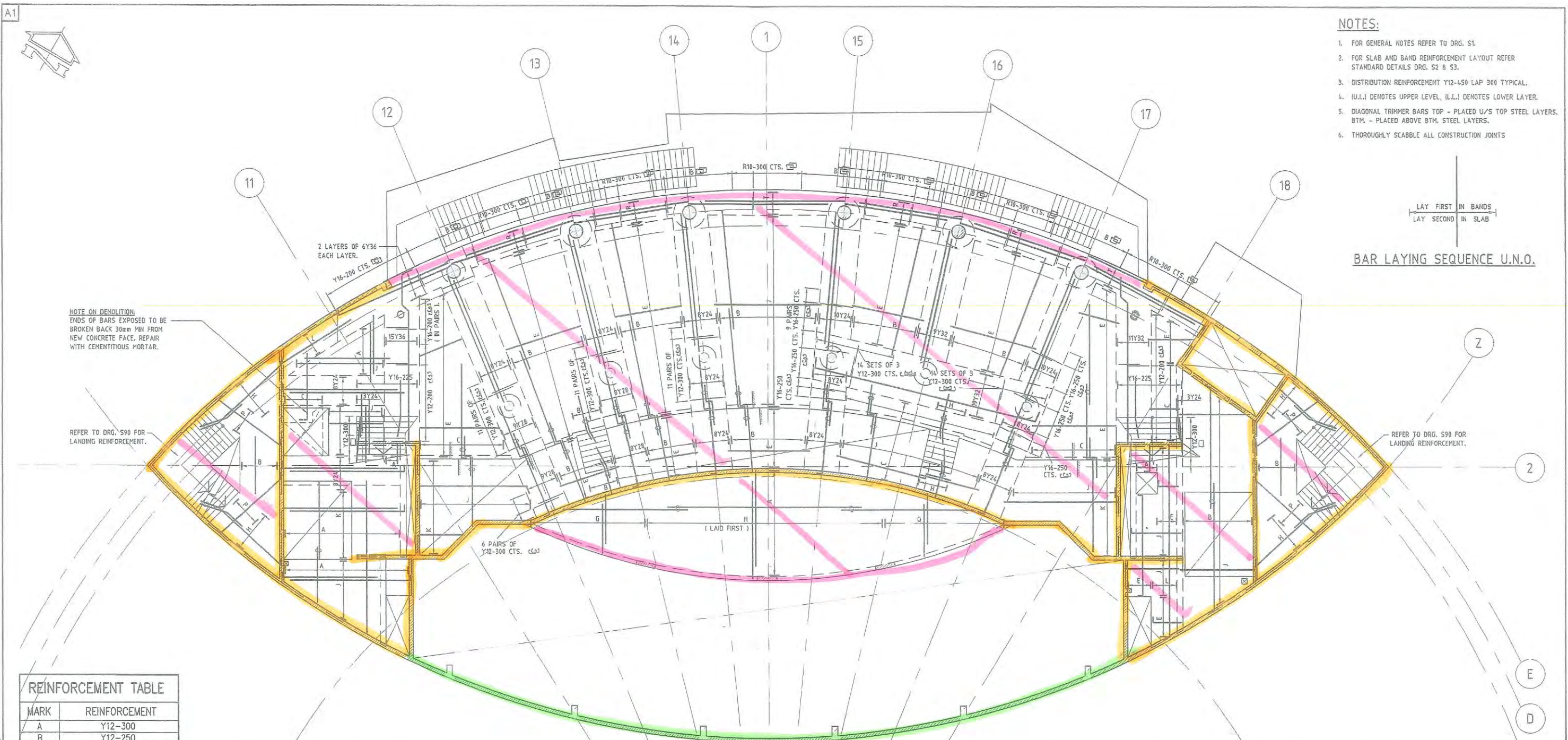
CW.Project No: **3536**

Drawing No: **S10**

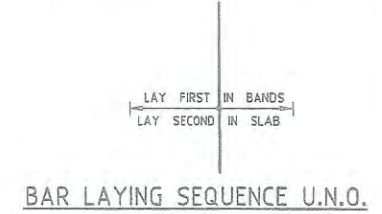
Revision: **N**

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AS BUILT



- NOTES:**
- FOR GENERAL NOTES REFER TO DRG. S1.
 - FOR SLAB AND BAND REINFORCEMENT LAYOUT REFER STANDARD DETAILS DRG. S2 & S3.
 - DISTRIBUTION REINFORCEMENT Y12-450 LAP 300 TYPICAL.
 - (U.L.) DENOTES UPPER LEVEL, (L.L.) DENOTES LOWER LEVEL.
 - DIAGONAL TRIMMER BARS TOP - PLACED U/S TOP STEEL LAYERS. BTM. - PLACED ABOVE BTM. STEEL LAYERS.
 - THOROUGHLY SCABBLE ALL CONSTRUCTION JOINTS



NOTE ON DEMOLITION:
ENDS OF BARS EXPOSED TO BE BROKEN BACK 30mm MIN FROM NEW CONCRETE FACE. REPAIR WITH CEMENTITIOUS MORTAR.

REFER TO DRG. S90 FOR LANDING REINFORCEMENT.

REFER TO DRG. S90 FOR LANDING REINFORCEMENT.

REINFORCEMENT TABLE	
MARK	REINFORCEMENT
A	Y12-300
B	Y12-250
C	Y12-200
D	Y12-175
E	Y12-150
F	Y16-350
G	Y16-300
H	Y16-250
J	Y16-200
K	Y16-175
L	Y16-150
M	Y16-100
N	Y20-300
P	Y20-250
R	Y20-200
S	Y20-175
T	Y20-150
V	Y20-100
W	Y24-300
X	Y24-250
Y	Y24-200
Z	Y24-150

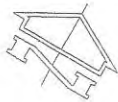
- SLAB AREAS TO BE HAMMERED WITH 8-12 TONNE HYDRAULIC BREAKER ATTACHMENT TO EXCAVATORS
- APPROX WALL PANELS OF SIZE 6m x 1.2m TO BE SAW CUT AND LOWERED DOWN BY TOWER CRANE.
- RC WALLS TO BE HAMMERED DOWN BY EXCAVATORS

LEVEL 2 BOTTOM REINFORCEMENT PLAN.

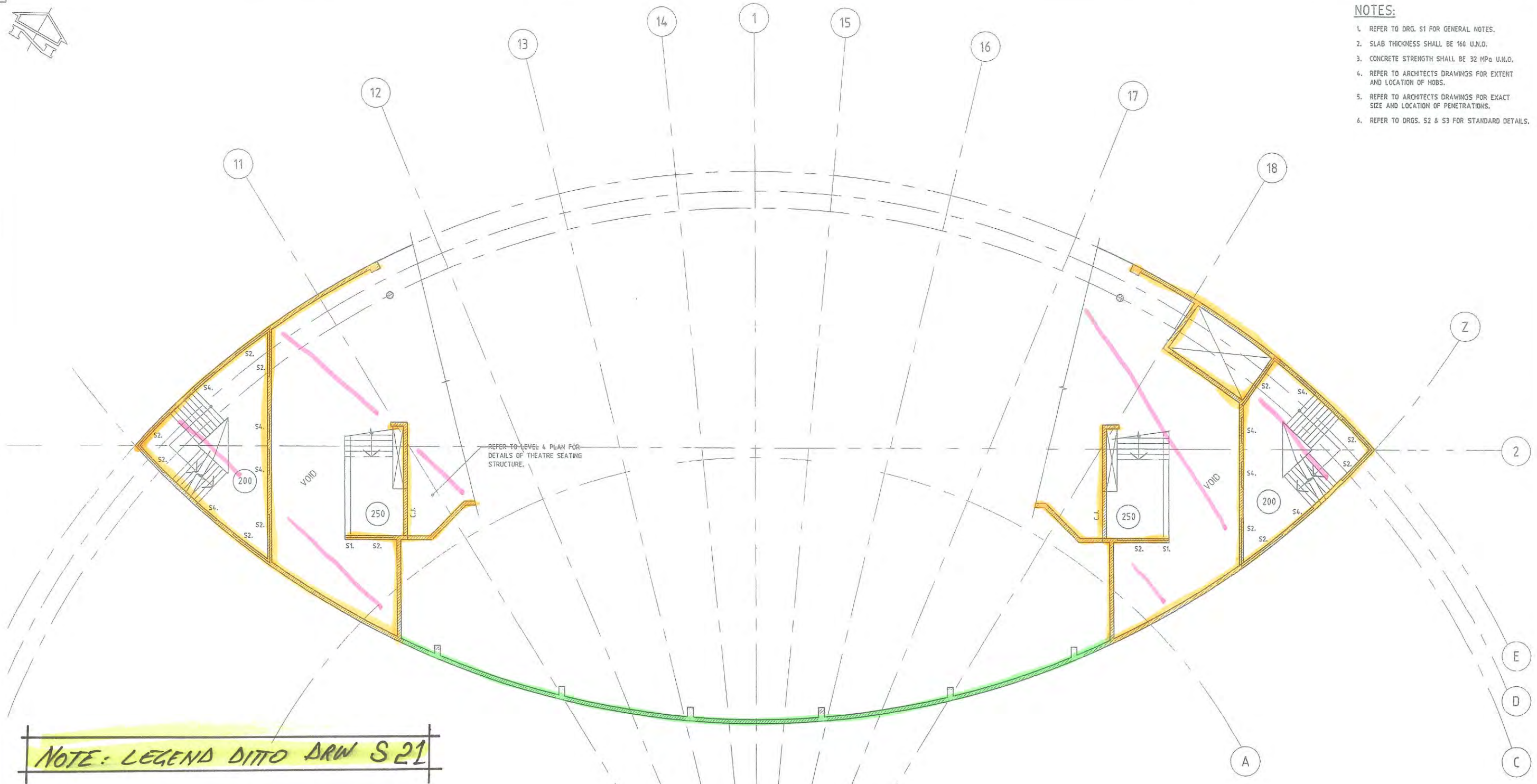
AS BUILT

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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>No.</td><td>Date</td><td>Revision Details</td><td>Verified</td><td>Approved</td></tr> <tr><td>D</td><td>24.09.96</td><td>AS BUILT</td><td></td><td></td></tr> <tr><td>C</td><td>21.05.96</td><td>PENETRATION REVISED AND DEMOLITION NOTE ADDED.</td><td></td><td></td></tr> <tr><td>B</td><td>14.05.96</td><td>ADDITIONAL REQ. NOTED. "HOLD REMOVED".</td><td></td><td></td></tr> <tr><td>A</td><td>05.05.96</td><td>REINF. TIES & STIRRUPS ALTERED. ISSUED FOR CONSTRUCTION.</td><td></td><td></td></tr> <tr><td>1</td><td>02.02.96</td><td>ISSUED FOR PROCUREMENT OF REINFORCEMENT.</td><td></td><td></td></tr> </table>	No.	Date	Revision Details	Verified	Approved	D	24.09.96	AS BUILT			C	21.05.96	PENETRATION REVISED AND DEMOLITION NOTE ADDED.			B	14.05.96	ADDITIONAL REQ. NOTED. "HOLD REMOVED".			A	05.05.96	REINF. TIES & STIRRUPS ALTERED. ISSUED FOR CONSTRUCTION.			1	02.02.96	ISSUED FOR PROCUREMENT OF REINFORCEMENT.			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Drawn</td><td>Signed</td><td>Date</td></tr> <tr><td>M.G.M.</td><td>M.G.M.</td><td>05.02.96</td></tr> <tr><td>Designed</td><td>Signed</td><td>Date</td></tr> <tr><td>G.R.F.</td><td>G.R.F.</td><td>05.02.96</td></tr> <tr><td>Verified</td><td>Signed</td><td>Date</td></tr> <tr><td>D.H.C.</td><td>D.H.C.</td><td>05.02.96</td></tr> <tr><td>Approved</td><td>Signed</td><td>Date</td></tr> <tr><td>J.F.W.</td><td>J.F.W.</td><td>05.02.96</td></tr> </table>	Drawn	Signed	Date	M.G.M.	M.G.M.	05.02.96	Designed	Signed	Date	G.R.F.	G.R.F.	05.02.96	Verified	Signed	Date	D.H.C.	D.H.C.	05.02.96	Approved	Signed	Date	J.F.W.	J.F.W.	05.02.96	<p>Connell Wagner Engineers • Managers</p> <p>Connell Wagner Pty Ltd A.C.N. 005 438 873 116 Military Road, Neutral Bay New South Wales, Australia 2083 Telephone: (02) 9809 5599 Facsimile: (02) 9508 2044 Cod File: P:\3536\NS21.DWG Plot Date: 1122 - 15:02:96</p>	<p>Client: CINEMA + 270 Devonshire Street, Surry Hills, NSW 2010 Ph: (02) 318 0181 Fax: (02) 318 0020</p> <p>Builder: MULTIPLEX CONSTRUCTION Level 3, 1 Kent Street, Sydney NSW 2000 Ph: (02) 256 5000 Fax: (02) 256 5001</p> <p>Architect: HBO + EMTB Level 4, 151 Macquarie Street, Sydney, NSW 2000 Ph: (02) 247 2599 Fax: (02) 251 7681</p>	<p>Project: IMAX THEATRE DARLING HARBOUR</p>	<p>Drawing Title: LEVEL 2 BOTTOM REINFORCEMENT PLAN.</p> <p>Scale: 1:100</p> <p>CW.Project No. 3536</p> <p>Drawing No. S21</p> <p>Revision: D</p>
No.	Date	Revision Details	Verified	Approved																																																							
D	24.09.96	AS BUILT																																																									
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- NOTES:**
1. REFER TO DRG. S1 FOR GENERAL NOTES.
 2. SLAB THICKNESS SHALL BE 160 U.N.O.
 3. CONCRETE STRENGTH SHALL BE 32 MPa U.N.O.
 4. REFER TO ARCHITECTS DRAWINGS FOR EXTENT AND LOCATION OF HOBS.
 5. REFER TO ARCHITECTS DRAWINGS FOR EXACT SIZE AND LOCATION OF PENETRATIONS.
 6. REFER TO DRGS. S2 & S3 FOR STANDARD DETAILS.



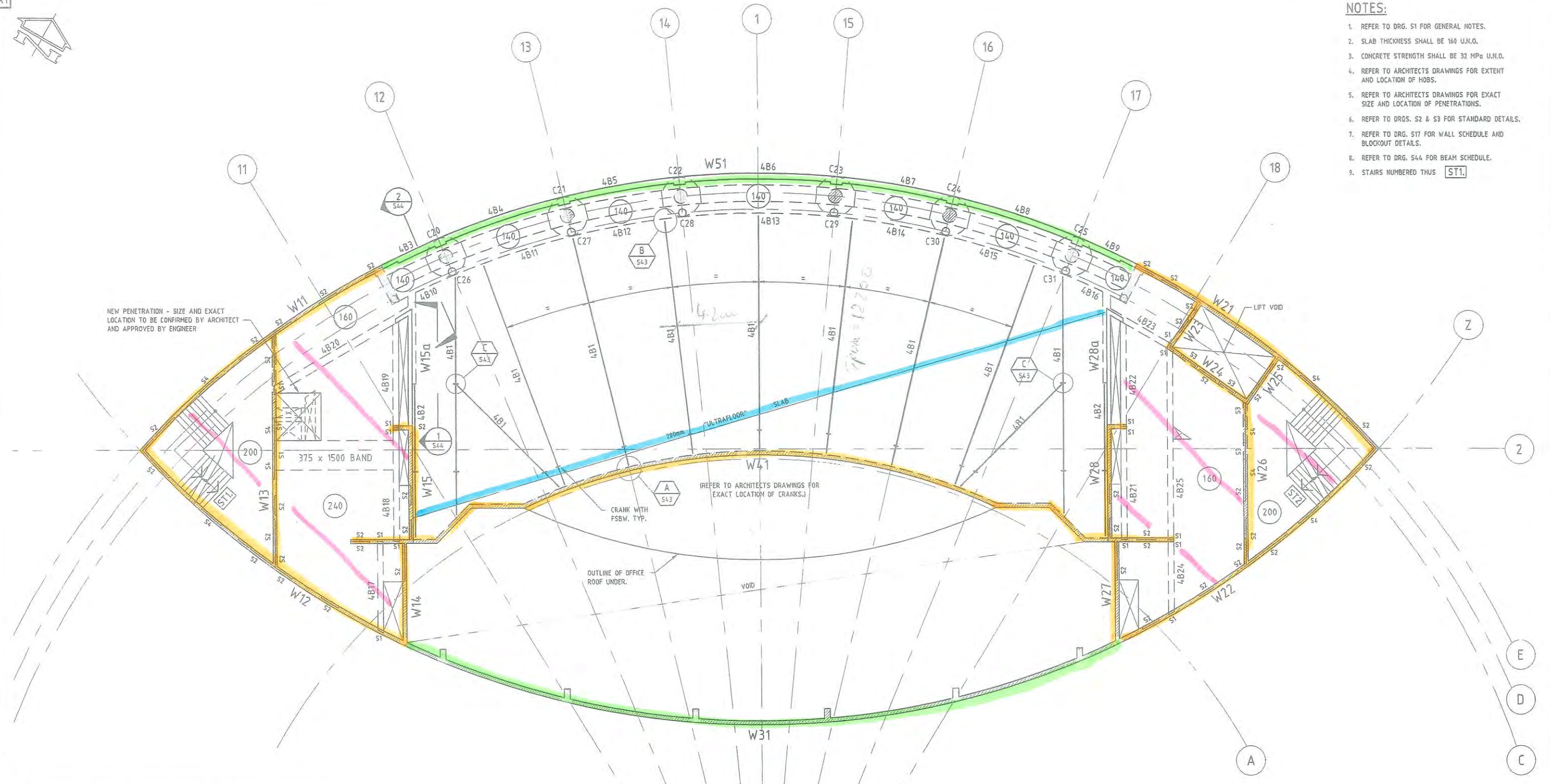
LEVEL 3 CONCRETE PROFILE PLAN

AS BUILT

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<table border="1"> <tr> <th>No.</th> <th>Date</th> <th>Revision Details</th> <th>Verified</th> <th>Approved</th> </tr> <tr> <td>B</td> <td>24.09.96</td> <td>AS BUILT</td> <td></td> <td></td> </tr> <tr> <td>A</td> <td>27.02.96</td> <td>ISSUED FOR CONSTRUCTION.</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>15.02.96</td> <td>ISSUED FOR APPROVAL.</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>3.11.95</td> <td>ISSUED FOR FORMWORK TENDER</td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>12.10.94</td> <td>ISSUED FOR TENDER</td> <td></td> <td></td> </tr> </table>		No.	Date	Revision Details	Verified	Approved	B	24.09.96	AS BUILT			A	27.02.96	ISSUED FOR CONSTRUCTION.			3	15.02.96	ISSUED FOR APPROVAL.			2	3.11.95	ISSUED FOR FORMWORK TENDER			1	12.10.94	ISSUED FOR TENDER			<table border="1"> <tr> <td>Drawn</td> <td>Signed</td> <td>Date</td> </tr> <tr> <td>T.T.</td> <td>T.T.</td> <td>27.02.96.</td> </tr> <tr> <td>Designed</td> <td>Signed</td> <td>Date</td> </tr> <tr> <td>G.R.F.</td> <td>G.R.F.</td> <td>27.02.96.</td> </tr> <tr> <td>Verified</td> <td>Signed</td> <td>Date</td> </tr> <tr> <td>L.B.</td> <td>L.B.</td> <td>27.02.96.</td> </tr> <tr> <td>Approved</td> <td>Signed</td> <td>Date</td> </tr> <tr> <td>J.F.W.</td> <td>J.F.W.</td> <td>27.02.96.</td> </tr> </table>	Drawn	Signed	Date	T.T.	T.T.	27.02.96.	Designed	Signed	Date	G.R.F.	G.R.F.	27.02.96.	Verified	Signed	Date	L.B.	L.B.	27.02.96.	Approved	Signed	Date	J.F.W.	J.F.W.	27.02.96.	<p>Connell Wagner Engineers • Managers</p> <p>Connell Wagner Pty Ltd A.C.N. 005 159 973 116 Military Road, Neutral Bay New South Wales, Australia 2089 Telephone: (02) 9909 5599 Facsimile: (02) 9908 2844</p> <p>Cad File: P:\3536\530.DWG Plot Date: 0956 - 29/02/96</p>	<p>Client: CINEMA + 270 Devonshire Street, Surry Hills, NSW 2010 Ph: (02) 318 0191 Fax: (02) 318 0020</p> <p>Builder: MULTIPLEX CONSTRUCTION Level 3, 1 Kent Street, Sydney NSW 2000 Ph: (02) 256 5000 Fax: (02) 256 5001</p> <p>Architect: HBO + EMTB Level 4, 151 Macquarie Street, Sydney, NSW 2000 Ph: (02) 247 2599 Fax: (02) 251 7681</p>	<p>Project: IMAX THEATRE DARLING HARBOUR</p>	<p>Drawing Title: LEVEL 3 CONCRETE PROFILE PLAN</p> <p>Scale: 1:100</p> <p>CW Project No. 3536</p> <p>Drawing No. S30</p> <p>Revision: B</p>
No.	Date	Revision Details	Verified	Approved																																																								
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- NOTES:**
- REFER TO DRG. S1 FOR GENERAL NOTES.
 - SLAB THICKNESS SHALL BE 160 U.M.O.
 - CONCRETE STRENGTH SHALL BE 32 MPa U.M.O.
 - REFER TO ARCHITECTS DRAWINGS FOR EXTENT AND LOCATION OF HOBS.
 - REFER TO ARCHITECTS DRAWINGS FOR EXACT SIZE AND LOCATION OF PENETRATIONS.
 - REFER TO DRGS. S2 & S3 FOR STANDARD DETAILS.
 - REFER TO DRG. S17 FOR WALL SCHEDULE AND BLOCKOUT DETAILS.
 - REFER TO DRG. S44 FOR BEAM SCHEDULE.
 - STAIRS NUMBERED THUS **ST1**.



LEVEL 4 CONCRETE PROFILE PLAN

DITO LEGEND DRW S21

ULTRA FLOOR ZONE NEEDS FURTHER WORK SHOPPING. (ALLOWANCE \$ HAS BEEN MADE)

AS BUILT

MEMBER REFERENCE SCHEDULE		
MARK	SIZE	REMARKS
4B1	700 WB 173	GRADE 300 PENETRATIONS TO BE 1100 x 450 MAX NEAR SUPPORTS (1700 CLEAR MIN.) & 1350 x 450 MAXIMUM ELSEWHERE, AS DISCUSSED WITH BUILDER, REFER ARCHITECTURAL DRG'S FOR EXACT LOCATIONS & SIZES.
4B2	100 x 100 x 10 EA	ALLOW M20 CAST-IN BOLTS AT 1000 CENTRES

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Rev	Date	Description	Drawn	Signed	Date
C	24.09.96	AS BUILT			
B	21.05.96	PENETRATION REVISED	T.T.		
A	14.03.96	ISSUED FOR CONSTRUCTION.	Designed	Signed	Date
9	6.03.96.	ISSUED FOR APPROVAL.	G.R.F.		
8	29.02.96.	ISSUED FOR APPROVAL.	Verified	Signed	Date
7	28.02.96	ISSUED FOR APPROVAL.	M.W.		
6	27.02.96	ISSUED FOR APPROVAL.	Approved	Signed	Date
5	27.02.96	ISSUED FOR APPROVAL.			

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Engineers • Managers

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New South Wales, Australia 2089
Telephone: (02) 9559 5599
Facsimile: (02) 9559 2044
Cadastral: PA353AVSL0 DWG Plot Date: 15/2 06:03:96

Client: **CINEMA +**
270 Devonshire Street, Surry Hills, NSW 2010
Ph: (02) 318 0191 Fax: (02) 318 0020

Builder: **MULTIPIX CONSTRUCTION**
Level 3, 1 Kent Street, Sydney, NSW 2000
Ph: (02) 256 5000 Fax: (02) 256 5001

Architect: **HBO + EMTB**
Level 4, 151 Macquarie Street, Sydney, NSW 2000
Ph: (02) 247 2599 Fax: (02) 251 7881

Project: **IMAX THEATRE DARLING HARBOUR**

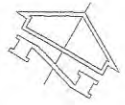
Drawing Title: **LEVEL 4 CONCRETE PROFILE PLAN**

Scale: 1:100

CW Project No: **3536**

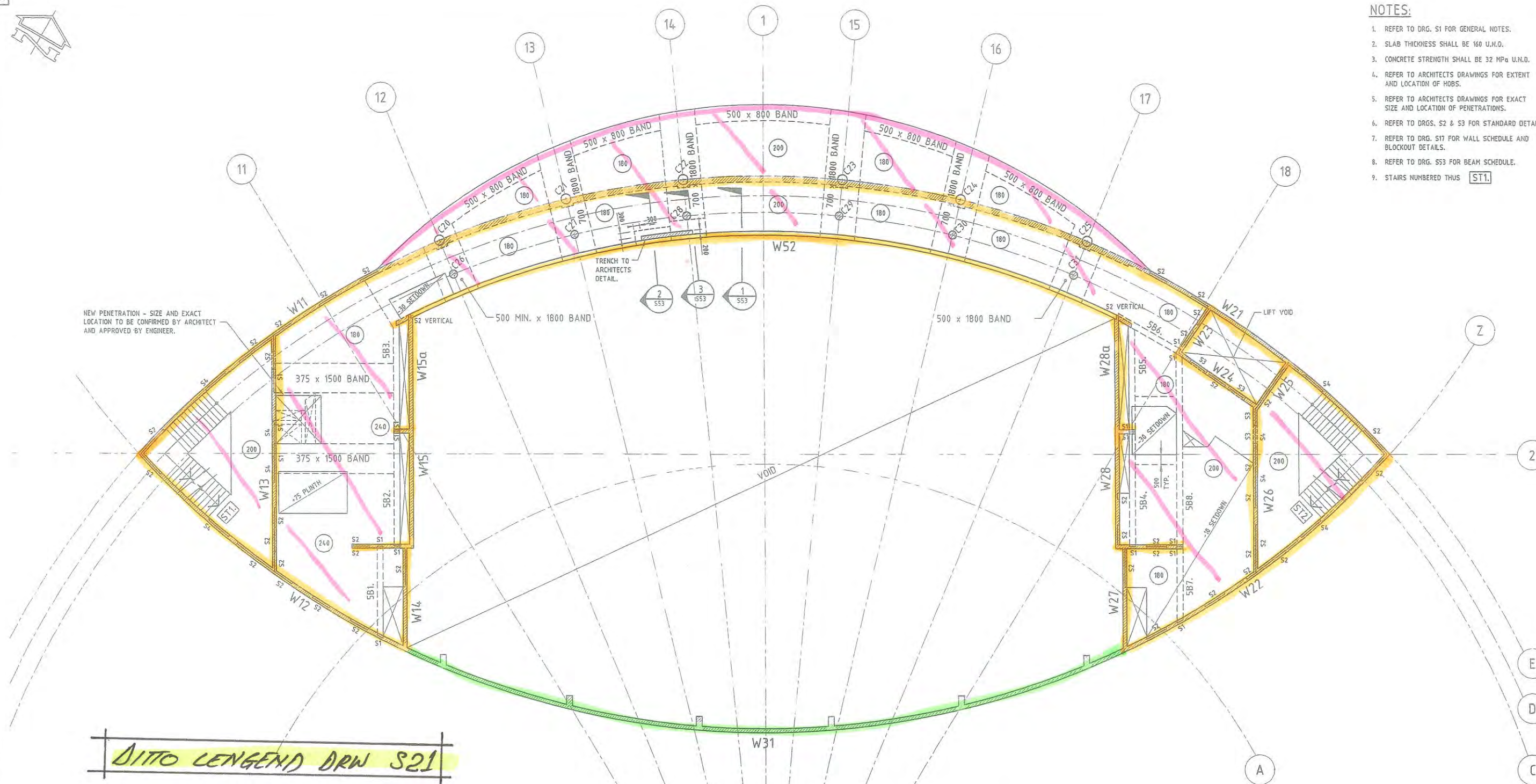
Drawing No: **S40**

Revision: **C**



NOTES:

1. REFER TO DRG. S1 FOR GENERAL NOTES.
2. SLAB THICKNESS SHALL BE 160 U.H.O.
3. CONCRETE STRENGTH SHALL BE 32 MPa U.H.O.
4. REFER TO ARCHITECTS DRAWINGS FOR EXTENT AND LOCATION OF HOBS.
5. REFER TO ARCHITECTS DRAWINGS FOR EXACT SIZE AND LOCATION OF PENETRATIONS.
6. REFER TO DRGS. S2 & S3 FOR STANDARD DETAILS.
7. REFER TO DRG. S17 FOR WALL SCHEDULE AND BLOCKOUT DETAILS.
8. REFER TO DRG. S53 FOR BEAM SCHEDULE.
9. STAIRS NUMBERED THUS **ST1**.



LEVEL 5 CONCRETE PROFILE PLAN

AS BUILT

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No.	Date	Revision Details	Verified	Approved	Drawn	Signed	Date
D	24.09.96	AS BUILT			D.J.W	D.J.W	14.3.96
C	22.05.96	PENETRATION REVISED			D.J.W	D.J.W	14.3.96
B	01.04.96	TRENCH IN LEVEL 5 PROJ. ROOM ADDED.			G.R.F.	G.R.F.	14.3.96
A	16.03.96	ISSUED FOR CONSTRUCTION	M.W.	J.F.W.	M.W.	M.W.	14.3.96
2	3.11.95	ISSUED FOR FORMWORK TENDER			J.F.W.	J.F.W.	14.3.96
1	12.10.94	ISSUED FOR TENDER					

Connell Wagner
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New South Wales, Australia 2089

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Facsimile: (02) 9509 2044

Cad File: P:\3536\550.DWG Plot Date: 1054 - 0104.96

CINEMA +
270 Devonshire Street, Surry Hills, NSW 2010
Ph: (02) 318 0191 Fax: (02) 318 0020

MULTIPLEX CONSTRUCTION
Level 3, 1 Kent Street, Sydney, NSW 2000
Ph: (02) 256 5000 Fax: (02) 256 5001

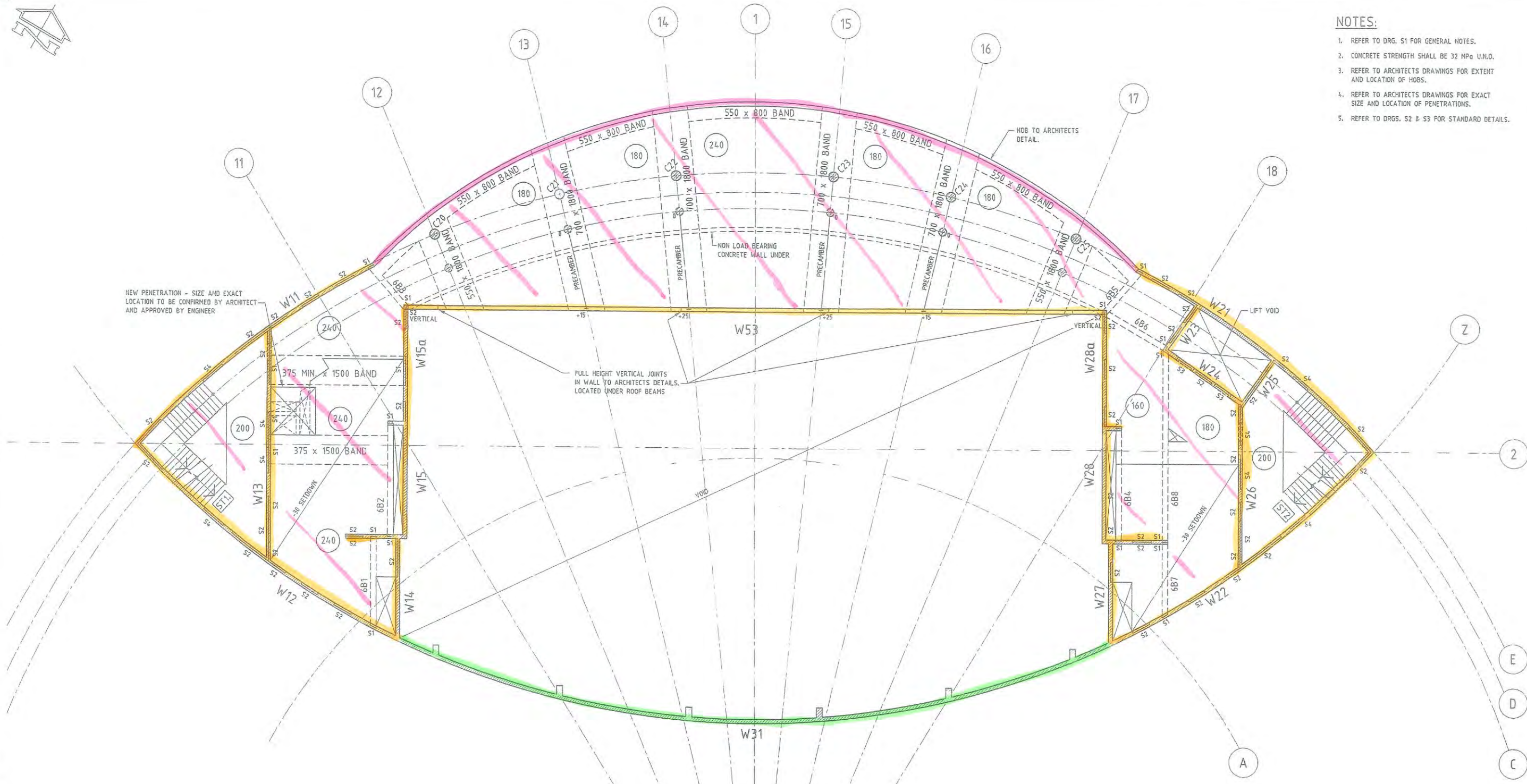
HBO + EMTB
Level 4, 151 Macquarie Street, Sydney, NSW 2000
Ph: (02) 247 2599 Fax: (02) 251 7681

Project: **IMAX THEATRE DARLING HARBOUR**

Drawing Title: LEVEL 5 CONCRETE PROFILE PLAN		Scale: 1:100		CW.Project No. 3536	Drawing No. S50	Revision: D
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- NOTES:**
1. REFER TO DRG. S1 FOR GENERAL NOTES.
 2. CONCRETE STRENGTH SHALL BE 32 MPa U.N.O.
 3. REFER TO ARCHITECTS DRAWINGS FOR EXTENT AND LOCATION OF HOBS.
 4. REFER TO ARCHITECTS DRAWINGS FOR EXACT SIZE AND LOCATION OF PENETRATIONS.
 5. REFER TO DRGS. S2 & S3 FOR STANDARD DETAILS.



LEVEL 6 CONCRETE PROFILE PLAN

AS BUILT

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No.	Date	Revision Details	Verified	Approved
C	24.09.96	AS BUILT		
B	22.05.96	PENETRATION REVISED		
A	11.04.96	ISSUED FOR CONSTRUCTION		
5	19.03.96	ISSUED FOR APPROVAL		
4	5.03.96	ISSUED FOR APPROVAL		
3	29.02.96	ISSUED FOR APPROVAL		
2	3.11.95	ISSUED FOR FORMWORK TENDER		
1	12.10.94	ISSUED FOR TENDER		

Drawn	Signed	Date
T.T.		
Designed	Signed	Date
G.R.F.		
Verified	Signed	Date
M.W.		
Approved	Signed	Date
J.F.W.		

Connell Wagner
Engineers • Managers

Connell Wagner Pty Ltd
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116 Military Road, Neutral Bay
New South Wales, Australia 2089
Telephone: (02) 9509 5599
Facsimile: (02) 8908 2044

Cad File: P:\3536\560.DWG Plot Date: 13/49 - 20/03/96

CINEMA +
270 Devonshire Street, Surry Hills, NSW 2010
Ph: (02) 318 0191 Fax: (02) 318 0020

MULTIPLEX CONSTRUCTION
Level 3, 1 Kent Street, Sydney, NSW 2000
Ph: (02) 256 5000 Fax: (02) 256 5001

HBO + EMTB
Level 4, 151 Macquarie Street, Sydney, NSW 2000
Ph: (02) 247 2599 Fax: (02) 251 7681

Project: **IMAX THEATRE DARLING HARBOUR**

Drawing Title: **LEVEL 6 CONCRETE PROFILE PLAN**

Scale: 1:100

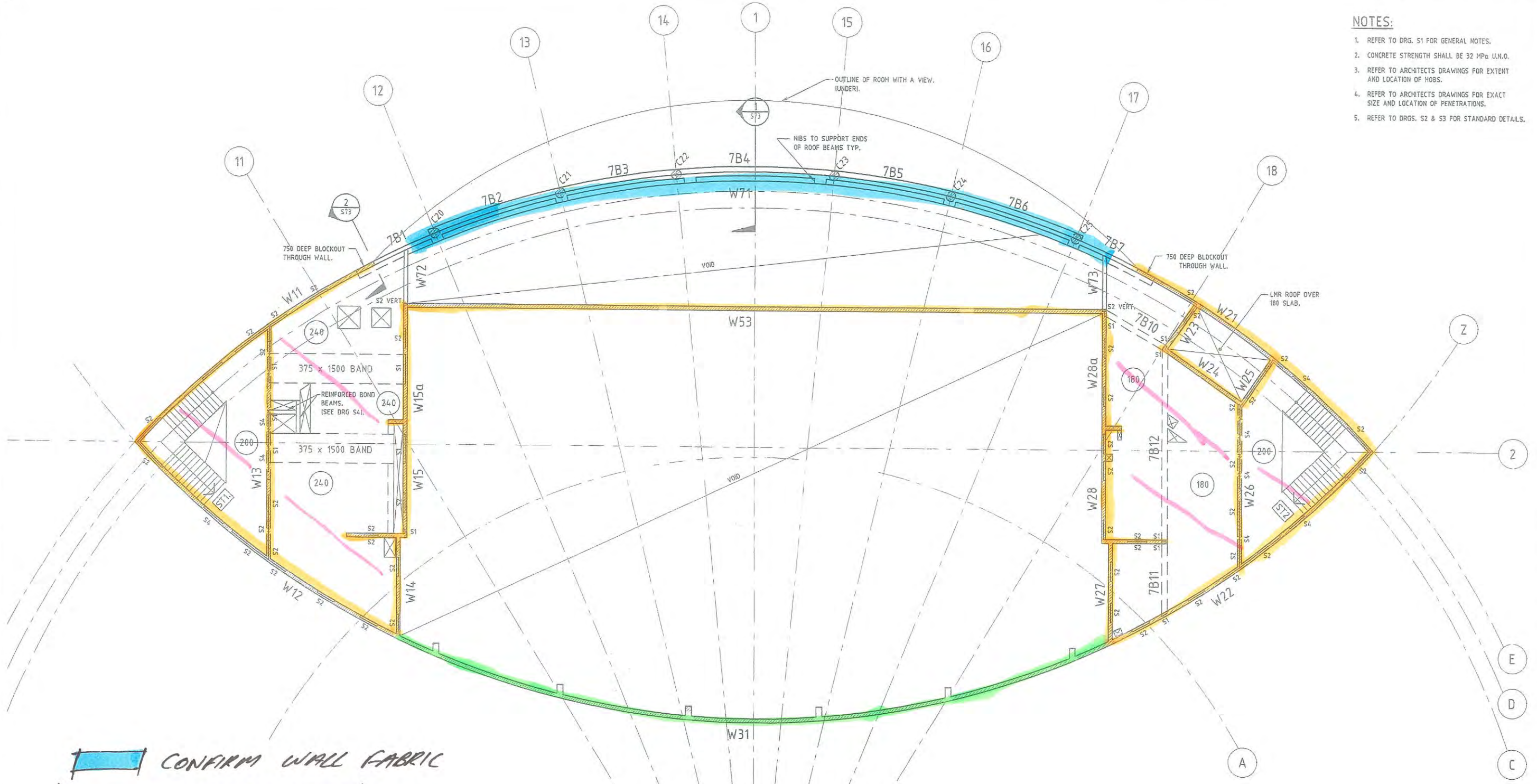
CW/Project No. **3536**

Drawing No. **S60**

Revision: **C**

A1

- NOTES:**
1. REFER TO DRG. S1 FOR GENERAL NOTES.
 2. CONCRETE STRENGTH SHALL BE 32 MPa U.N.O.
 3. REFER TO ARCHITECTS DRAWINGS FOR EXTENT AND LOCATION OF HOBS.
 4. REFER TO ARCHITECTS DRAWINGS FOR EXACT SIZE AND LOCATION OF PENETRATIONS.
 5. REFER TO DRGS. S2 & S3 FOR STANDARD DETAILS.



CONFIRM WALL FABRIC

DITTO LEGEND DRW S21

LEVEL 7 CONCRETE PROFILE PLAN

AS BUILT

No.	Date	Revision Details	Verified	Approved
8	24.09.96	AS BUILT		
A	15.08.96	ISSUED FOR CONSTRUCTION.		
5	28.03.96	ISSUED FOR APPROVAL		
4	26.03.96	ISSUED FOR APPROVAL		
3	6.03.96	ISSUED FOR APPROVAL		
2	3.11.95	ISSUED FOR FORMWORK TENDER		
1	12.10.94	ISSUED FOR TENDER		

Drawn	Signed	Date
T.T.		
G.R.F.		
M.W.		
J.F.W.		

Connell Wagner
Engineers • Managers

Connell Wagner Pty Ltd
A.C.N. 005 139 873
116 Military Road, Neutral Bay
New South Wales, Australia 2089
Telephone: (02) 9500 5599
Facsimile: (02) 9500 2044
Cod File: P:\3536\S70.DWG Plot Date: 0930 - 15/08/96

Client: **CINEMA +**
270 Devonshire Street, Surry Hills, NSW 2010
Ph: (02) 318 0191 Fax: (02) 318 0020

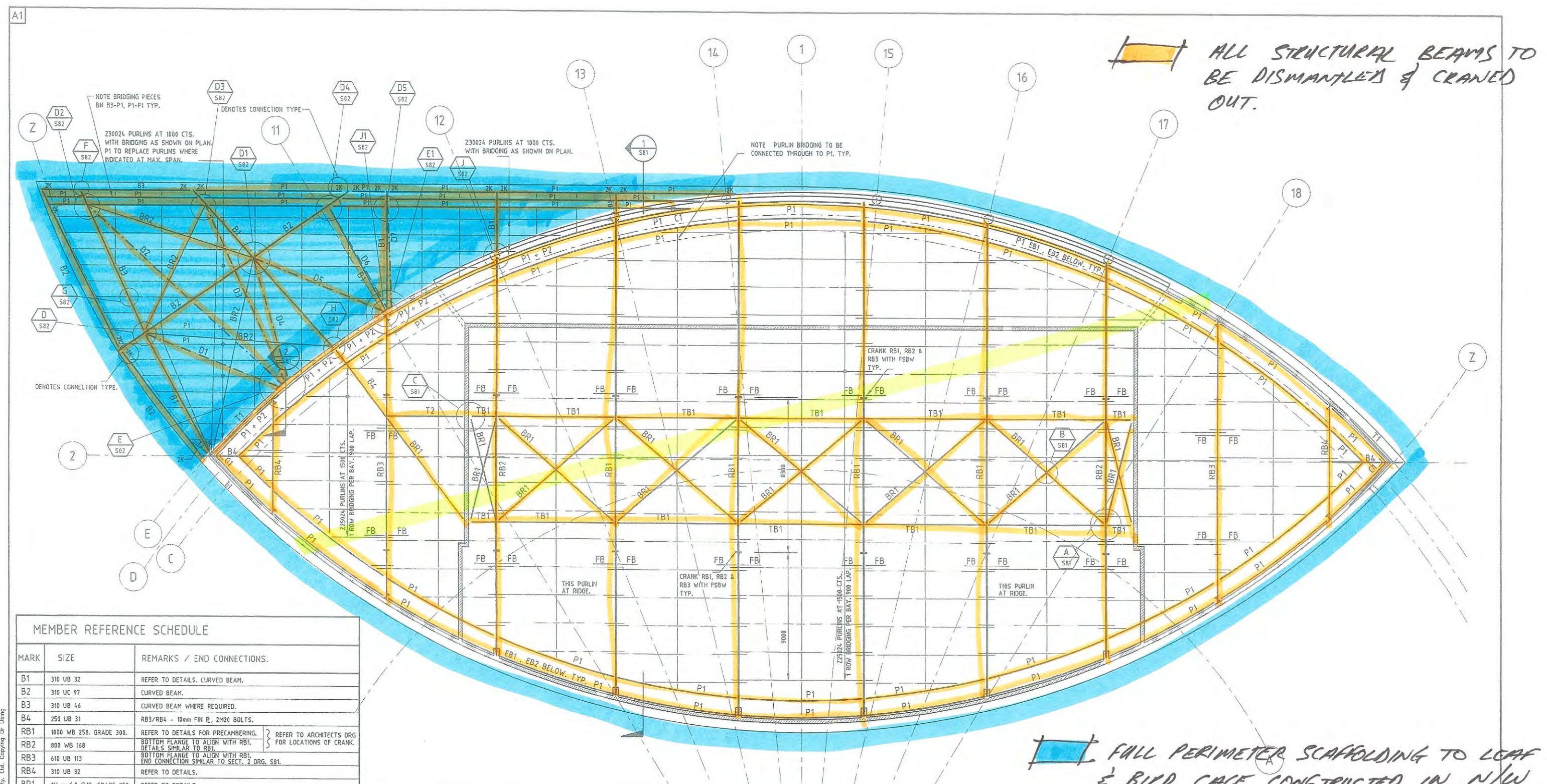
Builder: **MULTIPLEX CONSTRUCTION**
Level 3, 1 Kent Street, Sydney, NSW 2000
Ph: (02) 256 5000 Fax: (02) 256 5001

Architect: **HBO + EMTB**
Level 4, 151 Macquarie Street, Sydney, NSW 2000
Ph: (02) 247 2568 Fax: (02) 251 7681

Project: **IMAX THEATRE DARLING HARBOUR**

Drawing Title: LEVEL 7 CONCRETE PROFILE PLAN		Scale: 1:100		CW Project No. 3536		Drawing No. S70		Revision: B	
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ALL STRUCTURAL BEAMS TO BE DISMANTLED & CRANED OUT.

FULL PERIMETER SCAFFOLDING TO LEAF & BIRD CAGE CONSTRUCTED IN N/W ROOF ZONE. SOLID SCREENS TO LINE FACE OF SCAFFOLD ABOVE ROADWAYS (IDEALLY FULL SOLID SCREENS TO ALL SCAFFOLD AREAS)

DECLAD ROOFSHEETING & MEMBERS BY HAND. AS BUILT

MEMBER REFERENCE SCHEDULE		
MARK	SIZE	REMARKS / END CONNECTIONS.
B1	310 UB 32	REFER TO DETAILS. CURVED BEAM.
B2	310 UC 97	CURVED BEAM.
B3	310 UB 44	CURVED BEAM WHERE REQUIRED.
B4	250 UB 31	RB3/RB4 - 10mm FIN R, 2M20 BOLTS.
RB1	1800 WB 258. GRADE 300.	REFER TO DETAILS FOR PRECAMBERING.
RB2	800 WB 168	BOTTOM FLANGE TO ALIGN WITH RB1. DETAILS SIMILAR TO RB1.
RB3	610 UB 113	BOTTOM FLANGE TO ALIGN WITH RB1. END CONNECTION SIMILAR TO SECT. 2 DRG. S81.
RB4	310 UB 32	REFER TO DETAILS.
BR1	114 x 6.0 CHS. GRADE 350.	REFER TO DETAILS.
BR2	20mm Ø ROD	BR2 PASSES THROUGH HOLES IN PURLINS.
P1	200 PFC	REFER TO DETAILS. CURVED TO SUIT GUTTER PROFILE WHERE REQUIRED.
P2	180 PFC	RESTRAINS PURLINS IN OVERHANG
TB1	219 x 8.2 CHS. GRADE 350.	REFER TO DETAILS.
FB	75 x 75 x 5 L.	FLY BRACING. REFER TO DETAIL 1A DRG. S81.
C1	150 x 150 x 12 L.	B4 - 10 CAP R 4M20 BOLTS. MIN EDGE DIST. & SPACING = 160mm. INSIDE FACE OF WALL - 4M20 CHEMSET ANCHORS.
T1	90 x 90 x 6 L.	B4 - 10 FIN R 2M20 BOLTS. MIN EDGE DIST. & SPACING = 160mm. INSIDE FACE OF WALL - 4M20 CHEMSET ANCHORS.
T2	150 x 100 x 8 L.	10mm R, 8 CFW 2M20
EB1	150 UC 23	150 PFC BRACKET, 2M20 BOLTS. STRAIGHT MEMBER
EB2	180 PFC.	10 FIN R, 2M20 BOLTS. STRAIGHT MEMBER

MEMBER REFERENCE SCHEDULE		
MARK	SIZE	REMARKS / END CONNECTIONS.
D1	273 x 6.4 CHS	TAPERED ENDS - REFER TO DETAILS.
D2	323 x 6.4 CHS	TAPERED ENDS - REFER TO DETAILS.
D3	273 x 6.4 CHS	TAPERED ENDS - REFER TO DETAILS.
D4	273 x 6.4 CHS	TAPERED ENDS - REFER TO DETAILS.
D5	273 x 6.4 CHS	TAPERED ENDS - REFER TO DETAILS.
D6	219 x 6.4 CHS	TAPERED ENDS - REFER TO DETAILS.
D7	219 x 6.4 CHS	TAPERED ENDS - REFER TO DETAILS.

ROOF MARKING PLAN

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<table border="1"> <tr> <th>No.</th> <th>Date</th> <th>Revision Details</th> <th>Verified</th> <th>Approved</th> </tr> <tr> <td>1</td> <td>24.09.96</td> <td>AS BUILT</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>6.05.96</td> <td>MEMBER SCHEDULE SIZE "D" REVISED</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>26.03.96</td> <td>ISSUED FOR CONSTRUCTION.</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>22.02.96</td> <td>B2 ALTERED. ISSUED FOR TENDER.</td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>21.02.96</td> <td>GENERAL REVISION. ISSUED FOR TENDER.</td> <td></td> <td></td> </tr> <tr> <td>6</td> <td>19.02.96</td> <td>ISSUED FOR INFORMATION</td> <td></td> <td></td> </tr> <tr> <td>7</td> <td>04.01.96</td> <td>ISSUED FOR INFORMATION</td> <td></td> <td></td> </tr> <tr> <td>8</td> <td>12.10.94</td> <td>ISSUED FOR TENDER</td> <td></td> <td></td> </tr> </table>	No.	Date	Revision Details	Verified	Approved	1	24.09.96	AS BUILT			2	6.05.96	MEMBER SCHEDULE SIZE "D" REVISED			3	26.03.96	ISSUED FOR CONSTRUCTION.			4	22.02.96	B2 ALTERED. ISSUED FOR TENDER.			5	21.02.96	GENERAL REVISION. ISSUED FOR TENDER.			6	19.02.96	ISSUED FOR INFORMATION			7	04.01.96	ISSUED FOR INFORMATION			8	12.10.94	ISSUED FOR TENDER			<table border="1"> <tr> <td>Drawn</td> <td>Signed</td> <td>Date</td> </tr> <tr> <td>M.G.M.</td> <td>M.G.M.</td> <td>26.3.96</td> </tr> <tr> <td>Designed</td> <td>Signed</td> <td>Date</td> </tr> <tr> <td>O.O'R.</td> <td>O.O'R.</td> <td>26.3.96</td> </tr> <tr> <td>L.B.</td> <td>L.B.</td> <td></td> </tr> <tr> <td>Verified</td> <td>Signed</td> <td>Date</td> </tr> <tr> <td>J.F.W.</td> <td>J.F.W.</td> <td>26.3.96</td> </tr> <tr> <td>Approved</td> <td>Signed</td> <td>Date</td> </tr> <tr> <td>J.F.W.</td> <td>J.F.W.</td> <td>26.3.96</td> </tr> </table>	Drawn	Signed	Date	M.G.M.	M.G.M.	26.3.96	Designed	Signed	Date	O.O'R.	O.O'R.	26.3.96	L.B.	L.B.		Verified	Signed	Date	J.F.W.	J.F.W.	26.3.96	Approved	Signed	Date	J.F.W.	J.F.W.	26.3.96	<p>Connell Wagner Engineers + Managers</p> <p>Connell Wagner Pty Ltd A.C.N. 005 139 873 116 Military Road, Neutral Bay New South Wales, Australia 2089 Telephone: (02) 9909 5599 Facsimile: (02) 9908 2044</p>	<p>Client: CINEMA 270 Devonshire Street, Surry Hills, NSW 2010 Ph: (02) 9362 9191 Fax: (02) 318 0020</p> <p>Builder: MULTIPLEX CONSTRUCTION Level 3, 1 Kent Street, Sydney, NSW 2000 Ph: (02) 256 5000 Fax: (02) 256 5001</p> <p>Architect: HBO + EMTB Level 4, 151 Macquarie Street, Sydney, NSW 2000 Ph: (02) 247 2599 Fax: (02) 251 7661</p>	<p>Project: IMAX THEATRE DARLING HARBOUR</p> <p>Drawing Title: ROOF MARKING PLAN</p> <p>Scale: 1:100</p> <p>CW.Project No. 3536</p> <p>Drawing No. S80</p> <p>Revision: C</p>
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PROCEDURE FOR UNEXPECTED DISCOVERY OF HAZARDOUS MATERIAL

Objectives

To identify any asbestos or hazardous building materials in site buildings or structures to be refurbished, disturbed or demolished prior to site works.

To appropriately remove any asbestos or hazardous building materials in site buildings or structures to be refurbished, disturbed or demolished prior to site works.

To appropriately store, transport and dispose of all potential asbestos and hazardous building materials to a EPA licensed waste facility.

To prevent any impact to air quality or site work areas and adjoining properties via inappropriate handling, removal or disposal of asbestos or other hazardous building materials.

Key Management Issues

Asbestos is commonly used as an acoustic insulator, brake pads (i.e. lifts), thermal insulation (i.e. pipes and cables), fire proofing (i.e. steel beams) and in building materials such as ceiling tiles or wall panels, pipes, floor tiles, linoleum and mastic. Asbestos is made up of microscopic bundles of fibres that may become airborne when distributed. These fibres may become inhaled into the lungs with significant potential risks to human health.

Other key hazardous building products include fluorescent light fittings with capacitors containing PCBs and building materials coated with lead-based paints. Both of these materials pose significant potential risks to the environment and human health if removed, handled and/or disposed inappropriately.

Given the age and condition of buildings within the proposed redevelopment footprint, it is likely that hazardous building materials exist within the buildings. As the proposed redevelopment will include the demolition of these buildings and disposal of materials, safe work measures need to be implemented to ensure that environmental (PCBs and lead) and human health risks are appropriately minimised and managed during this process.

These measures must be instituted to prevent risks such as:

- Exposure of site workers, site personnel or adjacent land users to asbestos or lead dust during demolition (Environmental Class P1 Risk)
- Inappropriate disposal of asbestos contaminated waste (Environmental Class P2 Risk)

Site Controls

The first step in the sequence of operations is to plan the environmental management activities and integrate these with the construction program.

A Hazardous Materials Building Survey will be conducted (if deemed necessary) to identify all Hazardous building materials to assist in the management of removal, handling, storage and disposal of such materials.

Unexpected find policy.

1. If working in an area and a suspicious material is discovered then notify Mann Group Demolition supervisor.
2. Mann Group demolition supervisor is to notify Grocon site representatives
3. Mann Group demolition supervisor is to ensure the material is inspected by a competent person.
4. If the material still cannot be identified then the area is to be banded off with sufficient signage and all personnel working near the area made aware of the situation.
5. Mann Group demolition supervisor is to contact Hygienist for inspection and test if required.
6. Hygienist to supply test results, and or methodology for removal (if deemed as hazardous)
7. Mann Group demolition supervisor to co-ordinate removal (if deemed as hazardous)
8. Hygienist to inspect area and give a written all clear to enable work area to be reopened.
9. Work area to be reopened for normal operations.

Demolition Phase:

The removal, handling, storage and disposal of hazardous building materials (including asbestos) during the demolition program shall be minimised by incorporation of appropriate control measures in the specification and contract arrangements, and quality assurance inspection and monitoring during demolition.

The installation and maintenance of controls during demolition phase shall be in accordance with the following principles:

- A Hazardous Materials Building Register is to be prepared for the site prior to the demolition, disturbance or removal of any site buildings and structures to identify the presence, location and type of hazardous building materials present on or within the proposed structures to be demolished. The register will incorporate hazard identification tags on actual structures and be included in the HS&DG Register.
- A HS&DG Register is to be maintained. This document is to be supported by MSDS (supplied by the contractor) for the relevant hazardous materials and dangerous goods outlined in the HS&DG Site Register. This information is to be obtained prior to commencement on site and filed in the site First Aid files.
- All hazardous building materials will be handled and removed in accordance with SWEMS and supported, where required, by inspection and monitoring visits by the relevant Occupational Hygiene Surveyors. Appropriate mitigation measures will be implemented, where required, to stabilize waste during the removal, storage or disposal process.
- All hazardous building material waste will be stored in appropriately designed bins (i.e. asbestos bin will be double-lined with HDPE liner) within designated waste storage areas on site.
- No hazardous building materials will be re-used or disposed on site.
- All hazardous building material waste will be disposed to an approved facility and the area remediated to the satisfaction of an Occupational Hygiene Surveyor and the DEC. Records of disposal and clean-up measures are to be maintained with site records.
- Emergency procedures regarding exposure to hazardous building materials shall be displayed in a prominent position within the site working area or addressed in the site induction with the appropriate training included.

Training

Communication and education material on the noise and vibration controls and procedures will be part of the Site Environmental Awareness Program that will be incorporated into the site induction program.

Performance Measures

- Appropriate MSDS for hazardous building materials maintain in site First Aid Files.
- A hazardous materials building survey report to be prepared.
- The HS&DG Register to include list of buildings and materials containing hazardous materials.
- Hazardous building materials to be identified by tagging (if they are to remain)
- Appropriate MSDS in place for hazardous building materials present on site.
- No waste disposal incidents or disposal of wastes without appropriate documentation/approvals.
- Non detect air quality monitoring results.

Monitoring and Reporting

An initial hazardous building survey is to be performed on the site with the findings presented in the form of a report and Hazardous Building Materials Register. The Register will be incorporated into the site HS&DG Register to be maintained by the nominated SM. Supporting MSDS are to be submitted by Subcontractors and filed by Grocon in the First Aid files.

Environmental and human health incidents shall be reported immediately to the Mann Group demolition supervisor who in turn will report to the Grocon EHS Manager. The CM shall if required, report the environmental incident and corrective action within 7 days of the event to the relevant authorities nominated local office.

Air quality monitoring performed over the duration of the demolition works and for a duration after the completion of the works will include monitoring for asbestos and lead dust.

The SM will carry out routine site inspections to check hazardous material removal and disposal procedures. Where required, an independent Occupational Hygiene Surveyor will be employed by the contractor to confirm adequate removal of these materials and a return to safe working conditions. In the event remedial measures are required, Grocon's project EHS Manager will detail the proposed measures along with the recommendations for implementation to the CM/SM and Client if deemed appropriate.

Asbestos (& Hazardous Building Material) Management Implementation Plan

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
Hazardous Building Material Register					
Hazardous building materials to be identified in Hazardous Materials Building Survey	Prior to demolition works commencing	Contractor to supply Hazardous Building Materials Register.	CM	Preparation of a Hazardous Building Materials Register.	All Hazardous Building Materials listed in Register. All Hazardous Building Materials tagged. Appropriate MSDS present in file.
Hazardous Building Materials Register to be maintained in HS&DG Register	At all times	Incorporate information in Registers.	SM	Inspections prior, during and after materials removal.	Register is current.
Demolition					
Removal of asbestos and related building products during demolition	At all times	Removal procedures in contractor SWMS (i.e. sprays to stabilise asbestos/dust). Dust monitoring to be performed. Approved licensed contractor	Demolition Supervisor	As required. Inspection by Occupational Hygiene Surveyor for clearance.	No asbestos dust particulates detected during monitoring. Correct SWMS followed. Appropriate PPE worn.
Removal of PCBs in any light fittings during demolition	At all times	Removal procedures in contractor SWMS. Approved licensed contractor	Demolition Supervisor	As required	No damaged light fittings during the removal process. Correct SWMS followed. Appropriate PPE worn.
Removal of timber/metal structures containing lead-based paints during demolition	At all times	Removal procedures in contractor SWMS (i.e. sprays to stabilise paints /dust). Dust monitoring to be performed. Approved licensed contractor.	Demolition Supervisor	As required	Minimal disturbance to paint materials achieved. Correct SWMS followed. Appropriate PPE worn.
Temporary storage & Disposal					

RIBBON PROJECT



Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
Storage of asbestos, PCBs in light fittings and Lead-based paints in appropriate waste disposal bins.	At all times	Waste disposal bins provided and marked. SWMS supplied.	Demolition Supervisor	As required	Waste correctly stored in marked bins. No cross contamination of wastes.
Transport of asbestos, PCBs in light fittings and Lead-based paints during demolition.	At all times	Approved licensed waste transporter used.	Demolition Supervisor	As required	All transport vehicles covered with appropriate signage and permits.
Disposal of asbestos, PCBs in light fittings and Lead-based paints during demolition.	At all times	Approved DEC licensed landfill facility used.	Demolition Supervisor	As required	Landfill waste dockets provided. Landfill dockets correspond to removed waste volumes/types.

Procedure for unexpected discovery of Hazardous Materials

